天津外国语大学

研究生学位论文

**Quantitative Analysis on the Competitiveness of the U.S. Cultural and Creative Industries**

美国文化创意产业竞争力实证研究

学 生 姓 名： 许慧敏 申请学位级别： 硕 士

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**Quantitative Analysis of the Competitiveness of the**

**U.S. Cultural and Creative Industries**

By

Xu Huimin

A THESIS SUBMITTED TO GRADUATE SCHOOL AND SCHOOL OF ENGLISH STUDIES

IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

Under the Supervision of Professor Gao Jiayong

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原创性声明

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致 **谢**

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摘 要

艺术及文化相关产业，也称为文化创意产业，已经逐渐成为国家经济的重要经济产业并且成为后工业时代引领未来经济发展的新增长型产业。文化产业直接为社会提供经济效益，包括创造就业机会、吸引投资、产生税收收入，并通过旅游业刺激当地经济发展和居民消费。作为最有经济价值的产业之一，文化产业作为新兴经济已经成为很多国家的主要出口部门和就业机会来源。

美国长期以来向世界展示了其文化创意产业的全球影响力和持续繁荣的竞争力。2012年美国核心版权产业的附加值首次超过了一万亿美元。2013年美国文化产业的经济贡献占其国内生产总值达到了11.12%。因此，研究美国文化创意产业的优势及特点对于发展中国家尤其是中国发展文化创意产业具有重要借鉴实践价值。

本文第一章绪论首先介绍了论文选题的背景、研究意义与方法。随后，本文第二章为文化产业理论概述，对国内外相关理论和研究进行了阐述。第三章主要解释了文化产业相关定义和分类，以及文化产业国际竞争力的相关理论。第四章分析美国文化产业的经济地位、发展历程和发展现状。第五章通过以波特的“钻石模型”的四个产业竞争力影响因素为基础，采用了数据统计和定量方法分析了26个国家的文化创意产业竞争力。最后，本文全方位分析归纳了美国文化产业成功的因素。通过借鉴美国文化产业发展的成功经验，我国可以结合自身文化创意产业特点，提升我国文化产业的国际竞争力。

关键词：文化经济；竞争力；文化创意产业

Arts and culture-related industries, also known as" cultural and creative industries" (CCIs), is becoming important economic sectors for countries' economy and leading the future economic development as a new economic growth point. CCIs provide direct economic benefits to societies and communities: they create jobs, attract investments, generate tax revenues, and stimulate local economies through tourism and consumer purchases. As one of the most economically valuable industries, CCIs have been promoted as a leading export sector and a source of jobs in the" new economy" for many countries.

The U. S. has demonstrated its global influence and competitiveness with its long lasting booming cultural industries. The value added by the U. S. core copyright industries to

U. S. GDP has exceeded one trillion dollars for the first time in 2012. The contribution of the

U. S. CCIs to the U. S. GDP has reached 11.12% in 2013. Thus, researching the competitiveness of the American CCIs is of important reference for other countries or areas especially for China.

Chapter one introduces the research background, significance and methodology of this thesis. Chapter two illustrates relevant theories of the CCIs including previous studies abroad and studies in China. Definition and classification of the CCIs, as well as related theories such as industrial competitiveness theory are described in chapter three. Chapter four analyses the economic status of the U. S. CCIs to the U. S. economy, history and current development. Based on Porter's diamond model, 26 countries' competitiveness of their CCIs are studied and analyzed through statistical method in chapter five. In the final chapter, conclusions of the factors that leads to the success of the U. S. CCIs are reached. By studying the successful experience of the U. S. CCIs, countries like China could integrate its own cultural characteristics and increase its CCIs competitiveness in the global competition.

**Key words:** Cultural economy; Competitiveness; Cultural and creative industries

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**Chapter One Introduction**

In the contemporary world of the 21st century, the whole global economy is experiencing fast changes and complex challenges due to technology innovation and global competition. Cultural and Creative Industries (CCIs) have been interacting with culture, economics, technology, and became one of the most critical industries for many countries. They are not only driving the economic growth, but also promoting cultural diversity and development. The research background, research significance, and research methodology of this thesis are discussed in the first chapter.

## **1.1** **Research background**

Nowadays, the global economy has transformed from the industrial era of manufacturing to the post-industrial economy characterized with services supplying and information communication. Cultural and Creative Industries (CCIs), also called as the golden industries and eco-industries, have been recognized as soft power in countries' economy acceleration, culture expansion and society development. The development of the CCIs is beneficial to the society and the economy, including creating employment opportunities, increasing income, and improving communications and understanding among people in different nations and regions. Therefore, countries including developing and developed countries have attached great importance to CCIs by providing favorable support financially and legally.

Among those countries, the United States has been continuing to dominate the global cultural market with incomparable competitiveness. With advanced technology and huge domestic consumption ability, the U. S. CCIs are growing rapidly and the U. S. cultural products are exporting to everywhere around the world, creating great economic contribution to the U. S. economy. The U. S. CCIs are of strong global competitiveness resulting to the

Copyright protection and digital technology development. On one hand, the U. S. government has undertaken intellectual property right to protect its CCIs, as well as providing financial and consultant help so as to ensure long-term benefits and advantages. On the other hand, new media and technology has assisted the U. S. CCIs to expand internationally. These two major reasons lead to the sustainability of the U. S. CCIs among all the countries. Since 2002, its consumer spending on the arts and culture products has remained in the $150 million range. Even in a slow economy during 2008 to 2009, the U. S. CCIs continued to grow steadily. In 2011, the value added from arts and cultural production accounted for almost 3.2%, or $504 billion of the U. S. GDP. Over two million workers were employed in the American cultural industries, accounting for 2.1% of all U. S. jobs. Up to 2013, the America's contribution of CCIs to its GDP has increased to 11.12%, devoting over one trillion dollars of value added to the national economy. It is concluded that the U. S. CCIs are of the most valuable industries and they have been substantially expanding at a high speed, such as American films, music, news, arts, sports, food, and etc.

## **1.2** **Research significance**

The U. S. CCIs can be considered as the leader among global cultural industries. CCIs are also called" copyright industries" in the United States, which have driven the growth of economy and increased employment, as well as improved people's living standard. In 2012, the value added of the core copyright industries to the U. S. GDP exceeded one trillion dollars ($1,015.6 billion) for the first time, accounting for 6.48% of the U. S. economy. The number was a large increase from $965 billion in 2011 and $885 billion in 2009, according to research released by the International Intellectual Property Alliance (IIPA). In 2012, nearly five and a half million U. S. workers were hired in the copyright industries and the number grew at an aggregate annual rate of 4.7% from 2009 to 2012, which was twice the rate of the growth for the U. S. economy. With the data mention above, it is confirmed that the U. S. copyright industries have continually outperformed the rest industries of the U. S. economy in terms of the real annual growth rates and economic contribution. In light of the impressive

Achievements made by the U. S. CCIs, studies on the competitiveness of American CCIs are significant both in practice and in theory.

### **1.2.1** **Practical significance**

As CCIs is of huge economic contribution to economy and society, many countries have considered CCIs as one of the most essential sectors in their national strategies. According to the United Nations Commission on Trade, Aid, and Development (UNCTAD), the world trade in creative goods and services grew at an annual average rate of 8.7% between 2000 and 2005. The world trade of creative goods and services broke a record of

$624 billion in 2011 and the number doubled from 2002 to 2011. Growth of the CCIs in developing countries is much faster and stronger, with 12.1% annually over the same period. The U. S. CCIs have been prospering and dominating the global cultural industries with strong competitiveness and sustainability, more than 11.1 million workers are employed in the U. S. copyright industries, accounting 8.35% of all U. S. employment. As economic status of the CCIs in America is irreplaceable and impressive, other countries especially developing countries have been trying to develop their own CCIs in order to catch up with the United States. For instance, China has tried to revitalize its cultural industries since the beginning of

The 21st century. However, compared with the U. S. CCIs, China still needs to explore diverse

Pathways to develop its CCIs. Therefore, studying on the U. S. CCIs is of practical significance for other countries and regions especially for China.

### **1.2.2** **Theoretical significance**

Unlike other industries of the economy, CCIs are difficult to be measured in terms of definition and economic size, which is why many scholars keep having debates on them. Apart from this, many people working in CCIs, including the most influential celebrities, do not consider themselves as working in an" industry" at all. They tend to define themselves as creators, entrepreneurs, artists, or social activists rather than workers in CCIs. All these are owing to the fact that CCIs cover a vast scope and range, which cannot be simply defined into

Detailed terms and specific ranges.

Foreign scholars and Chinese scholars have conducted much research on American CCIs for years. On one hand, they are similar in defining and classifying the CCIs. Terms like" creative industries"，“cultural industries"，”copyright industries" are of little difference for them. On the other hand, both the foreign studies and domestic studies on CCIs share several major differences. In the first place, foreign scholars mainly focus on general definitions, classifications, and features of the CCIs. They center on the elaboration of copyright system and specific sectors, such as film industry and music industry, and use economic indicators or models to describe the CCIs. While Chinese scholars concentrate more on studying theories and cases, including the clustering theory of CCIs, the competitiveness theories, and comparative studies between developed countries and China, among which most of the studies are qualitative analysis. Secondly, foreign scholars attach much more emphasis on the industrial structure and economic value held in American CCIs. In contrast, Chinese scholars are inclined to study the history and developmental experience from previous studies on the

U. S. CCIs.

Both of them have certain limitations. The limitation of foreign studies is that they pay little attention on the CCIs of developing countries and qualitative studies are not well-presented. Correspondingly, Chinese scholars turn their attention on studying developed countries' CCIs in order to search relevant experience for China. These studies are often lack of quantitative studies. Hence, a systematic study on main countries' CCIs is necessary. The author aims to combine both qualitative analysis and quantitative analysis in this thesis. With the support of previous theories and the application of statistical method, the comprehensive analysis of the U. S. CCIs is conducted in this thesis.

## **1.3** **Research methodology**

This paper firstly use qualitative analysis to classify the three most commonly used terms, namely the" creative economy"，“cultural industries", and" creative industries", in order to establish a deeper understanding of the creative economy– what it comprises, how it

Functions, and its potentialities for sustainable human development. Then it covers literature reviews on CCIs, defines what is cultural economy and the sectors included in cultural industries. Then competitiveness theory is introduced as theory foundation for the quantitative analysis. The most important method that used in the quantitative study is factor analysis–principal component analysis (PCA). PCA is a way of measuring and calculating observed variables, it evaluates the variables which are the most correlated and relevant to the research objectives. It is a simple but effective method in exploratory data for making predictive models. The factors that affect the American CCIs are demonstrated by the result scores. With the purpose to find out reasons leading to the success of the U. S. CCIs, 26 countries' competitiveness of their CCIs is compared and contrast. As a result, conclusions can be made by the comparison and analysis of 26 countries' CCIs.

## **1.4** **Research framework**

Research background, significance and research methodology

Literature review abroad and in China

Definition and terminology

Reviews on creative economy and cultural economy

Reviews on creative industries and cultural industries

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Classification of CCIs | |  | | Competitiveness theory | |
|  |  |  |  |
|  | | |  | | |

Overview of the U.S. CCIs

Quantitative analysis on 26 countries’ CCIs

Conclusions and suggestions

#### **Chapter Two Literature Review**

Cultural industries are one of the sectors that are fast-growing and newly-developing in the global economy. CCIs are valued as important industries not only in developed economies but also among many emerging economies especially in China. With the development of research and studies by theorists, the policy support by governments, as well as the daily expanding cultural consumption, cultural industries have become one of the most critical economic sectors for countries and regions with dynamic impetus. Theories have been created and demonstrated by scholars over decades.

## **2.1** **Research abroad**

Discussion of the cultural industries firstly started from representatives of the Frankfurt school Theodor Adorno and his colleague Max Horkheimer in 1947, they firstly gave the term of cultural industries in their essay *The Culture Industry: Enlightenment as Mass Deception* (Adorno, & Horkheimer, 1947; Marcuse, 1991). Adorno's later works on film, radio, newspapers and music all reaffirmed the opinion that monopoly capitalism had become thoroughly absorbed by the economy (Huyssen, 1986; Adorno 1991). With the growth of capital economy, culture industry gradually involved into the economy and turned into a new individual industry. Adorno equates the American cultural industry with European Fascism ((Huyssen, 1986, p. 23) that the modern worker has been totally integrated into the industrial machine he now has his leisure time and his interiority controlled by modern industrial techniques. The Fordist factory system moved into the realm of culture used as a powerful ideological tool. The techniques of the culture industry–the uses of predictable effects, the controlled manipulation of audience response, and the endlessly deferred gratification of stimulated desire–which had been developed under the pressure of

Commodification, were now used by monopoly capitalism itself (Huyssen, 1986; Adorno, 1991). Although Adorno's idea about the cultural industries is negative, it still caused attention and became an important basis for future study. Later, scholars in Fordist school considered that the original capital collection were seen as the foundation for the development of cultural industries, most of the producers aimed to maximize their profits in order to satisfy customers' needs and wants. This view illustrates the positive side of the cultural industries and it has considered the market and consumers' needs for the first time, which is different from Adorno's idea. Granham (1987, p. 25) argued that this" materialism" tended to be both too much and not enough. To materialist in the sense that culture was seen to be completely reducible to the needs of" capital" or the" ruling class"; not materialist enough in the sense that, once stated, there was no examination of how this culture got produces, by whom and under what conditions. The central contention of the political economy school was that under capitalism culture was increasingly produced as a commodity, and thus subject to the logic and the contradictions of this system of production (O' Connor, 2010, p. 23).

In 1990s, the concept of creative industries became a policy discourse announced by the UK's Department of Culture, Media and Sport (DCMS), this concept has been known as the first definition of the cultural industries in 1997 (Smith, 1998, p. 16). This marked a new status for cultural policy and the cultural industries in particular. Regarding to the UK description, the creative industries are those referring to" creative and talent, with potential for wealth and job creation through exploitation of their intellectual property" (DCMS, 2001,

P. 22). Howkin's (2001, p. 15) notion of the" creative economy", which included all those activities covered by intellectual property in some form, such as design, trademark, copyright and patents. The British government established its creative industries as a central sector of the country's" postindustrial" economy, accounting five percent of its total national income in 1998 with the employment of 1.4 million people and growing at double rate of the British economy. Later on, variations in national and regional definitions on the creative industries began to emerge. Europe tends to adopt the" concentric circles" model, where arts-related

Activities are considered as being in the" core" creative industries, while sectors like advertising, architecture, and design are seen as only being partially creative (Throsby, 2001; KEA, 2006). After Britain has succeeded in its cultural policy, many countries began to take up the creative industries policy discourse and followed up in developing their own cultural industries. Countries like Singapore, Korea quickly developed detailed analysis of its creative industries sectors that were strongly influenced by the UK model. The concept also gained policy purchase in Taiwan, Korea, and in the hybrid form of" cultural creative industries" in

China (Kong, Gibson, Khoo, & Semple, 2006; Keane, 2007). In the beginning of the 20th

Century, the European Union (EU) identified the cultural sectors as one of the largest sectors that created employment growth in labor markets (KEA, 2006, p. 39). Creative industries was also taken up by governments in Australia and New Zealand, although in the Australian case it was state governments, such as the Queensland government, that were the more enthusiastic proponents of creative industries policies (Craik, 2007, pp. 278-291). In United States, arts and entertainment industries have became city landmarks, which stimulated the economy through cultural creativity (Wyszomirski, 2008, p. 253). As for a global scale, the UNCTAD has become an enthusiast in proposing the creative industries as a new engine of growth in many developing countries (UNCTAD, 2008, pp. 67-68), while the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has significantly upgraded its statistical frameworks to incorporate the size, scope and significance of cultural production in the world economy (UNESCO, 2007, p. 21).

As the countries pay more attention on cultural industries, academic studies and research on cultural industries are also undertaking fast development and assisting governments to take supporting policies. As early as the 20th century, the cultural industries were involved into the industrialized production such as film and television sectors, while, music, fashion, arts and crafts were all combining closely with business sectors. In the late of the 20th century, protection of the intellectual property, digital technologies began to change the way of production and delivery (Hesmondhalgh, 2007, p. 567). According to authors (Cunningham, 2002; Hesmondhalgh, 2002; Markusen et al., 2008), the creative economy

Has thoroughly covered a broader sectors of industries, including the production of analytic, technical or scientific knowledge, which are not considered a purely cultural activities like science, computing, education and engineering. The 2000s have seen growing consensus reaching among policymakers about the definition of creative industries and about the decisions on what sectors should or should not be included, as well as debates about what should be considered to be" core" creative or cultural industries keep going on as the cultural industries develops. UNESCO has made a comparison on the cultural statistics framework by choosing ten countries and found a consensus existing in the cultural modeling, which was consisting of publishing and literature; performing arts; music; film, video and photography; broadcasting; visual arts and crafts; advertising; design; museums, galleries, and libraries; interactive media and games (UNESCO, 2007, p. 45).

Regarding to the new technologies and the future trend of the cultural industries, scholars primarily focus on creativity and intellectual property protection. Cultural industries connect the inputs such as creativity and the outputs like aesthetic or intangible experience as a distinctive feature in the market. Galloway and Dunlop (2006, p.28) refer that any business or activity based on creativity can be considered as a creative industry. While, several famous authors (Higgs, Cunningham, & Bakhshi, 2008) point out that measurable data and statistics work are more scientific in directing governments than theories and concepts. As the growing influence of internet and digital media, scholars start to focus on the significance of technologies on CCIs. Daniel Bell thinks that the information society has only limited influence, with most accounts of the creative industries being considerably more circumspect about proclaiming a postindustrial utopia for the creative workforce, and there has been considerable recognition of the question of precarious labor that often underpin contract employment and flexible working arrangements (Deuze, 2006; Cunningham, 2008). While other scholars like Hesmondhalgh, Miller and Kellner all hold positive view, they think the technologies should be maximized and combined with CCIs. Overall, foreign studies on CCIs have provided much reference for governments and organizations on developing their cultural industries.

## **2.2** **Research in China**

CCIs are rapidly developing not only in western countries like America, but also in developing countries especially China. As mentioned above, the cultural industries are viewed differently all over the world: they are initially called the creative industries in Britain, they are called content industries in major Asian countries like Japan and South Korea, they are known as cultural and creative industries in regions and areas such as Taiwan and Hong Kong, just as they are in Beijing, while they are known simply as creative industries in Shanghai.

As the above discussion, the term" cultural industries" traces its back to earlier work in the Frankfurt School in the 1930s and 1940s. During 1970s, western authors involved in researching the cultural industry across different industries and regions and expanded their research from western to eastern areas. After 1980s, with the adoption of Marxism, Chinese academic scholars started researching on the Frankfurt theory on cultural economies and cultural industries, which has became the foundation of domestic research of cultural industries. Although China is a nation with long history and resourceful culture, Chinese CCIs have a shorter history of development and cannot compete with other western countries yet. In recent years, Chinese scholars have been trying to find out what is the most appropriate model for Chinese CCIs from many aspects, including from the view of strategy, international trade and business, clustering theory and regional development, policy-making, investment and financial model, cities' competitiveness, intellectual property right, and comparison between Chinese and Western culture. Today, the cultural industries have become one of the major economic talking points of China's social and economic development, and cultural consumption has started to become a feature that permeates all of people's lives on a daily basis. In 2012, the increase in the value of the cultural industries in Guangdong,

Shandong, Jiangsu and Beijing reached as high as￥100 billion. Hence, the CCIs have

Become a major component of economic development and a driving force of Chinese economy.

Chang Lingchong is one of the Chinese scholars that firstly mentioned the definition of

CCIs as the industry which produces cultural goods and provides cultural services. For decades, cultural industries have been upgraded up to national strategies in developed countries like America, UK, Japan and Korea. Compared with them, China's industrial scale just newly begins. Since the start of reform and opening up in 1978, the CPC Central Committee and the State Council have worked to implement the three national strategies of" economic wealth"，“scientific and technological innovation" and" culture and creativity". With rapid development, China has grown ever stronger as a nation, which provides a powerful foundation for Chinese culture to go abroad and compete with western cultures.

Zhang Jingcheng (2006, p.92) quoted in by collecting related theories and promoting policies on CCIs. He describes that the importance of CCIs in both current and future situation in details by combining with theories and practical cases. Professor of Shanghai Academy of Social Science, Li Wuwei (2006, p.5) has been devoting in the CCIs with an view of industrial economics, he holds the view that CCIs could not only facilitate the transformation of economic growth model but also generate value chains in cultural related industries. In the year of 2009, Jin Yuanpu (2010, p. 219) published a book named *Culturally creative industries' Introduction*, in which he introduced and analyzed all the current theories, history, structures and priorities of CCIs in all aspects with a macroscopic perspective.

As technologies advancing, CCIs related industries rapidly coming up, terms like content industries, cultural tourism, copyright industries have been extended and developed, largely expanding the research area of cultural industries and helping scholars learn more information about the CCIs. Both foreign and domestic scholars realize that CCIs must be considered with economic development and social environment, then the negative meaning of cultural industries given by Adorno begins to show new positive meaning.

To conclude, most of the previous studies on CCIs by Chinese scholars are committing to discussing experience and features of the American CCIs, single sub-sectors like film industry and music industry are mostly discussed, as well as comparative studies between China and U. S. These studies are either focusing on theories of the CCIs or are lack of quantitative analysis to some extent. Recently, quantitative studies are growing as Chinese

Scholars have realized the importance of quantitative studies and started to focus on economic data and statistics. While foreign studies concentrate on the economic significance and industrial development in states or cities. With the combination of quantitative method by foreign scholars and qualitative method by Chinese scholars, the rankings of different countries' CCIs and the reasons of the industrial competitiveness can be concluded in this thesis.

#### **Chapter Three Definition and Terminology**

Since the initial term of creative industries came up in UK in the late of 1990s to present, there has been lots of controversy on definitions, models, disagreements of what industries are included or excluded. Organizations like UNESCO and UNCTAD are continually generating data on the content, size, scope, and significance of creative industries on a global scale, which leaves us resourceful previous empirical foundation for studying CCIs.

## **3.1** **Creative economy and cultural economy**

The terms" cultural economy" and" creative economy" have been talking about as important and growing sectors of the global economy for around fifteen years. These two terms originally refer to create things that are beautiful, to communicate cultural value through arts, music and performance for people who are willing to pay for this experience.

When cultural economy achieved fast development in the mid-1990s, there was an expansion of the scope of cultural economy into the scope of economic geography. Scholars like Scott. A., Storper M., Christopherson. S., and others in work are pioneering into the cultural economy and seeking ways to integrate cultural into economic scope (Christopherson & Storperm 1986; Crewe & Forster, 1993; Scott, 1996). They emphasize on the commodification of culture, new cultural forms and changes in the organization of capitalism. According to Scott, A. (1999, p. 807):" Cultural economy consists of all the sectors in modern capital economy that has an aim to satisfy consumer's demands for entertainment, amusement, social display and etc". The industries' outputs have utilitarian purpose such as creating symbolic value to consumers through film, music, fashion, jewelry and craft (Scott, 1999, p. 807; Lash & Urry, 1994). Cultural economy became one of the major subjects of academic research, later it is seen as a fresh new, major component of economies,

Manifesting in particular sectors that known as" cultural industries" and later the so-called" creative industries" (Scott, A., 2000, p. 321). Scott describes" cultural industries" as" the cultural economy comprises all those sectors in modern capitalism that cater to consumer demands for amusement, ornamentation, self-affirmation, social display and so on" (Scott, A. 1999, p. 812). Today' economies contain a major cultural-economy component that is apparent in specific sectors that have their own logics and tendencies, such as clustering and reliance on untraded interdependencies and tacit knowledge (UNESCO, 2009, p. 53).

The term" creative economy" was widely-accepted since 2001 mentioned by British writer and media manager John Howkins. He applied this concept to 15 industries ranging from arts to science and technology. For Howkins," creativity is not new and neither is economics, but what is new is the nature and the extent of the relationship between them and how they combine to create extraordinary value and wealth" (Howkins, 2001). According to his idea, there are two kinds of creativity: the kind that relates to people's fulfillment as individuals and the kind that generates a product. The first one is a universal characteristic of humanity and is found in all societies and cultures. The second is stronger in industrial societies, which put a higher value on novelty, on science and technological innovation, and on intellectual property rights (IPRs).

In the 21st century, UNCTAD considers the cultural economy as the combination of

“Cultural and traditional heritage, artistic expression, music, literature, visual and performing arts" (UNCTAD, 2008, pp. 10-14). A broader group is considered by Hesmondhalgh (2002, Markusen, 2008, 27), to whom cultural industries are sectors including" television, radio, the cinema, newspaper, magazine and book publishing, music recording and publishing industries, advertising and the performing arts", from his understanding, he considers" cars, software, consumer electronics, cultural industry hardware, and sports" as" borderline cases". In turn, Markusen et al. (2008) does not take into account the" border arenas" of" religion, sports, recreation and entertainment, education, information, supplier sectors and distributors" in the conceptualization of cultural industries. Markusen mentioned that" Our intention is not to reach a final consensus about concepts, but to understand its evolution”

（2008）.

Although consensus have not reached among scholars yet, most of them agree that these two terms have little difference except that the creative economy covers a slightly wider range including science and technology. Any cultural activity and process that is involved with creativity in domains would be understood as" cultural" or" creative".

## **3.2** **Cultural industries and creative industries**

Despite all the efforts to conceptualize cultural industries and creative industries, their boundaries remain rather unclear and involve lots of debate (Markusen et al., 2008). Cultural economist David Throsby (Throsby, D. 2008, p. 229) has observed that the distinctions made between cultural and creative industries arise from a mix of inherent definitional difficulties in delineating" culture" and" creativity". Similarly, according to authors (Cunningham, 2002; Hesmondhalgh, 2002; Markusen, 2008), there is an distinction between cultural industries and creative industries, the creative economy has a broader sector of industries than cultural economy, including those purely cultural activities like science, engineering, computing and education which are excluded by cultural industries. Another major distinction mentioned by Galloway and Dunlop (2007) is the production of culture and meaning. Cultural economist David Throsby (2008) has noticed the distinction between cultural and creative industries come from the definitional difficulties in differentiating" culture" and" creativity" (Throsby 2008, p. 229). Definitions of cultural industry and creative industry are discussed below.

### **3.2.1** **Definition of cultural industries**

As mentioned before, the term" cultural industry" showed up during the period of the post-war as a critique of mass entertainment by the Frankfurt school members led by its representative Theodor Adorno and his colleague Max Horkheimer, followed by writers such as Herbert Marcuse. They held the idea that culture industry was a negative concept which represented the capitalism and against modern cultural life. When the neo-Marxist philosophy came up in the early 20th century, the cultural production was still considered as" class rule”

And a" capitalist lifestyle" (Edgar, 2008, p. 83). However, this kind of judgment began to shift away from the pessimistic meaning of" culture industry" since 1970s. Cultural industries were featured with cultural production, distribution worked in various industries, and they increased democracy for the public atmosphere (Flew. T. & Cunningham, 2010). In 1980s, Nicholas Granham advocated that" most of the people have their cultural needs and aspiration, for better or worse, supplied by market as goods and services" (Garnham, 1987, p. 25).

Up to now, studies of cultural industries remain to be further continued. For instance, the UNESCO (2005) regards cultural industries as" combine the creation, production and commercialization of contents which are intangible and culture in nature. These contents are protected by copyright and take the form of cultural goods and services". For UNESCO, promoting cultural diversity and ensuring democratic access to culture are the two basic features of cultural industries, which give the cultural industries unique features. Overall, the traditional notion of the" cultural sector" has been largely expanded and it includes any creative activity that brings value to people and society.

### **3.2.2** **Definition of creative industries**

The definition of creative industries varies among countries. It is a recent developed term emerged in Austria in 1994 in *The Report of Creative Nation*. It expanded in 1997 by DCMS which set it into a policy discourse. In 1998, the DCMS firstly offered a comprehensive definition of the creative industries as" those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS 2001, p. 4). It includes the following sectors: advertising, architecture, the art and antiques market, crafts, design, designer fashion, film, music, interactive leisure software, publishing, the performing arts software and television and radio (DCMS, 1998, p.13).

Nowadays, the scope of creative industries have been largely explored. According to Howkins's (2001) definition, the creative industry is viewed as an economical sector which

Employs creativity to generate wealth and employment, among which most important is that all the production should be protected by intellectual copyright. His definition expands the industry and brings research and development activities into combing science and technology with intangible knowledge, arts and culture. Therefore, it is considered that his idea has similarities with the American copyright industry (Luo, Bing & Wen, Simei, 2006).

Chinese scholars have built their definition of the CCIs based on British government's definition and John Howkin's definition. According to Li Shizhong (2008) CCIs are those industries that utilize technology and arts to create and reconstruct cultural resources into high-value added products and services with esthetics in order to satisfy human spiritual and sensual needs. Zhang Jingcheng (2006) quotes that CCIs is a newly-emerging industries that are operated on the basis of post-industrialization and involved with both creative activities and traditional manufacturing industries. Jin Yuanpu (2010) furthers that CCIs are one of those industries that promote the development of the green industries and upgrade the transformation of Chinese traditional manufacturing industries. Moreover, with the involvement of highly-advanced technologies, CCIs even outperform other traditional industries with much stronger innovative advantage. Generally, Chinese scholars have put great emphasis on the importance of CCIs from the perspective of industrial reconstruction and transformation, and focused on the interrelationship among relevant industries.

With substantial creative assets and rich cultural resources, CCIs not only enable countries and regions to tell their own stories, to project their own unique cultural identities to themselves and to the world, but also provide themselves with a source of economic growth, job creation and increasing participation in the global economy.

## **3.3** **Classification of CCIs**

As above discussion, CCIs are vastly ranging in scope, they interact with sectors ranging from activities rooted in traditional knowledge and cultural heritage such as arts to more technology and service-oriented such as audiovisuals and digital media. Many different models have been presented as a means of giving a systematic understanding of the structural

Features of the CCIs.

One of the most popular approach in classification is the approach is the UNCTAD approach. It relies on the idea of" creativity" from activities having strong artistic components to" any economy activity that produces symbolic products with a heavy reliance on intellectual property and for as wide a market as possible" (UNCTAD, 2004). UNCTAD layouts a distinction between" upstream activities" (traditional activities such as arts) and" downstream activities" (more business involved such as advertising), which as a result divides the creative industries into four types and nine subgroups. The UNCTAD approach is presented in Figure3.1.



**Cultural sites**

**Archeological sites, museums, libraries, exhibitions**

**Traditional cultural expressions**

**Arts and crafts, festivals and**

**Heritage**

**Visual arts**

**Paintings, sculptures, photography and antiques**

**Performing arts**

**Live music, theater, dance, opera, circus,**

**Arts**

**Publishing and**

**printed media**

**Books, press and other pubilications**

**Creative**

**Industries**

**Audiovisuals**

**Films, television, radio, broadcasting**

**Media**

**Design**

**Interior, graphic, fashion, jewellery and toys**

**Creative services**

**advertising, R & D, cultural recreational, architecture**

**New Media**

**Software, videogames, digitized creative content**

**Functional**

**creations**

**Figure** **3.1: UNCTAD classification of creative industries**

Source: United Nations Committee on Trade, Aid, and Development, *Creative Economy Report 2008.* Geneva.

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Figure 3.1 shows how these principles link up to sectors and categories that constitute

The creative industries worldwide. The work of UNCTAD on creative industries and the creative economy develops a sectoral taxonomy of the creative industries between the arts, media, heritage, and" functional creations" (or more service-oriented sectors), around the

Following broad definition of the creative industries (UNCTAD, 2008, p. 13).

Another widely spread classification approach is the concentric circles model initiated by David Throsby. As presented in Figure 3.2, the circles represent those industries that focus mainly or particularly on the commercialization of pure expressive value of the CCIs, such as music, television, radio, publishing, computer games and film. The smallest circle in the model produces the copyrightable works of original value such as performing arts, literature, music, and visual arts. Outside the core creative arts, there are other core creative industries, which include film, museums, galleries, libraries and photography. In the third layer circle, the creative industries are expanded to sectors including advertising, architecture, design and fashion. The largest circle is the cultural related industries, composing of heritage services, publishing and print media, television and radio, sound recording, video and computer games. Overall, these circles are expanding from inside to outside according to their strength of creation and origination.

**Figure** **3.2: Concentric circles model of the cultural industries**



**Core creative arts**

Literature, music,

arts

**Other core cultural industries**

Museums, galleries,

film, libraries

**Related industries**

Advertising, fashion

**Core Creative Arts**

**Other Core Creative Industries**

**Wider Cultural**

**Industries**

**Related Industries**

**Wider cultural industries**

Heritage services publishing and print media, television, radio Sound recording

Video and computer

Source: The concentric circles model of the cultural industries by David Throsby, *Cultural Trend*, Vol. *17*, Issue 3, 2008

Except the UNCTAD approach and the concentric circles model, there are six models

Of CCIs discussed here. Each of the model has its own standard in classifying CCIs and they are presented by scholars and organizations of different regions. The six models of CCIs classification include DCMS model promoted by UK Department for Culture, Media and Sport, symbolic texts model by David Hesmondhalgh, concentric circles model by David Throsby, WIPO copyright model by World Intellectual Property Organization, UIS trade-related model by UNESCO and Americans for the arts model.

**Table** **3.1: Six models of the CCIs**

| Model | Source |
| --- | --- |
| 1.DCMS model | （UK Department of Culture, Media and Sport, The Creative Industries Mapping Document 2001, London: DCMS, 2001）.  Based on activities requiring creativity, skill and talent, with potential for wealth and job creation through exploitation of their intellectual  property. |
| 2.Symbolic texts model | （David Hesmondhalgh, The Cultural Industries, London: Sage, 2002）.  Based on industries concerned with industrial production and  Dissemination of symbolic texts. |
| 3.Concentric circles model | （David Throsby, Economics and Culture, Cambridge: Cambridge University Press, 2001）.  Based on origin and diffusion of creative ideas in sound, text and  Image from core creative arts. |
| 4.WIPO copyright model | （World Intellectual Property Organization, Guide on Surveying the Economic Contribution of the Copyright-based Industries, Geneva: WIPO, 2003）.  Based on industries involved directly or indirectly in the creation, manufacture, production, broadcast and distribution of copyrighted  works. |
| 5.UIS trade-related model | （UNESCO Institute for Statistics, International Flows of Selected Cultural Goods and Services 1994–2003: Defining and Capturing the Flows of Global Cultural Trade, Montreal: UIS, 2005）.  Based on cultural goods and services entering international trade. |
| 6.Americans for the Arts model | （Americans for the Arts, Creative Industries 2005: The Congressional Report, Washington DC: Americans for the Arts, 2005）.  Based on businesses involved with the production or distribution of  The arts ("arts-centric businesses"). |

Source: Models of the creative industries by Jason Potts. and Stuart Cunningham,

*International Journal of Cultural Polic*y, Vol. *14*, Issue 3, 2008

Table 3.1 lists an overview of these six models, highlighting the different classification systems that imply for the creative economy. Each model has a particular template ranging from the" core" to the" peripheral" sectors. With different research purpose and method, each of the model has its own distinctive feature in defining the" creative sector" which were mentioned earlier.

1. UK DCMS model. This model was initiated in the late 1990s in the United Kingdom. In order to revive the British economy, the British government developed the creative industries as an economy driver for the nation's creativity and innovation. According to DCMS," creative industries" refer to as those requiring" creativity, skill and talent, with potential for wealth and job creation through the exploitation of their intellectual property" (DCMS, 2001). There is no mention of the word culture in the British definition, even though there is undeniable cultural content in the output of most of the 13 industries included under the creative industry classification. In most continental European countries, on the other hand, there is an inclination towards greater stress on the cultural content of creative production (Throsby, 2008, p. 221).

2. Symbolic texts model. This model is a typical approach to the cultural industries arising from the critical-cultural-studies tradition as it exists in Europe and especially the United Kingdom (Hesmondhalgh, 2002, p.324). Instead of focusing on the" high" or" serious" arts which are the foundation of social and political establishment, this model emphasizes on mass popular culture. According to Hesmondhalgh, all the sub-sectors are market-oriented and consumer-oriented, such as films, broadcasting and the press, they are means of conveying the industrial production and services.

3. Concentric circle model. As the above discussion, this model was invented by Throsby. The model is formed with a series of layer of circles going from inside to the outside layers or circles according to the strength of their originality and creativity. It is recent found in the study prepared of the European Commission (KEA European Affairs, 2006, p.47).

4. WIPO copyright model. This model bases on industries involving directly or

Indirectly in the creation, manufacture, production, broadcast and distribution of copyrighted works (WIPO, 2003). WIPO sees the creative sectors as built around the copyright industries. It focuses on the copyright and intellectual property which are essential for cultural goods and services, which means the copyright model classifies the cultural industries according to their significance of copyright. It divides the copyright industries into three types, core copyright industries, interdependent copyright industries and partial industries. While the UNCTAD looks particularly to trade as a driver of the creative economy, with particular reference to the potential for growth in the creative sectors of developing countries (UNCTAD, 2008).

5. UNESCO Institute for Statistics Model. UNESCO has been consistently occupying in the reports providing data analysis and transformation of the CCIs for years. This model illustrates the connection between culture and economic contribution of CCIs in the whole economy. It has listed all the core copyright industries domain in every aspects ranging from the least economy interconnected sectors such as museums, galleries, libraries, performing arts, design, publishing to the highly economy correlated fields such as advertising, film and video.

6. Americans for the arts model. Based on businesses involved with the production or distribution of the arts (arts-centric businesses). This model is one of the simplest one in classifying the CCIs and widely used in north America. It only includes those popular cultural sectors that close to mass entertainment such as advertising, museums, zoos, and television.

Notwithstanding the diversity of the conceptualizations of the creative economy, it is remarkable that all the various definitions lead to much the same collection of cultural and creative industries. thus, regardless of their location or their origins, when most analysts or policy-makers speak of the CCIs, they mean all or most of the following specific industries: the creative arts; cultural heritage; audiovisual media (film, music, television, video and computer games); print media and publishing; and a number of smaller industries relevant to these activities such as music instrument making, retail bookselling, commercial art dealers, etc. In many cases the list of creative industries also extends to containing design, advertising, fashion and architecture. The six main classification models of CCIs are showed in Table 3.2.

Table 3.2 Classification systems of the CCIs

| 1. UK DCMS Model | 2. Symbolic Texts Model | 3.Concentric Circle Model |
| --- | --- | --- |
| Advertising Architecture  Art and antiques market Crafts  Design Fashion  Film and video Music Performing arts Publishing Software  Television and radio  Video and computer games | Core cultural industries  Advertising Film Internet Music Publishing  Television and radio  Video and computer games Peripheral cultural industries  Creative arts Borderline cultural industries  Consumer electronics Fashion  Software Sport | Core creative arts  Literature Music Performing arts Visual arts  Other core cultural industries  Film  Museums and libraries Wider cultural industries Heritage services Publishing  Sound recording Television and radio  Video and computer games Related industries Advertising  Architecture  Design fashion |

|  |  |  |
| --- | --- | --- |
| **4. WIPO Copyright**  **Industries** | **5. UIS trade-related model** | **6. Americans for the Arts**  **Model** |
| **Core copyright industries**  Advertising Collecting societies Film and video Music  Performing arts Publishing Software  Television and radio Visual and graphic art  **Interdependent copyright industries**  Blank recording material Consumer electronics Musical instruments  Paper | **Industries in core cultural domains**  Museums, galleries, libraries Performing arts  Festivals  Visual arts, crafts Design Publishing Television, radio Film and video Photography Interactive media  Industries in expanded cultural domains  Musical instruments  Sound equipment | Advertising Architecture  Arts schools and services Design  Film Museums, zoos Music Performing arts Publishing  Television and radio Visual arts |

|  |  |  |
| --- | --- | --- |
| **4. WIPO Copyright**  **Industries** | **4. WIPO Copyright**  **Industries** | **6. Americans for the Arts**  **Model** |
| Photographers  **Partial copyright industries**  Architecture Clothing, footwear Design  Fashion  Household goods Toys | Architecture Advertising Printing equipment Software  Audio-visual hardware |  |

Source: Four models of the creative industries by Jason Potts. and Stuart Cunningham,

*International Journal of Cultural Polic*y, Vol. *14*, Issue 3, 2008

Overall, these sectors are similarly described as creative or cultural in different parts of the world. Different countries or organization set their own objectives and workable frameworks to deal with the scope of the CCIs. There is no" right" or" wrong" model of the creative industries, they are just simply different ways of interpreting the structural characteristics of creative production. Studying these approaches and models is beneficial for countries and regions to understand their own industrial characteristics and improve their CCIs.

## **3.4** **Competitiveness theory**

Competitiveness theory has been seen as an important factor in estimating industries' development, studying and classifying the competitiveness theory will provide us thorough understanding of how the United States succeeds in maintaining sustainable competitiveness of its CCIs. Among these competitiveness theories, Michael Porter's diamond model is the one used in this thesis, it explains how a country or area has the competitive advantage in the growing competition while other do not.

### **3.4.1** **Definition of the international competitiveness**

Debates about competitiveness can remain inconclusive if they are not based on a shared definition of competitiveness. The definition of a conceptual term such as

Competitiveness is never true or false in an absolute sense but its appropriateness can be judged for a specific research or policy question.

Since the 1980s, international competitiveness has become a critical focus for scholars. WEF (World Economic Forum) and IMD (International Institute for Management) were the earliest institutes that conducted research on international competitiveness. Since 2005, the WEF has based its competitiveness analysis on the Global Competitiveness Index (GCI), a highly comprehensive index, which captures the microeconomic and macroeconomic foundations of national competitiveness. WEF defined competitiveness as" the set of institutions, policies, and factors that determine the level of productivity of a country" in the *Global Competitiveness Report of 1997*. In the same year of 1997, IMD defined competitiveness as a country's ability to create more wealth than its competitors in the international market. Both of these two institutes created evaluation indexes to measure a nation's competitiveness. These indexes are relevant to market openness, government management, financial situation, infrastructure, enterprises management, science and technology, and citizen quality. Each year, the global competitiveness reports released by these two institutions attract lots of attention, and their studies have become important reference for all the countries and governments.

In 1990s, many countries and regions in the world were racing to expand their international competitiveness. Among many famous scholars, Harvard Business School professor Michael Porter, also the president of the American Industrial Competitiveness Committee who is well-known with his understanding of international competitiveness. In his book *The Competitive Advantage of Nations*, he mentions that the competitiveness of a country is created and maintained by various factors like economic structure, value, culture, policies and systems. Governments' function in increasing their international competitiveness has been upgraded, which largely stimulated the industrial development.

The diamond model introduced by Porter has influenced the studies on competitiveness. In his point of view, national competitive advantage depends on the industrial competitive advantage, and the industrial competitive advantage depends on the enterprise

Competitiveness (Porter, 1990, p. 11). Porter defines the competitiveness of a location as the productivity that companies located there can achieve. According to Porter, a country's economic objective is to provide people with better living standard, which means the country should capitalize its resources like labors and capitals to increase its productivity, which is determined by the yield of per unit of labor and capital.

He uses this definition of competitiveness to understand the drivers of sustainable economic prosperity at a given location. He also mentions that international competitiveness creates a favorable business environment for enterprises. The most essential part of Porter's theory is that the international competitiveness of any industry cluster is shaped by four characteristics of the domestic market: demand conditions, factor endowments, firm rivalry, and supporting industries (1990).

According to the definition from an industrial report of The U. S. Industrial Competitiveness Committee, international competitiveness refers to the ability to provide good products, good services in the free market and improve people's living standards at the same time. From the perspective of macro view, trade volume, people's standards of living, productivity and investment are the determinants of international competitiveness, hence, international competitiveness equals to the nation's competitiveness in the global market.

In addition, UNCTAD considers that competitiveness can be referred to the competitiveness of the enterprises or the state. Enterprise competitiveness is mainly about the enterprises' ability to sustain its advantage and extend their market share. While at the national level, it requires a broader consideration such as productivity, technology and innovation, imports and exports, political environment and etc.

### **3.4.2** **Michael Porter**’**s competitiveness theory**

Michael Porter introduced the conceptual framework of national competitiveness in his book *The Competitive Advantage of Nations*, which has been influential for decades. His approach to competitive advantage examines both a nation's endowments and also that of companies within the nation.

Porter edits that" competitiveness is deeply rooted in country's macroeconomic fundamentals, manifested in the sophistication of its companies and the quality of its macroeconomic business environment" (Porter, 1990). Porter emphasized on the national determinants of international competitiveness that the measurement of a country's competitiveness or productivity largely depends on the macroeconomic stability and political environment. One of the major question answered in his work is that" why does a country become the home base for international competitors in an industry while other countries do not(Porter, 1990). Withtheaimtoanswerthisquestion, Porterhasresearchedmanydifferentindustriesandfoundouttheanswerwhyanationcanestablishitscompetitiveadvantageinaspecificfield. Healsomeasuresinternationalsuccessasanindustry'scapabilitytoexportandacquireforeigndirectinvestment.

According to Porter, the" diamond of advantage" model (1990) includes four determinants of industrial competitiveness or national advantage such as domestic demand conditions, factor conditions, related and supporting industries and industry strategy structure. Lehtinen, Poikela and Pognracz have confirmed that the four determinants of the Porter's diamond model are the foundation for later studies on industrial clustering economy (Tan, 2006, p. 839). With the consideration of these four major determinants and two environmental elements, a country or an area's specific industrial competitiveness can be measured and evaluated in current and future development. An industry's international competitiveness may then result from responding effectively to, and building on, the determining factors at any of the various geographic levels. Hence, it is the successful combination by a particular firm or industry of particular determinants at the relevant geographic levels, that leads to international competitiveness, not an exclusive or primary focus on national or local determinants.

As shown in Figure 3.3, there are four main factors and two elements in Porter's diamond model of nation competitive advantage, including factors conditions, related and supporting industries, demand conditions, firm strategy, structure and rivalry in this model, as

Well as two elements which are opportunities and government. These factors and elements are either directly or indirectly affecting an industrial competitiveness (see Figure 3.3).

**Figure** **3.3: Porter’s diamond model of national competitive advantage**



Opportunities

Firm strategy,

structure, and rivalry

Factor conditions

Demand

conditions

Government

Related and supporting industries

Source: Michael Porter, *The Competitive Advantage of Nations*

### **3.4.3** **Determinants of Porter**’**s diamond model**

Michael Porter's diamond model to competitive advantage examines both a nation's endowments and also that of companies within the nation. Porter argues that national advantage is due to technology clustering, where comparable technology industries locate together for mutual advantage. In order to discover the sustainability of the American CCIs, it is necessary to understand the factors that contribute to a country's competitiveness. These factors range from endowed factors such as infrastructure and landmass to economic factors such as foreign reserves. In accordance with Michael Porter's diamond of competitive advantage, the attributes of a nation have been sectioned into four main factors: condition factors; demand; related industries; strategy.

Factor conditions refer to domestic country production factors including human labor, knowledge, material like land, capital resources and infrastructure (Porter, 1990). To be

Specific, these factors are numbers of skilled workforce, availability of raw materials, quality of academic research and development, capital resources, legal system and regulatory infrastructure such as transportation, communication and school systems, water and power lines and government policies and program. Porter suggests that each country or region has certain factor conditions and competitive advantages. According to Porter, it is considered that the extent of factor conditions in a country or region would lead to business opportunity recognition in certain industries, which consequently triggers entrepreneurial mindset due to the speed of knowledge transfer and access to specific resources. In other words, the companies' behavior is guided in the market or industry by the availability of resources in the environment. Therefore, entrepreneurs should maximize their knowledge and social resources like capital or social networks to prepare their mindset and find out market opportunities in specific industry.

Demand conditions refer to the domestic demand for products or services. Porter's model suggests if the local demand for a domestic product or service is greater than foreign markets, then local firms should put more emphasis on developing certain products or services than foreign firms in home market, which would create competitive advantage for the home country. Porter also places emphasis on the role of home demand in providing impetus for industry's upgrading and innovation due to the fact that domestic firms are the most sensitive to the needs of its closest customers. With this regard, domestic firms can transfer the domestic demand into their international expansion so as to compete with international competitors. In light of the available market information, potential entrepreneurs' mindset is fashioned and adapted to the existing market demand and thereby more likely to explore new ideas related with that demand. By focusing on existing market demand knowledgeable entrepreneurs can introduce new products, services, sources of input or advances that lead to increased entrepreneurial behavior. In sum, individuals with information on certain market demands or industries may recognize more entrepreneurial opportunities in these industries and markets than those who have no knowledge and no market shares on these industries.

Related and supporting industries refer to the availability of competitive supplying and supporting industries. When industries coordinate activities and form clusters of supporting industries within the value chain they achieve a competitive advantage (Porter, 1991). It is believed that the strength and competitiveness of related and supporting industries in a region or country initiates the entrepreneurial mindset in recognizing and finding out market opportunities. When local supporting industries are competitive, new entrants continue to grow in both related and supportive industries and later form clusters. Due to the transfer of information flow and transactions between buyers and sellers, firms can better think up with the most cost-effective and innovative products. Industrial clusters or related and supporting industries are critical in technology transfer and innovation (Tan, 2006, p. 842), which also facilitate cooperation, efficiency and flexibility, lower transportation and traffic costs during the producing process (Porter, 1990). The power and strength of the related and supporting industries in a region or country improves both horizontal and vertical connections and interactions within industries (Walzer, Shumway, & Gruidl, 2005), what's more, it stimulates social interaction, information communication and exchange (Saxenian, 1994; Jacobs & De Man, 1996; Rosenfeld, 1996). Social infrastructure inside the value chain of the related and supporting industries helps the transfer of technology and knowledge (Rosenfeld, 1997). Therefore, it is suggested that the access to social infrastructure within the related industries will encourage new ideas and new business cooperation, which will invite experimentation, enhance potential critical thinking, and lead to more business opportunities.

The enterprise structure and operation in various countries influence national competitiveness (Porter, 1990). Companies build their capabilities on the fields or industries in which they are competitive. Dynamic capabilities refer to firm specific processes such as product development, strategy, structure and allow organizations to consistently improve the performance within the firms market position (Molin, 2001). Dynamic capabilities (Teece, Pisano, & Shuen, 1997) mainly emphasize on the creation of firm specific capabilities born with their organizational structure that connect its capabilities to changing circumstances. Firms must consistently improve their capabilities to maintain competitive advantage, they

Will have to respond to challenging conditions found in instable environments by adopting an entrepreneurial behavior (Khandwalla, 1987, p. 45) through dynamic capabilities. However, capabilities are difficult to imitate and acquire because they are a function of organization and technology which are built over a period of time in a path dependent process (Dierickx & Cool, 1989; Reed & De Fillippi, 1990). Based on the dynamic capabilities perspective it is suggested that the more entrepreneurs rely on firm specific capabilities, such as strategy and structure that a firm has developed and perfected over time, the more likely they can discover opportunities for new ventures.

In addition to the above four factors, Porter points out that there are two critical variables that are influential to the industrial competitive advantage, opportunities and government. A stream of research found that the external environment plays a crucial factor in creating opportunities as opportunity recognition is a process influenced by many contextual factors in the external environment (Gaglio & Taub, 1992; Singh, 1998), most importantly the availability of resources (Timmons, 1994) and assorted technologies (Zahra, 2008, p. 245). Based on this reasoning, environmental contexts and technology, consumer economics, social valued and governmental regulations (Stevensen & Gumpert, 1985) and changing trends in the present. In other words, entrepreneurs identify opportunities by using various information about the environment (Busenitz & Barney, 1997). They make a habit of scanning their environments for information that may lead to entrepreneurial opportunities (Stewart, May, & Kalia, 2008). Thus, government can influence entrepreneurs and their competitive advantages through policies and laws implemented in the markets, such as setting the production standards, compensations, subsidies and competition regulations. Although opportunities and government factor are not determinants to the competitive advantages, these two factors can indirectly influence the entrepreneurial and industrial competiveness. To conclude, an industry's international competitiveness is still mainly determined by the four factors, factors conditions, demand conditions, firm strategy, structure, and rivalry, related and supporting industries, the Porter's diamond model of national competitive advantage can be interactive and dynamic.

### **3.4.4** **New Porter**’**s diamond model**

In a recent variant of creative economy thinking, it is considered that CCIs not only drive economic growth through the creation of value, but have also become elements of the innovation system of the entire economy. The creative economy should be seen as" a complex system that derives its" economic value" from the facilitation of economic evolution, which is a system that manufactures attention, complexity, identity and adaptation though the primary resource of creativity (Cunningham, S., Banks, J., & Potts, J. 2008, p. 17). In this view, the CCIs are trailblazers, nurturing societal dispositions and stimulating creativity and innovation.

In the field of international competitiveness studies, Porter's diamond model is so concise and practical that it becomes the classical model in researching international competitiveness. While, as the traditional industries transforming and upgrading, the global competition has been changing in many aspects. CCIs is one of the rapid developing industries and its significance increases day by day. Therefore, with traditional production elements weakening, knowledge innovation, technology innovation are leading and strengthening, innovation becomes the basic characteristic of modern economic development. As CCIs such as film and animation industries emphasize more on innovation and innovation, innovation could be a variable in the new diamond model and a critical element in the whole business operating model. Innovation is recognized as a core factor that of strong influence on knowledge and technology innovation, customers' new demands and requirements, new marketing methods, the changes of industrial production and government policies.

Nowadays, a country or a company's strength and opportunities are highly determined by its innovative ability. It is totally different from the post-production era relying on labor or resource intensive competitiveness. Owing intellectual property right, core technology, and long-term ability in innovation are the sustainable impetus for organizations. The new diamond model of national competitive advantage is characterized with new features: firstly, the quality of human resources is playing critical in international competition, high education and high quality of human resources are of greater significance than the pool of labor force.

Secondly, innovation dominates every move of the entrepreneurs and the emerging industries. The famous economist Joseph A. Schumpeter noticed the importance of innovation as early as in 1912, he pointed out that innovation is the combination of production elements and production conditions that entrepreneurs introduce into production systems in order to achieve excess profits. In his point of view, innovation is the root reason of industrial changes occur, economic cycles vary, and the main source of economic growth. Thus, innovation has become a major factor for any country or region to increase and maintain its international competitiveness and innovation can be added into Porter's diamond model. The new diamond model of national innovative advantage is shown in Figure 3.4.



Opportunities

Firm strategy, structure,

and rivalry

Factor conditions

Demand

conditions

Government

Innovation

Related and supporting industries

**Figure** **3.4: New diamond model of national innovative advantage**

Source: Wang, Jianling (2009), *On International Competitiveness of Contemporary U. S. Animation Industry: Based on Innovative Advantages*, p. 30.

Michael Porter's basic ideas of a country's domestic economic environment has great influence on the industrial competitive advantage, the four factors are respectively factor conditions, demand conditions, related and supporting industries, firm strategy, structure and rivalry.

Each of the factor conditions refers to the country's factor of production. CCIs are constituted of high investment inputs, professionals, research institutions and capital funds, all these elements are the necessary competitive advantages of the CCIs.

Demand conditions is the demand for a product or service in a local market. The domestic market size, growth speed, and the ability to transfer domestic demand into international production are the key factors in improving entrepreneurs efficiency and industrial upgrading.

Related and supporting industries are the upstream and downstream industries which support a particular industry, as well as whether all the other related industries are competitive in global market. For CCIs, the related and supporting industries are touring industries, educational industries, food and beverage industries, manufacturing industries, and so forth.

Firm strategy, structure and rivalry are key to the leading enterprises' establishment, organization and management, as well as competitors' performance. Strategies like marketing strategy, financing strategy, product and pricing strategy are made inside the enterprises, which are one of the most important parts for enterprises.

Innovation is the process through which new ideas are generated and successfully introduced in the marketplace. Innovation is a primary driver of country's economic growth and national competitiveness, it increases the investments in knowledge and technology, stimulates customers' new demand, indirectly leads the changes of government policies and new industrial links. Innovation is the links of the other four factors, all the factors must work through innovation and interact with each other.

These five factors accelerate the development of domestic competitiveness with favorable interactions, improving production efficiency, pushing forward the industrial upgrading and increasing international competitiveness. The new diamond model of national competitive advantage highlights innovation as the core of the international competitiveness, and considers the sustainable innovation is the source of long-term competitive advantage. At a national competition level, economist Nelson thinks that technology innovation and

Expansion can improve national competitive advantage. In his point of view, technology innovation and clustering advantage are closely related to the support of governments and related institutions, such as universities, scientific research institutions, financial institutions, legal system and social management system, they are all influential to innovation and clustering. At a regional competition level, innovation is a determinant of a region's international competitiveness. Economist Cooke holds the view that regional innovation system is made up with the manufacturing enterprises, research institutions and higher education institutions, which are separated and correlated geographically. Innovation is not only critically important for technological enterprises, but for any enterprise that wants to expand their business and maintains its sustainable international competitiveness. Hence, innovation is a new important determinant in improving international competitiveness for any country or region in the informational era, any industry that wants to maintain its sustainable competitiveness must offer financial support in escalating the level of research and development.

#### **Chapter Four Overview of the U. S. CCIs**

The U. S. CCIs have consistently made great economic contribution to the U. S.

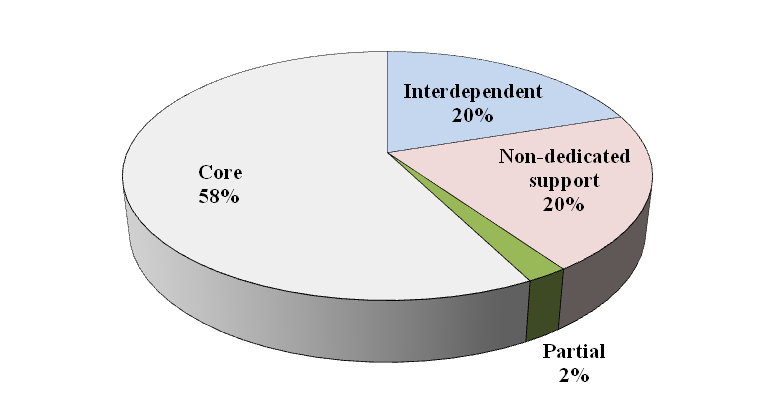
Economy, including increase the numbers of employment, GDP, national income and the people's standard of living. CCIs compose of many different sectors, such as films, music, press, computer software, games, fashion, and so forth, each of the sub-sectors of the U. S. CCIs is discussed in this chapter, as well as its current market size and economic contribution to the whole U. S. economy.

## **4.1** **Economic Contribution of the U. S. CCIs**

The U. S. copyright industries can be divided into four groups according to the classification of the cultural and creative industries by WIPO (2003): core, partial, distribution, and copyright-related.

The core copyright industries are those with primary purpose that is to create, produce, distribute or exhibit copyright materials. These industries include computer software, newspapers, videogames, periodicals and journals, books, motion pictures, recorded music and radio and television broadcasting. Outside the core copyright industries are the partial copyright industries, in which only portions of the products that they create can be qualified for copyright protection. These industries cover from fabric to jewelry to furniture to toys and computer games. The third type is the non-dedicated support industries compose of those that deliver both copyright and non-copyright protected materials to businesses and consumers, such as transportation services, telecommunications and wholesale and retail trade. The fourth type is the interdependent industries, which include those that product, manufacture, and sell equipment whose function is primarily to facilitate the innovation, production, or use of works of copyrighted matter. These industries include manufacturers, wholesalers and retailers of TV sets, personal computers and etc. Figure 4.1.1 present the copyright industries

In the US economy with each of the type and its economic contribution to the overall American economy as a whole.

****

**Figure 4.1.1: Copyright Industries in the US Economy 2012**

Source: Siwek, E., *Copyright Industries in The U.S. Economy 2013*, IIPA

One of the most appropriate way to measure the industries’ economic contribution to the overall economy is to calculate the industries’ value added. Value added shows the economic contribution of labor and capital of a specific industry. The U.S. gross domestic product (GDP) is equal to the total value added of all industries of the United States. Therefore, value added calculations can be a way to represent an industry’s market size and growth rate.

The value added data are obtained from the BEA (Bureau of Economic Analysis). The data is used as starting points to analyze the core copyright and total copyright industries’ economic contribution. After the economic recession during 2008 to 2010, most of the industries have experienced increasing sales and profits during these years. Among them, CCIs are one of the most important contributor to the U.S. GDP. Table 4.1.1 shows the value added to U.S. GDP by the core copyright industries, which grew up to one trillion dollar ($1,015.6 billion) in 2012. The core copyright industries devoted 6.48% of nominal U.S. GDP and the total share of U.S. GDP contributed by the CCIs reached over 11% in the same year.

**Table 4.1.1: Value added 2009-2012 (Billions of US dollars)**

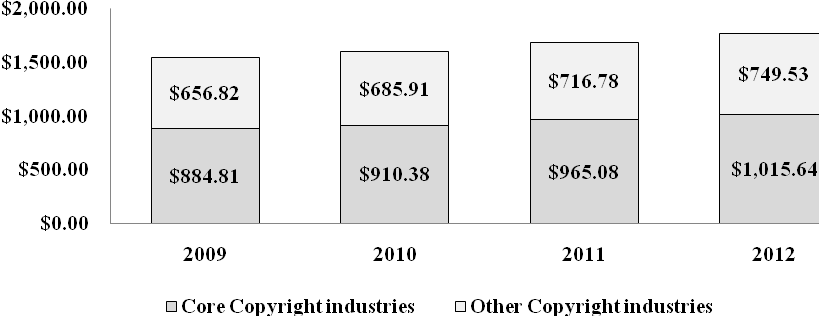
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2009** | **2010** | **2011** | **2012** |
| **Core Copyright Industries** | $884.8 | $910.4 | $965.1 | $1,015.6 |
| **Total US GDP** | $13,973.7 | $14,498.9 | $15,075.7 | $15,684.8 |
| **Core Share of US GDP** | 6.33% | 6.28% | 6.40% | 6.48% |
|  | **2009** | **2010** | **2011** | **2012** |
| **Total Copyright Industries** | $1,541.6 | $1,596.2 | $1,681.9 | $1,765.2 |
| **Total US GDP** | $13,973.7 | $14,498.9 | $15,075.7 | $15,684.8 |
| **Total Share of US GDP** | 11.03% | 11.01% | 11.16% | 11.25% |

Source: Siwek, E., *Copyright Industries in The U.S. Economy* *2013*, IIPA

As shown in Figure 4.1.2, there is an ongoing increase from 2009 to 2012 of the copyright industries value added. The value added for the core copyright industries in 2009, 2010, 2011 and 2012, show an increased from $884.81 billion in 2009 to $1,015.64 billion, or more than one trillion dollar in 2012. Both of the core copyright industries and other copyright industries experience fast growth after the economic crisis of 2008.

**Figure 4.1.2: Copyright industries value added**

**(In billions of current dollars)**



Source: *Copyright Industries in The U.S. Economy* *2013*

The core copyright industries’ dollar share of the U.S. economy is illustrated in Figure 4.1.3, the data has increased from around 6.3% to nearly 6.5% of the U.S. economy from the 2009 to 2012. The core copyright industries’ current dollar share of the U.S. economy reached 6.48% in 2012. The total copyright industries’ data also maintained slightly increase to 11.25% in 2012. With the fast growth impetus, the U.S. CCIs will definitely keep its competitive advantage among all the industries of the United States.

**Figure 4.1.3: Copyright industries share of current dollar GDP**



Source: Siwek, E., *Copyright Industries in The U.S. Economy 2013*, IIPA

Table 4.1.2 shows the economic contribution of the U.S. CCIs to the contribution achieved by other sectors in the same period. The total value added to the U.S. economy by the entire federal government in 2012 was about $668 billion, which is so much lower that the value added created by the CCIs, $1,765 billion. Comparisons of the copyright industries’ value added provide a thorough understanding of the significant role of the CCIs to the U.S. economy.

|  |  |  |
| --- | --- | --- |
|  | **2011** | **2012** |
| Core Copyright – Value Added | $965.1 | $1,015.6 |
| Total Copyright – Value Added | $1,681.9 | $1,765.2 |
|  |  |  |
| Federal Government – Value Added | $658.1 | $668.3 |
| State and Local Government – Value Added | $1,335.8 | $1,357.9 |
|  |  |  |
| Construction – Value Added | $529.5 | $558.7 |
| Health Care and Social Assistance – Value Added | $1,136.9 | $1,164.8 |
| Finance and Insurance – Value Added | $1,159.3 | $1,242.3 |

**Table 4.1.2: Value added comparisons to other sectors 2011-2012 (Billions of US dollars)**

Source: Siwek, E., *Copyright Industries in The U.S. Economy 2013*, IIPA

By seeing the annual growth rate of the CCIs there is no doubt that the U.S. CCIs have made large contribution to the whole U.S. economy. As described in Table 4.1.3, for each of the periods 2009-2010, 2010-2011, and 2011-2012, the U.S. core copyright industries experienced positive real growth in excess of 3.9% annually. Over the entire period

2009-2012, the core copyright industries grew at a real annual growth rate of 4.73%. The

total copyright industries grew at annual rates in excess of 4.3% per year, which is the twice of the U.S. GDP annual growth rate. While the U.S. economy increased at an annual rate of

2.14 for the period 2009-2012, respectively increased at annual rate of 2.39% in 2009-2010, 1.81% in 2010-2011, and 2.21% in 2011-2012. Overall, these industries grew much faster than the whole U.S. economy and would keep growing with fast growth rate.

**Table 4.1.3: Real annual growth rates value added to US GDP**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2009-2010** | **2010-2011** | **2011-2012** | **Annual Growth**  **Rate 2009-2012** |
| Core Copyright Industries | 4.21% | 6.07% | 3.91% | 4.73% |
| Total Copyright Industries | 5.67% | 5.00% | 4.32% | 4.99% |
| US GDP | 2.39% | 1.81% | 2.21% | 2.14% |

Source: Siwek, E., *Copyright Industries in The U.S. Economy 2013*, IIPA

Figure 4.1.4 shows the real annual growth rates by the copyright industries during three periods, 2009-2010, 2010-2011, and 2011-2012. The core copyright industries increased in excess of 3.9% in the first and the third period, and got a peak growth rate of 6.07% in the second period. Similarly, the total copyright industries largely grew with an excess of 4.3% in the first two periods, and reached a peak growth rate of 5.67% in the period of 2011 to 2012. However, the U.S. economy real growth rates were just 2.39%, 1.81% and 2.21% in each of the same period. Figure 4.3 shows the fact that the core and the total copyright industries grow much faster than the growth of the U.S. GDP since 2008.

**Figure 4.1.4: Real annual growth rates CCIs and GDP**

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Source: Siwek, E., *Copyright Industries in The U.S. Economy 2013*, IIPA

Apart from the value added and the annual growth rate, trends in employment also provide economic evidence for the economy. Table 4.1.4 demonstrates the employment figures for the CCIs from 2009 to 2012. The workforce of the total copyright industries accounted for 8.27% of the total U.S. workforce in 2009, the data increased to 4.04% in 2012. The total copyright industries employed more than 10.8 million labors in the year of 2009, which grew to more than 11.7 million in 2012. The total U.S. employment is 2012 was 736,200 in 2012.

**Table 4.1.4: Total employment 2009-2012 (In thousands)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2009** | **2010** | **2011** | **2012** |
| Core Copyright Industries | 5,178.1 | 5,202.9 | 5,296.9 | 5,399.1 |
| Total US Employment | 130,859.0 | 129,911.1 | 131,499.8 | 133,736.2 |
| Core Share of US | 3.96% | 4.00% | 4.03% | 4.04% |
|  | **2009** | **2010** | **2011** | **2012** |
| Total Copyright Industries | 10,818.6 | 10,776.9 | 10,944.1 | 11,170.9 |
| Total US Employment | 130,859.0 | 129,911.1 | 131,499.8 | 133,736.2 |
| Total Share of US | 8.27% | 8.30% | 8.32% | 8.35% |

Source: Siwek, E., *Copyright Industries in The U. S. Economy 2013*, IIPA

The U. S. CCIs employment is also expressed in Figure 4.1.5, which is more visual and direct to see the fast grow of the data. Figure 4.1.5 shows the change of the total number of workers in the CCIs from 2009 to 2012.

**Figure** **4.1.5: US Copyright industry employment**



**（In thousands）**

Source: Siwek, E., *Copyright Industries in The U. S. Economy 2013*, IIPA

Valued added index and employment data are both strong evidence that the U. S. CCIs

Have continuously outperformed most of the rest industries of the U. S. economy. The CCIs generate significant share of the GDP and hire millions of workers for the whole economy. What's more, the CCIs continue to play great positive influence on the U. S. international trade and exports. Consumers outside the U. S. market could enjoy the entertaining pleasure from the U. S. cultural products and services through imports. Therefore, copyright products sold abroad create lots of economic benefit for the U. S. and they are protected by the copyright law no matter where these cultural products or services are manufactured or provided as long as their copyrights belong the their country. The core industries are: the sound recording industry, the motion picture industry, the computer software industry, and the non-software publishing industry which includes newspapers, books, and periodicals. Figure

### 4.1.6 shows the U. S. CCIs’exports from 2009 to 2012.

**Figure** **4.1.6: Revenue generated by foreign exports of selected CCIs 2009-2012(Billions of dollars)**



Source: Siwek, E., *Copyright Industries in The U. S. Economy 2013*, IIPA

Foreign sales and exports show a country's strength in competing with other countries in the international market. The annual growth rates for foreign sales of the U. S. CCIs are provided in Table 4.1.5. As presented below, foreign sales for CCIs substantially increased in 2010 with 3.6% and 2011 with 5.3%, and remained flat in the year of 2012.

Table 4.1.5: Annual growth rate of foreign sales and exports

|  | 2010 | 2011 | 2012 |
| --- | --- | --- | --- |
| Growth Rate | 3.6% | 5.3% | 0.8% |

Source: Siwek, E., *Copyright Industries in The U. S. Economy 2013*, IIPA

The foreign exports of the core copyright industries remain larger than the exports of other industries of the U. S. Table 4.1.6 shows the major industry sectors of the U. S. covering chemicals, agricultural products, aerospace products and parts, food and kindred products, and pharmaceuticals. It is seen that the core copyright industries have again outperformed most of the rest sectors with its sales of $142.0 billion, while aerospace exports $105.8 billion, food creates $64.7 billion, agricultural exports $71.1 billion, and pharmaceuticals and medicines generates $50.9 billion in 2011.

**Table** **4.1.6: Foreign sales and exports for selected industries**

（Billions of dollars）

|  | 2011 | 2012 |
| --- | --- | --- |
| Selected Copyright Industries (Computer Software; Motion Pictures,  TV, Video; Recorded Music; Newspaper, Books, Periodicals) | $140.9 | $142.0 |
| Chemicals (excluding Pharmaceuticals and Medicines) | $131.6 | $146.7 |
| Aerospace Products and Parts | $89.4 | $105.8 |
| Agricultural Products | $72.0 | $71.1 |
| Food and Kindred Products | $59.9 | $64.7 |
| Pharmaceuticals and Medicines | $47.9 | $50.9 |

Source: U. S. exports by industry were taken from the International Trade Statistics" Censtats" data base at the U. S. Census Bureau. Export statistics by industry were identified by NAICS code.

According to the data analyzed above, it is obvious that the U. S. CCIs have outperformed the rest of the U. S. industrial sector regarding to the annual growth rates and exports volume. The U. S. CCIs not only make great economic contribution to the country's GDP, but also generate thousands of job opportunities for the society and community. With strong global competitiveness, the U. S. CCIs keep exporting cultural products and services to the rest of the world and solidifying their global leadership in the cultural industries. New technologies, continuous innovation, resourceful culture and arts elements, large domestic market and global market, and legitimate copyrighted products, great laws and enforcement

Protection all allow the U. S. CCIs to enjoy a long-term economic growth in the future.

## **4.2** **History and current situation of the U. S. CCIs**

From 1920s to WWII, the U. S. CCIs experienced a fast growth. The emerge of the industrial revolution brought high technologies to sectors including radios, TV, films, press, which all began to dominate and kept challenging the traditional ways of producing cultural products and services.

The 1920s to 1930s was the so-called golden era for radio industries. The expenses on radio sets reached over $60 million in the U. S. market in 1922, and rose substantially to $358 million two years later in 1924. The popularization of radio was the business success of the three largest radio enterprises including NBC, ABC and CBS. Movie industries also developed quickly at the same time, later Hollywood formed with its basic structure in 1925. Among growing competition, many successful film production companies like Walt Disney, Paramount, Warner Brothers, 20 Century Fox began to dominate the film market in the middle of 1920s. The movie industry became a significant industry at that time with its total capital investment of one billion dollar in 1926, and it was the only prospering industry

During the U. S. economic depression from 1929 to 1931. In movie industry, the first half of the 20th century was marked as the" Golden Age of Hollywood". The average moviegoers in 1930 grew to $90 million every week, and maintained $82 million of average moviegoers during WWII. Meanwhile, sectors like newspapers and periodicals expanded as people's living standards improving and income increasing. The domestic consumers spent much more

On entertainment, arts, and leisure activities than the last several centuries. During 1980s to 1990s, many media giants experienced a huge wave of acquisitions and mergers. Capitals, resources, and markets gradually converged into several monopolies, which resulted into Disney, Viacom, Time Warner, News Corp, and GE, they controlled about 90% of the U. S. cultural market shares. As the globalization and digital media monopolizing, the U. S. copyright industries quickly transformed and updated in order to meet the market demand. Internet and digital devices increase the popularization of information and change the format of newspaper, movies, books, and music.

An overview of the U. S. current copyright industries including publishing, radio and television broadcasting, motion pictures, internet and computer software, video and computer games, non-profit arts and culture industry is provided as below.

### **4.2.1** **Publishing industries**

The publishing industry is in the midst of rapid transformation. Technology has changed how content is created, formatted, designed, stored, printed, digitized, distributed, and sold. The U. S. Trade Publishing Industry, which produces fiction and non-fiction for children, adults, and teenagers, has experienced significant growth in 2012 with eBooks increasing 45% over the past year while hardcovers and paperbacks kept steady according to the BookStates, the most comprehensive survey of the size of scope of the U. S. book publishing industry. There are around 35,800 active publishers of the U. S. publishing industry. Publishers are grouped according to their market size. According to the BookStats, Table

### 4.2.1 shows the numbers of active publishers in each category.

**Table** **4.2.1: Numbers of publishers and categories**

| Categories | Number of Publishers |
| --- | --- |
| Trade – Adult Fiction | 603 |
| Trade – Juvenile | 496 |
| Trade – Adult Non-fiction | 1,041 |
| Trade – General | 1,099 |
| Religion | 622 |
| Arts | 648 |
| Law | 104 |
| Medical | 160 |
| Business | 291 |
| Technical and Scientific | 708 |
| General Education | 310 |
| Textbooks | 33 |
| University Press | 220 |

Source: BookStats 2013

The overall publishing industry includes authors, publishers, publishing service providers, printers, manufacturers, wholesalers, retailers, e-tailers, and consumers. Trade publishing (including adult fiction, adult nonfiction, juvenile, and religion) is the largest

Category in terms of both net revenues and units sold, followed by education, higher education, professional, and scholarly. The combined trade category accounts for 49.9% of net sales in 2011. (See Figure 4.2.1 )

****

**Figure** **4.2.1: Revenue Market Share by Category**

Source: BookStats 2013

Table 4.2.2 demonstrate the sales situation of the print books in the U. S publishing industry. The sales volume slight dropped 2.5% from 2012 to 2013 due to the increasing sales of ebooks.

Table 4.2.2: Unit sales of print books in retail and club channel, 2012-2013

|  | 2012 | 2013 | % Change |
| --- | --- | --- | --- |
| **Total** | 514,135,000 | 501,658,000 | -2.5% |

Source: Nielsen Bookscan

Table 4.2.3 shows the sales of books by categories, including adult nonfiction, adults fiction, juvenile nonfiction and juvenile fiction. The adult nonfiction sales most with the number of 225,224,000 in the year of 2013. The unit sales of adult fiction, juvenile fiction and juvenile nonfiction are ranked as the second, the third and the fourth as the data demonstrated in Table 4.2.3.

Table 4.2.3: Unit sales of print books by category, 2012-2013

|  | 2012 | 2013 | % Change |
| --- | --- | --- | --- |
| Adult Nonfiction | 225,708,000 | 225,224,000 | -0.2% |
| Adult Fiction | 116,600,000 | 103,477,000 | -11.2% |
| Juvenile Nonfiction | 31,261,000 | 33,081,000 | 5.8% |
| Juvenile Fiction | 110,800,000 | 111,097,000 | 0.2% |

Source: Nielsen Bookscan

Table 4.2.4 presents sales of books by formats including the unit sales of handcover,

Trade paperback, mass market paper back, board book and audio book.

Table 4.2.4: Unit sales of print books by format, 2012-2013

|  | 2012 | 2013 | % Change |
| --- | --- | --- | --- |
| Hardcover | 140,333,000 | 139,762,000 | -0.4% |
| Trade Paperback | 290,482,000 | 282,024,000 | -2.9% |
| Mass Market Paperback | 49,649,000 | 45,138,000 | -9.1% |
| Board Books | 11,036,000 | 12,802,000 | 16.0% |
| Audio | 4,923,000 | 4,654,000 | -5.5% |

Source: Nielsen Bookscan

According to BookStats, total net revenue for the publishing sector was $15.049 billion in 2012, which increased 6.9% over 2011. The overall book and journal publishing industries generated $27.01 billion in net revenue for 2013, representing 2.50 billion in units (See Table

4.2.5 and Table 4.2.6)

Table 4.2.5: Overall trade–net revenue

| 2012 | 2011 | % Change |
| --- | --- | --- |
| $15.049 billion | $14.080 billion | + 6.9% |

|  |  |  |
| --- | --- | --- |
| **2012** | **2008** | **% Change** |
| $15.049 billion | $13.173 billion | +14.2% |

Source: Nielsen Bookscan

Table 4.2.6: Overall trade–net units

| 2012 | 2011 | % Change |
| --- | --- | --- |
| 2.291 billion | 2.120 billion | +8.1% |

|  |  |  |
| --- | --- | --- |
| **2012** | **2008** | **% Change** |
| 2.291 billion | 2.164 billion | +5.9% |

Source: Nielsen Bookscan

Books are sold through channels including traditional brick-and-mortar retailers, bookstore chains, independent bookstores, jobbers and wholesalers, and online retailers. Apart from the books publishing, newspaper printing is also under transformation of technology and new media. In contrast, on-line newspapers has been widely-used and is much more interactive with readers than traditional newspapers. Many newspapers have already somewhat changed or adjusted their traditional printing, adding on-line newspaper applications and websites to catch the speed of technology and information changes. The top ten U. S. newspapers such as Wall Street Journal, New York Times, USA Today, Los Angeles

Times and Daily News of New York, they are ranked by average weekday circulation counted in 2013 as shown in the Table 4.2.7 below.

Table 4.2.7: Newspapers by Average Circulation 2013

|  | Total Average Circulation  Excluding Branded | Total Digital  Editions | Print  Edition |
| --- | --- | --- | --- |
| Wall Street Journal | 2,293,798 | 898,102 | 1,395,696 |
| New York Times | 2,322,429 | 1,067,923 | 1,254,506 |
| USA Today | 1,7674,306 | 249,900 | 17,424,406 |
| Los Angeles Times | 954,010 | 178,369 | 775,641 |
| Daily News of New  York | 587,905 | 156,386 | 431,519 |
| New York Post | 353,900 | 104,333 | 248,567 |
| The Washington Post | 671,101 | 31,135 | 639,966 |
| Chicago Sun-Times | 406,094 | 74,784 | 331,310 |
| The Denver Post | 529,267 | 165,612 | 363,655 |
| Chicago Tribune | 781,324 | 74,484 | 706,840 |

Source: Alliance for Audited Media

### **4.2.2** **Broadcasting and telecommunications industries**

After the second world war, the U. S. television started to develop rapidly. In the early 1950s, the rise of broadcasting has shocked the radio industry greatly. Over 30% of the U. S. family had TV set in 1952, the ratio increased to 86% at the end of the 1950s. With the success of the first satellite, U. S. expanded its TV programs to the rest of the world. In 1972,

U. S. became the country with the largest number of TV set and the television revenue reached $11.48 billion in 1980. As technology advancing and the mass media improving, U. S. television and broadcasting industry keeps its leadership in the global market with its sustainability for half a century. There are 150 television stations, broadcast mobile TV in 50 markets, reaching half of the U. S. population. For instance, CNN (Cable News Network) has been consistently broadcasting its programs through different languages to more than 200 countries and regions across the world. The biggest three television companies are respectively CBS (Columbia Broadcasting System), ABC (American Broadcasting Company) and NBC (National Broadcasting Company). The five largest media groups are Times Warner, Walt Disney, VIACOM, News Group and General Electric. In 2005, these five media giants’

Annual income reached over $137.9 billion and 75% of the TV programs under control by the

U. S. are having high market share in about 200 countries.



|  |  |  |
| --- | --- | --- |
|  |  |  |

**The U.S. Four Big TV station logo**

The commercial local radio and television broadcast industry is important not only because of its direct employment, but also because of the industries and economic activity it supports. There are more than 2,220 radio stations on the air and more than 1,450 additional channels in the U.S.

**Figure 4.2.2: Broadcast TV 2011-2012**



Source: The Statistics Portal

Through advertising, the industry provides consumers with critical economic data on the price and features of products and services. For business, the industry provides a forum for getting messages about innovations and efficiencies directly to consumers. According to the U.S. Census Bureau, there were 2,235 establishments primarily broadcasting visual programs by television to the public, except cable and other pay television services in 2008 with industry-wide employment of 126,788 professionals. The industry reported 3,821 television broadcasting stations with annual sales of $616.017 million in 2010 with a workforce totaling 150,468 professionals. On average, each television broadcasting station employed 48 professionals that generated about $32.5 million. In 2012, the U.S broadcasting and telecommunications industries’ annual output is $757,361 billion, while annual output of

$717.464 billion in 2011 and $687.369 billion in 2010.

**Figure 4.2.3: Annual output of the U.S. broadcasting industries (US$ billions)**



Source: The Statistics Portal

### **4.2.3** **Motion picture and sound recording industries**

The motion picture industry creates films, television programs, and other motion picture products (such as commercials and music videos) by distributing through various channels, including movie theatres, television broadcasters, and retailers. Up to 2013, the U. S. has 5,683 cinema sites with total 39,824 movie screens. As growing, the large and giant theatres and cinemas are expanding to 638 in 2009, becoming a leader of the world film industry. Meanwhile, as movie theaters continue to switch to digital and 3D projection systems, ticket prices typically rise, allowing for industry revenue gains in a large extent.

Advances in film and movie technologies have helped increase the demand for cinemas, from which viewer cannot get from home movies. American film copyright industry's total earnings have surpasses over $100 billion by the end of 2010, including audio and radio, box office, software, games, toys, tourism, entertainment, theme parks. The overall U. S. movie box office accounts for more than 60% of the global movie box office with $19.3 billion in the year of 2009.

It is considered that California is the home of film and television industry. Hollywood has set a new annual record in the domestic box office by taking in $10.9 billion. As for the global market, its box office exceeded $30 billion from 622 feature films released in 2013. The federal Bureau of Labor Statistics reported that in 2012, there were 205,000 film and television production jobs and 16,000 film and television post-production jobs in the nation. California had 107,400 film and television production jobs in 2012, which is more than 52

Percent of the 205,000 industry jobs in the nation. As shown in the Figure 4.1, New York is the only state with a significant number of film and television production jobs. Florida, Pennsylvania, Louisiana, New Jersey, Georgia, and Texas each account for about two percent of U. S. jobs in the industry.

**Figure 4.2.4: Motion Picture Production Employment in the U. S.**



Source: The Statistics Portal



The Movie Theaters industry receives no direct government assistance in the form of tariffs or subsidies. The Motion Picture Association of America (MPAA) is a professional association for the motion picture production sector, which is composed of six" Majors" American studios in southern California, including Walt Disney Studios Motion Picture; Paramount Pictures Corporation; Sony Pictures Entertainment Inc.; Twentieth Century Fox Film Corporation; Universal City Studios LLC; and Warner Bros. Entertainment Inc. and five of the best-known independent studios (Mini Majors, including Dreamworks, Lionsgate, Weinstein Co., FilmDistrict and Relativity). Below is the logos of the six major American studios and the Mini Majors:

|  |  |
| --- | --- |
| c:\users\lenovo\appdata\roaming\360se6\USERDA~1\Temp\FILMDI~1.JPG | c:\users\lenovo\appdata\roaming\360se6\USERDA~1\Temp\RM_LOG~1.JPG |

As shown in the Figure 4.2.5, the U. S. is the country with the greatest numbers of cinema screens and non of the rest of countries can compete with it in this aspect.

**Figure 4.2.5: 2012 Cinema Screens by Format and Region**



Source: MPAA’s Theatrical Market Statistics 2009

In 2013, the digital screens of the U.S. quickly increased by 11% from 2012, accounting for over 90% of total screens due to the improvement of technology and film innovation. In order to maintain its sustainable competitiveness, the U.S. film market quickly shift the traditional non-3D cinemas into 3D-digital screens so as to satisfy consumers’ needs and create fantastic visual and audio experience for them. There are over 2,500 non-3Ddigital screens in 2013, increasing by 14% from 2012, which takes five percent of the total U.S. screens. Meanwhile, the numbers of digital 3D screens increased seven percent as well from 2012. The numbers of cinema screens of the U.S. film market are shown in Figure 4.2.6.

**Figure 4.2.6: Numbers of cinema screens in the U.S. film**

**market**

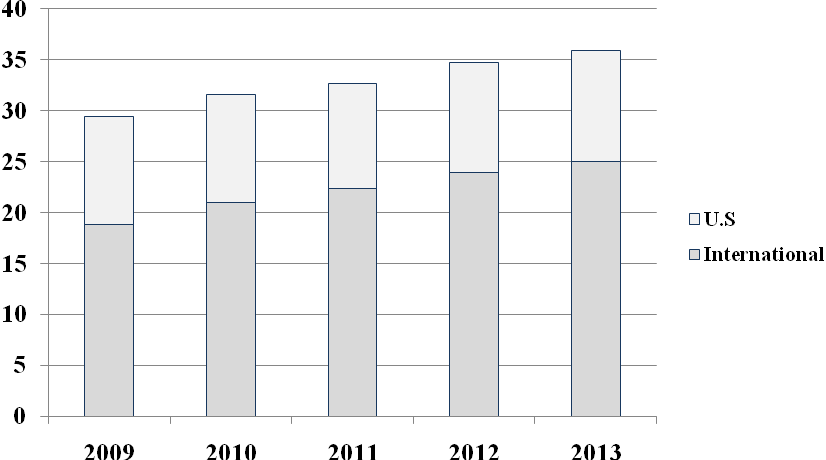


Source: MPAA’s Theatrical Market Statistics 2009

The U.S. box office accounts large amount of the international box office, which is around 30% of the overall global box office. As shown in Figure 4.2.7, the global box office for all films released in all countries reached $35.0 billion in 2013, up four percent of the 2012. The increase was result to the rising box office of the U.S. box office, which is up 33% over five years ago. In the year of 2013, U.S. box office was $10.9 billion, up one percent from $10.8 billion in 2012, and up three percent from 2009. It is seen that the U.S. box office accounts for the largest global box office in the international movie industries, and the portion keeps growing year by year with stronger growing impetus. All this are result to the fact that the U.S. CCIs have been upgrading the industries by consistently innovating the technology and expanding the overseas markets. See Figure 4.2.7and Table 4.2.8.

**Figure 4.2.7: Global and the U.S. box office**

**(US$ billions)**



**$34.7**

**$35.9**

**$29.4**

**$31.6**

**$32.6**

**10.8**

**10.9**

**10.2**

**10.6**

**10.6**

**18.8**

**(64%)**

**21.0**

**(66%)**

**22.4**

**(69%)**

**23.9**

**(69%)**

**25.0**

**(70%)**

Source: MPAA’s Theatrical Market Statistics 2009

**Table 4.2.8: Global and the U.S. box office (US$ billions)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2009** | **2010** | **2011** | **2012** | **2013** | **% Change**  **13 vs. 12** | **% Change**  **13 vs. 09** |
| U.S. | $10.6 | $10.6 | $10.2 | $10.8 | $10.9 | 1% | 3% |
| International | $18.8 | $21.0 | $22.4 | $23.9 | $25.0 | 5% | 33% |
| Total | $29.4 | $31.6 | $32.6 | $34.7 | $35.9 | 4% | 22% |

Source: MPAA's Theatrical Market Statistics 2009

According to MAPP, the American movie theaters industry is in the mature phase of its

Life cycle, steady technological change and wide market acceptance. For instance, even in recessionary 2009, the successful movie of Avatar, its gross box office and higher-priced 3D ticket sales all created a strong 3.2% increase in revenue during that year, which exemplified a powerful influence of a single blockbuster in the CCIs. .

### **4.2.4** **Music industries**

The American music industry generated $15 billion in 2012, making up 30 % of the total 50 billion U. S. dollars generated by the global music industry. Currently, the U. S. has over 1,200 existing recording companies, among them, Warner Music, SONY Music Entertainment, BMG (Bertelsmann Music Group) and several other music companies which are the main competitors in the U. S. music market. The U. S. total music companies has taken over 60% of the world recording music market. See Figure 4.2.8.

**Figure** **4.2.8: U. S. Music Industry Overview(US$ billions)**



Source: Nielsen SoundScan

According to Nielsen SoundScan and Nielson, the American music industries successfully sold 150.5 million albums in 2012. Even the total album sales slightly dropped 5.6% with 142 million albums in 2013 from 2012 due to the increase of digital albums, the industrial profit is still significant and largely outperformed than the rest of competitors. Therefore, even with a slight down in the overall sales, the total album sales is still tremendous and competitive in both domestic and international music markets. Total album

Sales is presented in Table 4.2.9.

**Table** **4.2.9: Total Album Sales**

（Includes CDs, Cassettes, Digital Albums–In Millions）

| （In Millions） | 2013 | 2012 | % Chg. |
| --- | --- | --- | --- |
| Units Sold | 142 | 150.5 | -5.60% |

Source: Nielsen SoundScan

### **4.2.5** **Computer system design and related services industries**

The U. S. internet and computer software has been maintaining the leadership in the world for years. Usually, a country's online population represents the country's development and maturity in its internet industry. According to the Internet Usage Statistics by 2014, 87% of the U. S. population are frequent internet users and the internet users spend 23 hours per week on-line. With large domestic and overseas market, U. S. has been the biggest software producer and exporting over 40% of the world software production, the computer systems design and related service output $326.986 billion in 2012. The U. S. has more than 80,000 software companies with 18% annual growth rate of the internet industry.

The U. S. has been successful in establishing a cross-industrial and international value chain through combing CCIs with finance, tourism, manufacturing, real estates, broadcasting and media, internet technology and cartoon, which has made lots of economic benefits for the United States. With continuously innovation, advanced technology and new idea, the U. S. computer and related industries succeed in maintaining industrial sustainability and international competitiveness.

### **4.2.6** **Non-profitable arts and culture industry**

The non-profitable arts and culture industry is also booming in the United States. They drive a $166 billion industry, in which they supports 5.7 million full-time jobs and contributes nearly $30 billion in government revenue annually. The U. S. government directly finances over 1200 museums including the world famous museums like Metropolitan Museum of Art, Washington National Gallery of Art, Museum of Fine Arts, and Philadelphia Museum of Art. The federal government also holds and manages 388 parks and 12,000 historical heritage

Sites, with a total area of about 337,000 square meter of 8,500 monuments and memorial statues. According to statistics, the U. S. non-profitable arts and culture contributes over $36.9 billion to the U. S. economic output, creating over 1,300,000 job opportunities in 2012. There are thousands of art shows and exhibitions held annually, among them 67% of the industrial exhibitions are non-profitable arts and culture shows. They have been bringing large economic and intangible cultural benefits to the American CCIs.

### **4.2.7** **Amusement, gambling, and recreation industries**

According to the data from Bureau of Labor Statistics of the U. S. Department of Labor, these industries generate around 1.5 million jobs including amusement and recreation attendants, bartenders, fitness trainers, lifeguards, waiters and waitresses. As Figure 4.2.9 shows that these industries' total industry output was $113.041 billion in 2010, $118.220 billion in 2011 and $123.579 billion in 2012.

**Figure** **4.2.9: Annual output of the amusements, gambling, and recreation industries(US$ billions)**



Source: Economic Research

**Chapter 5** **Quantitative analysis**

This chapter analyzes 26 countries' competitiveness of their CCIs by using the

Principal component analysis, including 14 developed countries such as US, UK, and 12 developing countries like the BRICS. Through statistics collection and SPSS software, each of the country's competitiveness of its CCIs is measured and ranked with scores.

## **5.1** **Principal Component Analysis**

Principal component analysis (PCA) is a way of measurement and calculation of observed variables, developing a smaller number of variables (called principal components) that will account for most of the variance among the observed variables. This method was invented by Karl Pearson in 1901, and was further developed by Harold Hotelling in the 1930s. It is usually used as a tool in exploratory data analysis and for making predictive models. The Principal Components Analysis is conducted through eigenvalue decomposition of a data matrix. The results of the analysis are usually discussed in terms of component scores, which also named factor scores (the transformed variable values corresponding to a particular data point), and loadings (the weight by which each standardized original variable should be multiplied to get the component score). It is one of the oldest, simplest and useful statistical method to illustrate the interrelationship of the correlated variances and provide specific assumptions for research and studies.

## **5.2** **Choice of index**

With the guidance of Michael Porter's Diamond Model, this thesis uses the factors in Porter's Diamond Model and choose five different groups of indexes including 20 detailed indexes which are quantified in order to research the international competitiveness of the cultural and creative industries.

### **5.2.1** **Factors conditions**

Factors of production is the prior factor among the four factors in the Diamond Model, which is critical for a nation's industrial development. Factor conditions are human resources, physical resources, knowledge resources, capital resources and infrastructure. Therefore, factors of production can also be the presumption and basic of any country's CCIs. The labor resource is chosen as an index:

X1–Mean year of schooling, reflecting a nation's overall average educational level; X2–Human Development Index (HDI), is a composite statistic of life expectancy,

Education, and income indices used to rank countries into four tiers of human development. The HDI ranges from 0 to 1, the greater and closer to 1 refers to higher economic and social development;

X3–Educational Index, is a major component of well-being and is used in the measure of economic development and quality of life, which is a major factor determining whether a country is a developed, developing, or underdeveloped nation. It also reflects a country's civil average educational level. All countries considered to be developed countries possesses a minimum score of 0.80 or above.

### **5.2.2** **Demand conditions**

Demand conditions is the home market can help companies create a competitive advantage, when sophisticated home market buyers pressure firms to innovate faster and to create more advanced products than those of competitors.

Demand conditions is the market demand for a kind of good or service, including quantity demand and quality demand for products or services, as well as domestic demand and international demand. Any industry relies on its domestic demand to improve its industrial advantages, cultural and creative industries is not an exception. For CCIs, the first and most important element is the domestic demand from the people of the country, which guarantees capitals and consumers. Therefore, relative index is relevant to the domestic demand conditions.

X4–GPD per capita (U. S. $), which is the value of all final goods and services produced within a nation in a given year, converted at market exchange rates to current U. S. dollars. It shows the citizen's average standards of living and the ability of consumption.

X5–GPD per capita average annual growth rate, representing the future trend of people's living standards.

X6–Household final consumption expenditure (% of GDP), is the market value of all goods and services purchased by households. It represents the people's consumption of a country.

X7–Income index, showing the households' disposable income status.

### **5.2.3** **Related and supporting industries**

International competitiveness is the iteration and connection of many related industries and supporting industries. As for cultural and creative industries, the related and supporting industries include tourism, educational industry and information industry, which play important role in assisting the development of CCIs.

The first related and supporting industry is tourism. Tourism is the carrier of culture and an important approach for CCIs. X8–International tourism receipts (billion dollar), X9–International travel revenue (billion dollar), X10–International tourism, numbers of arrivals (million).

The development of education is critical to a country's labor force and the overall quality of the cultural and creative industries, which explains why research on educational index is so important to a country's international competitiveness of its CCIs. The indicators include: X11–School enrolment of primary education (% gross), X12–School of enrolment of secondary education (% gross), X13–School enrollment, tertiary (% gross).

The rapid development of information industries have brought magnificent benefit for the CCIs by broadcasting and delivering the cultural and creative products with digital media and technologies. The number of internet users determines the market size of the CCIs and the speed of information transfer. The indications are: X14–Internet user per 100,

X1–Information and communication technology (ICT) service exports (billion dollar).

### **5.2.4** **Firm strategy, structure and rivalry**

The presence of intensive rivalry is also important, it creates pressure to innovate in order to upgrade competitiveness. Enterprises must accept the fact that competition is everywhere and keep innovating so as to maintain its competitive advantage in the global market. The enterprises' competitiveness can be measured by export volumes, because the numbers of export shows the strength of international competitive advantage in the global competition. Therefore, the export volumes of a country's CCIs is selected, including X16–Personal, cultural and recreation services export (billion dollar), X17–Charge for the use of intellectual property, payments (billion dollar).

### **5.2.5** **Government**

Apart from the four factors mentioned above, one additional factor that can influence the four determinants of competitiveness is government. The policies or related government behaviors can have positive or negative influence on the nation's competitiveness of its CCIs. Therefore, the government related indicators must be considered into this study, including X18–Government research and development expenditure (% of GDP), X19–Government expenditure on education (% of GDP), X20–Tax revenue (% of GDP).

## **5.3** **Data source and data process**

This quantitative study collects and organizes the above 20 indicators from 26 countries based on the statistics from the World Bank. There are 12 developing countries and 14 developed countries included in this study, the main purpose is to analysis these countries' international competitiveness of their CCIs especially the United States. The 20 indicators including educational indicators, economic indicators, consumption and income indicators,

Related and supporting industries data like technology and touring industries, exports, copyright revenues, tax incomes, government expenditures on education, research and development and etc. The original data collected from World Bank is presented in the following Table 5.1.

Table 5.1: The original data collection and variance

|  | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | X9 | X10 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| China | 7.5 | 0.699 | 0.851 | 6569.348 | 7.1 | 34 | 0.72 | 54.937 | 48.24 | 57.725 |
| U.S. | 13.3 | 0.937 | 0.968 | 52839.162 | 1.1 | 69 | 0.95 | 200.092 | 171.39 | 66.969 |
| Japan | 11.6 | 0.912 | 0.949 | 39321.185 | 1.7 | 61 | 0.89 | 16.197 | 14.9 | 6.79 |
| Korea | 11.6 | 0.909 | 0.998 | 23837.706 | 2.5 | 52 | 0.86 | 19.653 | 14.4 | 11.14 |
| Singapore | 10.1 | 0.895 | 0.913 | 52917.951 | 2.2 | 38 | 1.00 | 19.261 | 19.2 | 11.098 |
| UK | 9.4 | 0.875 | 0.957 | 39048.656 | 1.1 | 66 | 0.89 | 45.966 | 40.2 | 29.282 |
| Canada | 12.3 | 0.911 | 0.991 | 51871.213 | 0.8 | 56 | 0.91 | 20.696 | 17.61 | 16.344 |
| France | 10.6 | 0.893 | 0.968 | 42990.854 | -0.3 | 57 | 0.89 | 63.53 | 56.69 | 83.013 |
| Australia | 12 | 0.938 | 0.993 | 45138.99 | 0.9 | 55 | 0.91 | 34.13 | 31.6 | 6.146 |
| New Zealand | 11.6 | 0.919 | 0.993 | 40465.267 | 1.6 | 58 | 0.87 | 5.467 | 5.405 | 2.473 |
| Italy | 10.1 | 0.881 | 0.965 | 33909.123 | -2.3 | 60 | 0.87 | 43.036 | 41.9 | 46.36 |
| Spain | 10.4 | 0.885 | 0.975 | 29408.933 | -1 | 59 | 0.87 | 63.198 | 60.25 | 52.178 |
| Germany | 12.2 | 0.92 | 0.954 | 43952.005 | 0.2 | 57 | 0.92 | 51.581 | 41.27 | 30.411 |
| Ukraine | 11.3 | 0.74 | 0.96 | 3861.697 | 2.1 | 73 | 0.67 | 5.988 | 5.13 | 23.013 |
| Portugal | 7.7 | 0.816 | 0.929 | 20663.231 | -0.9 | 65 | 0.83 | 14.559 | 12.35 | 7.503 |
| Mexico | 8.5 | 0.775 | 0.886 | 11224.484 | -0.2 | 67 | 0.77 | 13.32 | 13.22 | 23.403 |
| Brazil | 7.2 | 0.73 | 0.891 | 10957.613 | 1.6 | 63 | 0.75 | 6.89 | 6.71 | 5.677 |
| Russia | 11.7 | 0.788 | 0.933 | 14973.481 | 1.1 | 52 | 0.82 | 17.876 | 12.24 | 28.177 |
| India | 4.4 | 0.554 | 0.45 | 1414.11 | 3.7 | 62 | 0.6 | 18.34 | 17.927 | 6.578 |
| Malaysia | 9.5 | 0.769 | 0.851 | 10428.572 | 3 | 51 | 0.81 | 20.251 | 20.1 | 25.033 |
| Cambodia | 7.3 | 0.543 | 0.704 | 1015.284 | 5.5 | 82 | 0.5 | 2.0 | 1.788 | 3.584 |
| Mongolia | 8.3 | 0.675 | 0.722 | 3880.568 | 10.1 | 49 | 0.67 | 0.488 | 0.369 | 0.476 |
| Romania | 10.4 | 0.786 | 0.915 | 8630.186 | 4.1 | 72 | 0.87 | 1.919 | 1.86 | 7.937 |
| Indonesia | 5.8 | 0.629 | 0.84 | 3498.505 | 4.5 | 59 | 0.68 | 9.463 | 9.33 | 8.044 |
| Egypt | 6.4 | 0.662 | 0.697 | 3113.841 | 0.4 | 81 | 0.7 | 10.823 | 7.24 | 11.196 |
| Thailand | 6.6 | 0.69 | 0.999 | 5878.751 | 1.4 | 54 | 0.74 | 37.74 | 33.827 | 22.354 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **X11** | **X12** | **X13** | **X14** | **X15** | **X16** | **X17** | **X18** | **X19** | **X20** |
| 127.9 | 89 | 27 | 45.8 | 68.54 | 0.156 | 1.044 | 1.98 | 1.9 | 11.1 |
| 98.8 | 94 | 95.3 | 84.2 | 143.962 | 0.76 | 124.182 | 2.8 | 5.4 | 10.5 |
| 102.6 | 101.8 | 59.9 | 86.3 | 27.794 | 0.158 | 31.437 | 3.3 | 3.8 | 10.1 |
| 101.4 | 96.7 | 100.8 | 84.8 | 23.929 | 0.516 | 4.108 | 4.04 | 5.1 | 14.4 |
| 91.06 | 44.6 | 93.2 | 73 | 28.532 | 0.516 | 1.674 | 2.1 | 3.3 | 14 |
| 106.9 | 97.4 | 61.2 | 89.8 | 114.08 | 5.466 | 12.458 | 1.8 | 5.6 | 26.9 |
| 101.4 | 102.3 | 58.9 | 85.8 | 34.633 | 1.991 | 3.711 | 1.73 | 5.0 | 11.5 |
| 108 | 109.9 | 57.1 | 81.9 | 65.542 | 6.006 | 12.407 | 2.26 | 5.9 | 22 |
| 119.2 | 133 | 82.3 | 83 | 9.827 | 0.788 | 0.86 | 2.39 | 4.43 | 21.4 |
| 100.1 | 119 | 80 | 82.8 | 2.447 | 0.293 | 0.313 | 1.3 | 7.4 | 29.3 |
| 100 | 100.7 | 63.9 | 58.5 | 36.028 | 0.27 | 4.06 | 1.3 | 4.7 | 23.2 |
| 104.4 | 73.35 | 54.3 | 71.6 | 40.968 | 2.283 | 1.274 | 1.3 | 5.0 | 7.3 |
| 100.8 | 101.7 | 56.5 | 84 | 90.529 | 0.649 | 13.87 | 2.92 | 5.1 | 11.9 |
| 106 | 97.8 | 80 | 41.8 | 4.272 | 0.134 | 0.124 | 0.7 | 5.3 | 18.2 |
| 112.1 | 109.7 | 65.9 | 62.1 | 4.371 | 0.046 | 0.039 | 1.5 | 5.8 | 20.9 |
| 100.5 | 84.1 | 27.7 | 43.5 | 0.23 | 0.08 | 0.095 | 0.5 | 5.3 | 23.2 |
| 98.7 | 90.2 | 37.57 | 51.6 | 22.222 | 0.051 | 0.597 | 1.12 | 5.6 | 15.4 |
| 92.5 | 84.81 | 75.5 | 61.4 | 2.509 | 0.664 | 0.676 | 1.1 | 4.1 | 15.1 |
| 101.2 | 68.5 | 23.3 | 15.1 | 95.891 | 1.2 | 0.394 | 0.8 | 3.3 | 10.7 |
| 101.4 | 66.9 | 37.1 | 67 | 10.552 | 0.202 | 0.135 | 1.1 | 6.3 | 16.1 |
| 124.2 | 48 | 15.8 | 6 | 0.214 | 0.003 | 0.002 | 0.001 | 2.6 | 11.6 |
| 117 | 103.5 | 61 | 17.7 | 0.199 | 0.002 | 0.001 | 0.27 | 5.6 | 18.2 |
| 96.1 | 96 | 51.6 | 49.8 | 4.727 | 0.346 | 0.346 | 0.49 | 4.3 | 18.8 |
| 109.1 | 81.2 | 23.5 | 15.8 | 9.032 | 188 | 0.058 | 0.08 | 3.0 | 11.4 |
| 108.6 | 75.9 | 28.8 | 49.6 | 1.584 | 104 | 0.122 | 0.43 | 3.8 | 13.2 |
| 96.7 | 87 | 51.4 | 28.9 | 8.037 | 0.077 | 0.24 | 0.25 | 7.6 | 16.5 |

Source: The World Bank - 2013

The principal component analysis method is used and 26 countries' competitiveness of their cultural and creative industries including 12 developing countries and 16 developed countries are analyzed and compared, as well as categorized based on the result scores. The original data are firstly collated and standardized, then with the application of SPSS17.0 and the principal component analysis, the competitiveness of the 26 countries' CCIs will be each

Scored. Through this way, the major factors that influence the competitiveness of countries’

CCIs will be found and classified, which would help us get to know further information about the major factors that lead to the strong competitiveness of the U. S. cultural and creative industries.

Before using the factor analysis method, there are requirements that must be satisfied for the study. The Kaiser-Meryer-Olkin statistic is a Measure of Sampling Adequacy, it shows the summary of how small the correlations are, relative to the original correlation (Kaiser, 1970). The overall KMO is printed in the" KMO and Bartlett's Test" table of the Factor Output. Generally, principal components analysis requires that the KMO Measure of Sampling Adequacy be greater than 0.50. KMO statistic Kaiser (1974) recommends a bare minimum of 0.5 and that values below 0.60 as unacceptable, between 0.60 and 0.70 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great. For these data the value of this principal component analysis is 0.620, which is satisfied with the requirement and it is considered that the sample size is adequate for factor analysis. Besides, Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identify matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.01) of the significance level indicate that a factor analysis may be useful with the data. As shown in Table 5.2, the significance is 0.000, which is suitable for factor analysis.

Table 5.2: KMO and Bartlett’s Test

| KMO and Bartlett's Test | | |
| --- | --- | --- |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | .620 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 531.806 |
| df | 190 |
| Sig. | .000 |

Source: SPSS 17.0 by author

Through the principal component analysis of orthogonal rotation method, the rotated loading matrix is acquired. Using the output from iteration 1, there are five eigenvalues greater than 1.0. As shown in Table 5.3, the latent root criterion for number of factors to derive would indicate that there are five components to be extracted for these variables. The

Cumulative proportion of variance criteria can be met with five components to satisfy the criterion of explaining 70% of the total variance.

**Table** **5.3: Total Variance Explained**

Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 8.418 | 42.090 | 42.090 | 8.418 | 42.090 | 42.090 | 6.590 | 32.952 | 32.952 |
| 2 | 3.350 | 16.748 | 58.839 | 3.350 | 16.748 | 58.839 | 4.245 | 21.224 | 54.176 |
| 3 | 1.689 | 8.444 | 67.283 | 1.689 | 8.444 | 67.283 | 2.243 | 11.216 | 65.392 |
| 4 | 1.384 | 6.922 | 74.205 | 1.384 | 6.922 | 74.205 | 1.459 | 7.297 | 72.689 |
| 5 | 1.069 | 5.343 | 79.548 | 1.069 | 5.343 | 79.548 | 1.372 | 6.860 | 79.548 |
| 6 | .951 | 4.757 | 84.305 |  |  |  |  |  |  |
| 7 | .777 | 3.883 | 88.187 |  |  |  |  |  |  |
| 8 | .653 | 3.264 | 91.452 |  |  |  |  |  |  |
| 9 | .422 | 2.112 | 93.564 |  |  |  |  |  |  |
| 10 | .290 | 1.448 | 95.013 |  |  |  |  |  |  |
| 11 | .272 | 1.360 | 96.373 |  |  |  |  |  |  |
| 12 | .217 | 1.087 | 97.460 |  |  |  |  |  |  |
| 13 | .166 | .830 | 98.290 |  |  |  |  |  |  |
| 14 | .145 | .725 | 99.015 |  |  |  |  |  |  |
| 15 | .087 | .437 | 99.452 |  |  |  |  |  |  |
| 16 | .055 | .274 | 99.726 |  |  |  |  |  |  |
| 17 | .033 | .166 | 99.891 |  |  |  |  |  |  |
| 18 | .013 | .063 | 99.955 |  |  |  |  |  |  |
| 19 | .008 | .042 | 99.997 |  |  |  |  |  |  |
| 20 | .001 | .003 | 100.000 |  |  |  |  |  |  |

Extraction Method: Principal Component Analysis Source: SPSS 17.0 by author

Table 5.4 is the rotated component matrix. Given the five common factors, SPSS software is used to obtain factor loading matrix. The matrix contains the loadings of each variable onto each factor.

Table 5.4: Component Score Coefficient Matrix

|  | Component | | | | |
| --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |
| Z-score: Mean years of schooling | .822 | .200 | .156 | -.045 | -.107 |
| Z-score: Human Development Index | .943 | .196 | .200 | -.093 | -.061 |
| Z-score: Education Index | .758 | .064 | .359 | -.073 | .009 |
| Z-score: GDP per capita | .849 | .317 | .020 | -.081 | -.045 |
| Z-score: GDP per capita average annual growth rate | -.495 | -.145 | -.250 | .441 | -.463 |
| Z-score: Household final consumption expenditure (% of GDP) | -.276 | .065 | .179 | -.075 | .772 |
| Z-score: Income index | .888 | .201 | .086 | -.238 | -.096 |
| Z-score: International tourism, receipts (billion dollar) | .230 | .954 | -.012 | -.023 | .014 |
| Z-score: International travel revenue(billion dollar) | .224 | .954 | -.006 | -.030 | .009 |
| Z-score: International tourism, numbers of arrivals(million) | .147 | .759 | .088 | .012 | -.071 |
| Z-score: School enrollment, primary (% gross) | -.286 | .013 | -.079 | .886 | -.003 |
| Z-score: School enrollment, secondary (% gross) | .506 | .005 | .566 | .483 | .095 |
| Z-score: School enrollment, tertiary (% gross) | .734 | .112 | .221 | -.120 | -.240 |
| Z-score: Internet users per 100 | .911 | .206 | .117 | -.088 | -.024 |
| Z-score: Information and communication technology (ICT) service exports (billion dollar) | .144 | .825 | -.148 | .012 | -.095 |
| Z-score: Personal, cultural and reinnovational services export (billion dollar) | -.193 | -.160 | -.395 | .155 | .619 |
| Z-score: Charges for the use of intellectual property, payments (billion dollar) | .234 | .836 | -.062 | -.050 | .118 |
| Z-score: Government research and development expenditure (% GDP) | .789 | .294 | -.184 | .115 | -.229 |
| Z-score: Government expenditure on education (% of GDP) | .178 | .050 | .823 | -.295 | -.036 |
| Z-score: Tax revenue % of GDP | .151 | -.225 | .811 | .104 | .051 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in seven iterations. Source: SPSS 17.0 by author

To conduct a comprehensive evaluation on these 26 countries' cultural and creative

Industries, the scores of the five common factors are calculated. As shown in Table 5.4, after rotation of the coefficient matrix, the original data matrix and the rotated factor matrix can be used in the calculation of each country's principal component, which is the scores of Fi

（I=1,2,3,4,5）in Table 5.5.

Table 5.5: Scores of Fi of the 26 Countries

| Countries | F1 | F2 | F3 | F4 | F5 |
| --- | --- | --- | --- | --- | --- |
| China | 5688.17024 | 2297.883581 | 193.033017 | -383.538069 | -282.216921 |
| U.S. | 45168.87247 | 17413.62681 | 1133.46462 | -4185.034171 | -2342.08911 |
| Japan | 33546.86088 | 12580.49587 | 877.075371 | -3066.081581 | -1730.93785 |
| Korea | 20425.66584 | 7655.103033 | 578.571178 | -1817.678568 | -1054.655062 |
| Singapore | 45077.04715 | 16874.08288 | 1123.750895 | -4204.286418 | -2376.794461 |
| UK | 33337.70378 | 12614.91642 | 873.350941 | -3040.646836 | -1722.093422 |
| Canada | 44200.06659 | 16554.16091 | 1130.795218 | -4082.059278 | -2301.895665 |
| France | 36692.82545 | 13896.79482 | 963.866816 | -3353.059757 | -1902.411014 |
| Australia | 38512.11597 | 14416.04539 | 1027.338889 | -3508.500967 | -1999.73134 |
| New Zealand | 34525.84288 | 12870.32144 | 937.76134 | -3152.124229 | -1787.590521 |
| Italy | 28944.1615 | 10921.55354 | 781.798549 | -2628.788623 | -1491.580517 |
| Spain | 25120.10718 | 9542.518219 | 661.083756 | -2275.1279 | -1291.439332 |
| Germany | 37499.2273 | 14161.05447 | 964.221315 | -3442.461655 | -1949.45984 |
| Ukraine | 3395.444406 | 1278.693262 | 181.863334 | -189.818051 | -132.167868 |
| Portugal | 17675.73941 | 6609.730931 | 523.149071 | -1540.671045 | -887.501196 |
| Mexico | 9608.38512 | 3616.929609 | 314.104148 | -791.992531 | -454.751274 |
| Brazil | 9396.236547 | 3529.04032 | 303.20164 | -770.224413 | -449.986568 |
| Russia | 12852.46037 | 4825.040635 | 392.389247 | -1108.52848 | -648.3735 |
| India | 1248.929126 | 577.114233 | 73.965076 | 1.305116 | -25.918282 |
| Malaysia | 8960.087006 | 3393.911963 | 283.083345 | -736.839945 | -438.728951 |
| Cambodia | 853.575151 | 336.981756 | 68.496715 | 44.675121 | 14.734395 |
| Mongolia | 3368.739195 | 1243.958367 | 169.816712 | -169.162533 | -147.420679 |
| Romania | 7426.926575 | 2769.981328 | 269.126015 | -581.682308 | -340.678395 |
| Indonesia | 2972.64553 | 1120.455735 | 61.816824 | -125.535999 | 2.303798 |
| Egypt | 2690.752977 | 1016.969235 | 97.908459 | -117.525887 | -15.680242 |
| Thailand | 5088.157794 | 1970.742732 | 204.49114 | -363.251101 | -230.300247 |

Source: SPSS 17.0 by author

Through the principal component analysis on the five common factors, distributing the

Value of weight based on the relative variance contribution and calculating each of the country's principal component scores, the final scores of each principal component is obtained in this study, which is the evaluation of each country's international competitiveness level of its cultural and creative industries. The calculation formula is as below:

F=(0.4209\*F1+0.16748\*F2+0.08444\*F3+0.06922\*F4+0.05343\*F5 /0.79548

## **5.4** **Conclusion**

By calculating each principal component, the process of its contribution ratio, and the ratio of the cumulative contribution rate, the value of F shows each country's competitiveness in its CCIs with specific data. The greater the F is, the country's CCIs is more competitive. The ranking of the 26 countries' competitiveness of their CCIs is presented in Table 5.6.

**Table** **5.6: Ranking of the 26 Countries’Competitiveness of CCIs**

| Countries | Scores | Rankings | Countries | Scores | Rankings |
| --- | --- | --- | --- | --- | --- |
| U.S. | 27164.60 | 1 | Russia | 7717.93 | 14 |
| Singapore | 26997.38 | 2 | Mexico | 5779.32 | 15 |
| Canada | 26482.42 | 3 | Brazil | 5649.63 | 16 |
| Australia | 23081.9 | 4 | Malaysia | 5391.93 | 17 |
| Germany | 22494.71 | 5 | Romania | 4467.95 | 18 |
| France | 22023.29 | 6 | China | 3461.65 | 19 |
| New Zealand | 20683.02 | 7 | Thailand | 3081.77 | 20 |
| Japan | 20108.86 | 8 | Ukraine | 2059.70 | 21 |
| UK | 20007.85 | 9 | Mongolia | 2037.76 | 22 |
| Italy | 17368.25 | 10 | Indonesia | 1804.56 | 23 |
| Spain | 15085.95 | 11 | Egypt | 1636.94 | 24 |
| Korea | 12251.63 | 12 | India | 788.56 | 25 |
| Portugal | 10605.96 | 13 | Cambodia | 534.74 | 26 |

Source: sorted by author

With the use of principal component analysis, the target countries' international competitiveness of their CCIs have been quantified and ranked, which can be categorized into three types as presented in Table 5.7. U. S., Singapore and Canada are in the first rank with scores ranging from 25,000 to 30,000, which means these countries' CCIs are of the strongest

Competitive advantage among the 26 countries. Australia, Germany, France, New Zealand, Japan, UK, Italy, Spain, Korea, and Portugal are in the second rank with score ranging from 10,000 to 25,000 regarding to their CCIs. While the rest of developing countries such as Russia, Mexico, Brazil, Malaysia, Romania, China are of low competitive advantages in their cultural and creative industries.

Table 5.7: Category of the 26 Countries’Competitiveness of CCIs

| Category | Score range | Country | Number |
| --- | --- | --- | --- |
| 1 | （25000, 30000） | U.S., Singapore, Canada | 3 |
| 2 | （10000, 25000） | Australia, Germany, France, New Zealand, Japan,  UK, Italy, Spain, Korea, Portugal | 10 |
| 3 | （0, 10000） | Russia, Mexico, Brazil, Malaysia, Romania,  China, Thailand, Ukraine, Mongolia, Indonesia, Egypt, India, Cambodia | 13 |

Source: sorted by author

From Table 5.7 it is obvious that the international competitiveness of CCIs can be categorized into three different kinds. The developed countries, new industrial economy and the developing countries are ranging from the high score range to the low one. The United States, as the largest empire of political, economical, and cultural power, ranks the top one with absolute advantages in the cultural and creative industries. While developing countries such as China, is ranked in the category three, along with the other BRICS countries.

#### **Chapter Six Conclusion**

According to the quantitative analysis, China has resourseful culture with thousand years of history, but the Chinese cultural industry is newly developed since the begining of the 21st century. The whole competitiveness of the Chinese CCIs is not strong enough to compete with developed countries yet. With the purpose of developing Chinese CCIs, China have to combine its own characteristics with the successful experience learnt from the U. S. CCIs so as to transform into a strong cultural industrial giant. With regard of this, this thesis analyzes the U. S. CCIs and provides advice to the Chinese CCIs.

## **6.1** **Analysis of the U. S. CCIs competitiveness**

With the above analysis, factors that influence the competitiveness of the U. S. cultural industries are analyzed from six aspects, including political, economic, social, technology, environmental and legal.

### **6.1.1** **Political factor**

The U. S. has been well-known in advocating free market economy and market orientation. Unlike many countries, there is no cultural department or administrative agency in the U. S. government. The U. S. CCIs are in charge by civil institutions, such as the film censorship system. With the improvement of technologies, cable and satellite television, the

U. S. federal relaxed its restriction on radio and television industries even further so as to ensure the free development of the CCIs.

Meanwhile, the federal government keeps making great efforts in protecting intellectual property rights by continuously adapting the copyright law and providing financial supports for the CCIs, as well as technologies consultant and trade services. For instance, the U. S.

Department of Commerce has established a specialized international data library for cultural enterprises, providing industrial and trade information of nearly 230 countries covering 120 industries and providing with services and trade supports; the federal government also sets up an international communication training and management group, specifically finances with more than one billion dollar for cultural exchanges and coordination.

In addition, with non-profitable and profitable aims, many associations, foundations, and social institutions involving in the CCIs are connections between government and cultural enterprises, as a service extension of the government functions.

The U. S. government's another important initiatives is to distinguish the profitable and non-profitable cultural organizations, and provide them with funds and favorable taxation policy. Since 1965, the federal government established many independent institutions such as the Committee of Humanities and Arts, Native American Arts and Cultures Foundation, the Committee on Archives, Libraries, and Museums. The federal government finances them with less than 20% of the total budget and encourages social supports by taxation preference. Each year, the federal government provides about $1.1 billion to the CCIs, while state governments and local governments, as well as local enterprises provide $5 billion to the local cultural industries. In addition, the federal government has stopped taxing the non-profitable publishers and offered them with financial help. In 2009, more than 40 states reduced tax from five percent to 30% on the film and television industries. From 2005 to 2010, the tax reduction by the U. S. state governments and municipal governments reached to

$690 million and the tax income increased to $27 billion in the same period. All these efforts are contribution to the booming of the U. S. CCIs and maximization of the social capitals.

### **6.1.2** **Economic factor**

The capital resource is one of the reasons that the American CCIs can keep innovating and maintaining the international competitiveness. The investment usually comes from government, individuals and enterprises. Governmental funds only take small portion, most of the capitals are from individuals and enterprises. With the large size of its financial market

And large number of financial groups, the U. S. CCIs have the advantages of capitalization, human resource, and technologies that other economies are lack of. The financial supports from government usually take 15% of the total operation in the cultural organizations, and the investment on each single cultural projects is no more than 50%. After the economic crisis in 2008, the governmental funds have been downsized especially during the government budget debate, public museums and parks were shut down because of the budget deficit.

Therefore, most of the investment on cultural industries are from enterprises and individuals, and the investment rises every year. As the economic production and financial system integrating, many large financial groups are attracted by high value-added of the CCIs. With the resourceful funds, cultural industries are merging together with manufacturing, architecting and touring industries in order to develop the global value chain and go international. The prosperity and expansion of the American CCIs attracts numerous talents, artists, and managers, as well as brings the high-technologies and skills into the industries. In addition, stock market, securities are also necessary in acquiring investment for the cultural industries because of the liberalization and large economic potential of the U. S. economy.

### **6.1.3** **Social factor**

The great achievements made by the U. S. CCIs cannot live without the country's social cultural environment. The diverse value and strong cultural atmosphere are the key to the success of the U. S. CCIs. The U. S. has been a country of migrants for more than 200 years and kept absorbing different cultures and values into a" melting pot", which becomes the essence of the so called American cultures. As a nation of migrants, the United States' diverse cultures have contributed their own distinct" flavors" to American culture. As the third largest country in the world with a population of more than 315 million, the U. S. is the most culturally diverse country in the world. The various culture brought by migrants converge and interact into multi-cultures with uniqueness. The emphasis on" freedom"，“democracy" has deeply rooted in every single American's heart. They tend to satisfy their individual spirit needs by cultural consumption such as watching movies, going to the theme parks, playing

Computer games, and travelling. The consumption on cultural products and services are the major impetus of the U. S. CCIs, which also inspire thousands of innovative enterprises, such as Apple Inc., Google, who never stop in innovating and expanding the American value of life. What's more, the government and social institutions put great effort in establishing and assisting museums, art centers and libraries, which has nurtured the potential consumption of cultural and creative products. According to statistics, up to 2010, there are more than 50 universities engage in arts and culture education in the U. S. With the support of talent pool, the U. S. also attracts many overseas talents who are outstanding in CCIs so as to maintain its sustainability. Lastly, as the whole world is learning the western culture and English, the American CCIs not only enjoy favorable internal advantages but also benefit from the external environment.

### **6.1.4** **Technological factor**

As high technology, new media and computer science are widely applied in people's daily life, they gradually replaces the traditional ways of information distribution and changes people's life style. Compared with the traditional arts and opera performance, the shows adding techniques including sound, light, electronic are much more powerful and impressive. As for the movie industry, high-tech application leads the movie production into another golden age (the first golden age of movies was the 1930s in Hollywood). For years, with over

$500 billion annual income, Hollywood is still the leader in the global box office, and has created numerous miracles in global box office records. Computer science makes the Hollywood movies popular around the globe and guarantees high revenue of the box office. 3D (Three Dimension) movies and IMAX (Image Maximum) not only satisfy audiences' visual and audio sensations, but also presents the perfect combination of high-tech and movie making.

### **6.1.5** **Environmental factor**

The U. S. CCIs have formed into a value chain by utilizing capitals, human resources

And technologies. Industries such as television industry, movie industry, printing industry, art and performance industry, architecture industry, and advertising industry are all correlated and interactive. The value chain starts from cultural innovation, delivering, selling, operation, market needs, and reproduction. According to statistics, more than half of the revenues of Disney are earning from related brands selling. The core culture becomes the endless impetus for all the related and supporting industries.

### **6.1.6** **Legal factor**

One of the driving forces that generating the U. S. copyright industries as one of the fastest growing and most sustainable industries was the introduction of Copyright Law. The industries that rely on copyright are today an integral part of the U. S. economy, accounting for millions of jobs and contributing billions of dollars to the GDP. With the protection of copyright law, the U. S. music, movies, television shows, computer software, games, books and works of art could go international and keep competitive. As early as 1790, the U. S. announced and implemented the first Copyright Act, it became the earliest country which had conducted the intellectual property protection system. As the expansion of the U. S. economy, technology and social needs, the U. S. government has adapted the law and improve it in order to protect the country's cultural industries. After years of adjustments, the U. S. intellectual property system has gradually become the most detailed and widely-used law. In 1995, the Clinton Administration's Intellectual Property Working Group issued a report on *Intellectual Property and the National Information Infrastructure*. This report described copyright law's past adaptation to new technologies, identified the challenges of the digital environment, and make a number of recommendations for legislative changes. In 2010, the Secretary of Commerce created the Internet Policy Task Force to provide policy coordination across the Department of Commerce, and to conduct a comprehensive review of privacy policy, copyright, global free of information, and cyber security, and their respective relationships to innovation in the internet economy. With the coming up of Contract Law and Labor Law, the federal government has provided an external law system to protect every aspect of the

American copyright industries so as to improve its international competitiveness.

## **6.2** **Suggestions for China**

Based on the comparative study of the 26 countries' CCIs, developed countries including the U. S., Singapore, Canada, Australia, Germany, France, New Zealand, Japan, UK, Italy, Spain, Korea, Portugal are highly competitive in their CCIs, while developing countries like Russia, Mexico, Brazil, Malaysia, Romania, China, Thailand, Ukraine, Mongolia, Indonesia, Egypt, India, Cambodia are less competitive. According to Porter's diamond model, the competitiveness of a industry relies on five factors, the demand conditions, factor conditions, firm strategy, structure, and rivalry, government, related and supporting industries. One of the most critical factor for CCIs is innovation.

First of all, Chinese educational index and the expenditures on education by government of the developing countries are much lower than developed countries, which explains the low labor quality and the small numbers of qualified labor. The shortage of qualified labor talents largely impedes the growth of Chinese CCIs to go international. Therefore, long-term efforts must be taken into education and on-the-job training so as to increase our labor competitiveness; international exchange of talents or abroad training will also do help to the improvement of domestic labor quality. What's more, the higher level of education would definitely increase the demand of the cultural products and service, which would also stimulate the reform and innovation of education.

Secondly, cultural industries require a favorable outer environment–law and regulation protection. From the experience of the U. S. CCIs, it is obvious that a comprehensive and beneficial legal system is the guarantee of CCIs development, especially in the information era. Therefore, government should be highly careful in implementing related laws and regulation, as well as supporting local cultural enterprises with necessary assistance, either favorable policies or financial and consulting help.

From the Porter's diamond model, related and supporting industries are also one of the factors that influence the competitiveness of an industry. Apart from education, tourism

Industry, information industry, and technology industry are all critical and playing important role in supporting CCIs. Tourism not only propagandizes a country's international fame, but also roles as an impetus in facilitating international trade and service; while information and technology function such as media and platform, determining the industrial growth speed and width. With the support of the related industries, CCIs will be highly improved and able to compete in the international market. In regard of this, Chinese government has been putting effort in the financial support of culture-related technology and contributing in combining high-tech with culture elements, which can be seen from the government budget and related policies.

With over thousands of history, the essence of Chinese culture has been maintained and preserved. Similar to the U. S., China has diverse culture and much longer ancient history. With 56 different ethnic groups, all of the culture and customs interact and merge into an unique cultural system with China's own characteristics. From movies made by Hollywood, such as the animated movie Kongfu Panda with the promotion of Tai Chi philosophy and the animated movie Mulan based on Chinese ancient story, many movies contained Chinese culture became huge success and are very popular in the world. Therefore, traditional culture and arts should be brought into the global market with utmost effort, either through movies, books, conference, language schools, shows and performance, music and so forth. All of the resourceful cultural elements can be transformed into business products and service, which would help Chinese culture go abroad and generate huge influence when competing with foreign culture.

## **6.3** **Limitations and suggestions**

Due to limited time and experience, there are unavoidable limitations in this study. To begin with, as the CCIs cover lots of different sectors, there is difficulty in unifying and classifying all of the relative industries. Various countries and world organizations have large ranges of definitions and classifications on CCIs according to their own research purposes and research width.

The economic indicators included in this study might not be able to cover all the CCIs related indicators. Related issues like geography, consumer psychology and social classes are not included in this thesis.

Thirdly, countries included in the quantitative research are limited in numbers and types due to the difficulty in data collection and data processing. The data source coming from the year from 2012 to 2013, it lacks of the variation in vertical periods. What's more, the economic situations and local people's demand for cultural products vary in many different way, the empirical part of the study might not be able to explain the industrial changes for a long period.

As for the future study, the author recommends case studies with more detail information. Specific case study and environmental analysis would be suggestible. Qualitative study on the environment and industrial development will also be suggested.

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|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean year of schooling | HDI | Educational index | GDP per capita (US$) | GDP per capita average annual growth rate (%) | Household final consumption expenditure (% of GDP) | Income index | International tourism receipts (billion dollar) | International travel revenue (billion dollar) | International tourism, numbers of arrivals (million) |
| China | 7.5 | 0.699 | 0.851 | 6569.348 | 7.1 | 34 | 0.72 | 54.937 | 48.24 | 57.725 |
| U.S. | 13.3 | 0.937 | 0.968 | 52839.162 | 1.1 | 69 | 0.95 | 200.092 | 171.39 | 66.969 |
| Japan | 11.6 | 0.912 | 0.949 | 39321.185 | 1.7 | 61 | 0.89 | 16.197 | 14.9 | 6.79 |
| Korea | 11.6 | 0.909 | 0.998 | 23837.706 | 2.5 | 52 | 0.86 | 19.653 | 14.4 | 11.14 |
| Singapore | 10.1 | 0.895 | 0.913 | 52917.951 | 2.2 | 38 | 1 | 19.261 | 19.2 | 11.098 |
| UK | 9.4 | 0.875 | 0.957 | 39048.656 | 1.1 | 66 | 0.89 | 45.966 | 40.2 | 29.282 |
| Canada | 12.3 | 0.911 | 0.991 | 51871.213 | 0.8 | 56 | 0.91 | 20.696 | 17.61 | 16.344 |
| France | 10.6 | 0.893 | 0.968 | 42990.854 | -0.3 | 57 | 0.89 | 63.53 | 56.69 | 83.013 |
| Australia | 12 | 0.938 | 0.993 | 45138.99 | 0.9 | 55 | 0.91 | 34.13 | 31.6 | 6.146 |
| New Zealand | 11.6 | 0.919 | 0.993 | 40465.267 | 1.6 | 58 | 0.87 | 5.467 | 5.405 | 2.473 |
| Italy | 10.1 | 0.881 | 0.965 | 33909.123 | -2.3 | 60 | 0.87 | 43.036 | 41.9 | 46.36 |
| Spain | 10.4 | 0.885 | 0.975 | 29408.933 | -1 | 59 | 0.87 | 63.198 | 60.25 | 52.178 |
| Germany | 12.2 | 0.92 | 0.954 | 43952.005 | 0.2 | 57 | 0.92 | 51.581 | 41.27 | 30.411 |
| Ukraine | 11.3 | 0.74 | 0.96 | 3861.697 | 2.1 | 73 | 0.67 | 5.988 | 5.13 | 23.013 |
| Portugal | 7.7 | 0.816 | 0.929 | 20663.231 | -0.9 | 65 | 0.83 | 14.559 | 12.35 | 7.503 |

**Appendix I Original data collection**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean year of schooling | HDI | Educational index | GDP per capita (US$) | GDP per capita average annual growth rate (%) | Household final consumption expenditure (% of GDP) | Income index | International tourism receipts (billion dollar) | International travel revenue (billion dollar) | International tourism, numbers of arrivals (million) |
| Mexico | 8.5 | 0.775 | 0.886 | 11224.484 | -0.2 | 67 | 0.77 | 13.32 | 13.22 | 23.403 |
| Brazil | 7.2 | 0.73 | 0.891 | 10957.613 | 1.6 | 63 | 0.75 | 6.89 | 6.71 | 5.677 |
| Russia | 11.7 | 0.788 | 0.933 | 14973.481 | 1.1 | 52 | 0.82 | 17.876 | 12.24 | 28.177 |
| India | 4.4 | 0.554 | 0.45 | 1414.11 | 3.7 | 62 | 0.6 | 18.34 | 17.927 | 6.578 |
| Malaysia | 9.5 | 0.769 | 0.851 | 10428.572 | 3 | 51 | 0.81 | 20.251 | 20.1 | 25.033 |
| Cambodia | 7.3 | 0.543 | 0.704 | 1015.284 | 5.5 | 82 | 0.5 | 2 | 1.788 | 3.584 |
| Mongolia | 8.3 | 0.675 | 0.722 | 3880.568 | 10.1 | 49 | 0.67 | 0.488 | 0.369 | 0.476 |
| Romania | 10.4 | 0.786 | 0.915 | 8630.186 | 4.1 | 72 | 0.87 | 1.919 | 1.86 | 7.937 |
| Indonesia | 5.8 | 0.629 | 0.84 | 3498.505 | 4.5 | 59 | 0.68 | 9.463 | 9.33 | 8.044 |
| Egypt | 6.4 | 0.662 | 0.697 | 3113.841 | 0.4 | 81 | 0.7 | 10.823 | 7.24 | 11.196 |
| Thailand | 6.6 | 0.69 | 0.999 | 5878.751 | 1.4 | 54 | 0.74 | 37.74 | 33.827 | 22.354 |

Source: The World Bank

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | School enrolment of primary education (% gross) | School of enrolment of secondary education (% gross) | School enrolmen t, tertiary (% gross) | Internet user per 100 | Information and communication technology (ICT) service exports | Personal, cultural and recreation services export (billion dollar) | Charge for the use of intellectual property, payments (billion dollar) | Government research and development expenditure (% of GDP) | Government expenditure on education (% of GDP) | Tax revenue (% of GDP) |
| China | 127.9 | 89 | 27 | 45.8 | 68.54 | 0.156 | 1.044 | 1.98 | 1.9 | 11.1 |
| U.S. | 98.8 | 94 | 95.3 | 84.2 | 143.962 | 0.76 | 124.182 | 2.8 | 5.4 | 10.5 |
| Japan | 102.6 | 101.8 | 59.9 | 86.3 | 27.794 | 0.158 | 31.437 | 3.3 | 3.8 | 10.1 |
| Korea | 101.4 | 96.7 | 100.8 | 84.8 | 23.929 | 0.516 | 4.108 | 4.04 | 5.1 | 14.4 |
| Singapore | 91.06 | 44.6 | 93.2 | 73 | 28.532 | 0.516 | 1.674 | 2.1 | 3.3 | 14 |
| UK | 106.9 | 97.4 | 61.2 | 89.8 | 114.08 | 5.466 | 12.458 | 1.8 | 5.6 | 26.9 |
| Canada | 101.4 | 102.3 | 58.9 | 85.8 | 34.633 | 1.991 | 3.711 | 1.73 | 5 | 11.5 |
| France | 108 | 109.9 | 57.1 | 81.9 | 65.542 | 6.006 | 12.407 | 2.26 | 5.9 | 22 |
| Australia | 119.2 | 133 | 82.3 | 83 | 9.827 | 0.788 | 0.86 | 2.39 | 4.43 | 21.4 |
| New Zealand | 100.1 | 119 | 80 | 82.8 | 2.447 | 0.293 | 0.313 | 1.3 | 7.4 | 29.3 |
| Italy | 100 | 100.7 | 63.9 | 58.5 | 36.028 | 0.27 | 4.06 | 1.3 | 4.7 | 23.2 |
| Spain | 104.4 | 73.35 | 54.3 | 71.6 | 40.968 | 2.283 | 1.274 | 1.3 | 5 | 7.3 |
| Germany | 100.8 | 101.7 | 56.5 | 84 | 90.529 | 0.649 | 13.87 | 2.92 | 5.1 | 11.9 |
| Ukraine | 106 | 97.8 | 80 | 41.8 | 4.272 | 0.134 | 0.124 | 0.7 | 5.3 | 18.2 |
| Portugal | 112.1 | 109.7 | 65.9 | 62.1 | 4.371 | 0.046 | 0.039 | 1.5 | 5.8 | 20.9 |
| Mexico | 100.5 | 84.1 | 27.7 | 43.5 | 0.23 | 0.08 | 0.095 | 0.5 | 5.3 | 23.2 |
| Brazil | 98.7 | 90.2 | 37.57 | 51.6 | 22.222 | 0.051 | 0.597 | 1.12 | 5.6 | 15.4 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | School enrolment of primary education (% gross) | School of enrolment of secondary education (% gross) | School enrolmen t, tertiary (% gross) | Internet user per 100 | Information and communication technology (ICT) service exports | Personal, cultural and recreation services export (billion dollar) | Charge for the use of intellectual property, payments (billion dollar) | Government research and development expenditure (% of GDP) | Government expenditure on education (% of GDP) | Tax revenue (% of GDP) |
| Russia | 92.5 | 84.81 | 75.5 | 61.4 | 2.509 | 0.664 | 0.676 | 1.1 | 4.1 | 15.1 |
| India | 101.2 | 68.5 | 23.3 | 15.1 | 95.891 | 1.2 | 0.394 | 0.8 | 3.3 | 10.7 |
| Malaysia | 101.4 | 66.9 | 37.1 | 67 | 10.552 | 0.202 | 0.135 | 1.1 | 6.3 | 16.1 |
| Cambodia | 124.2 | 48 | 15.8 | 6 | 0.214 | 0.003 | 0.002 | 0.001 | 2.6 | 11.6 |
| Mongolia | 117 | 103.5 | 61 | 17.7 | 0.199 | 0.002 | 0.001 | 0.27 | 5.6 | 18.2 |
| Romania | 96.1 | 96 | 51.6 | 49.8 | 4.727 | 0.346 | 0.346 | 0.49 | 4.3 | 18.8 |
| Indonesia | 109.1 | 81.2 | 23.5 | 15.8 | 9.032 | 188 | 0.058 | 0.08 | 3 | 11.4 |
| Egypt | 108.6 | 75.9 | 28.8 | 49.6 | 1.584 | 104 | 0.122 | 0.43 | 3.8 | 13.2 |
| Thailand | 96.7 | 87 | 51.4 | 28.9 | 8.037 | 0.077 | 0.24 | 0.25 | 7.6 | 16.5 |

Source: The World Bank