

# Research on the Interactive Development of Venture Capital, Scientific and Technological Innovation and Urban Cultural and Creative Industries

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**Abstract:** *Under the background of "new normal" and "innovation-driven", traditional industries cannot meet the requirements of modern urban development. The modern manufacturing and service industry with high added value has become the main part of the city economy, the creative production is separated from it, and combined with culture, and gradually developed into a new industrial form. As the pillar industry of China's national economic, cultural and creative industries not only bear the mission of cultural heritage, but also shoulder the task of economic restructuring and upgrading. This article describes the importance of cultural and creative industries for the transformation of economic development mode and the establishment of new economy. Based on the analysis of the relationship between cultural creative industry and technological innovation, venture capital, the article gives the solution and countermeasures to promote the development of city.*

**Keywords:** cultural and creative industries; venture capital; Scientific and technological innovation; the interactive development

## 1. Introduction

The concept of "creative industry" was put forward in Britain in 1998, which is regarded as the beginning of the transformation of cities from traditional "industrial economy" to modern "cultural economy" and "creative economy". As the mature and universally recognized form of urban economy, cultural and creative industries are the result of the integration of "scientific and technological innovation" and "cultural innovation". Although different countries have different forms and contents of cultural and creative industries, it is generally believed that cultural and creative industries are emerging industries driven by "innovation" and integrated with culture, science and technology, finance and other elements. It can promote the upgrading of traditional industries, optimize the industrial structure and realize the transformation of economic development mode by virtue of its unique industrial value orientation, wide coverage and rapid growth mode [1].

With the rise and development of knowledge-based economy, cultural and creative industries have become an important force to promote urban economic growth and realize transformation and upgrading, and their scale and degree have become the important indicator to measure the comprehensive competitiveness of cities and the important symbol of urban innovation and development. The development of cultural and creative industries is limited by the development environment of cities. Cultural innovation is the primary factor affecting cultural and creative industries, and it needs the support of scientific and technological innovation. But without financial innovation, there will be a "lock-in effect" in scientific and technological innovation; without scientific and technological innovation, financial innovation will eventually become a "rice-free meal". Financial innovation has become the key to the development of cultural and creative industries. In a sense, the more perfect the financial system, the greater the possibility of success of innovation activities, and the greater the role of promoting economic growth [2]. Moreover, the

financial market has the strong ability to collect information, which can effectively discriminate new products, new technologies and so on, thereby reducing business risk [3]. Venture capital, as the new form of innovation system in the financial market, coincides with the high-risk characteristics of urban cultural and creative industries due to the large amount of capital required, long operating cycle and high uncertainty of market demand. It can effectively overcome the difficulties which cannot be raised through traditional channels, such as banks [4]. Therefore, the interactive development of venture capital, scientific and technological innovation, and cultural and creative industries is of great theoretical and practical significance to the construction and transformation and upgrading of urban innovative economy.

## 2. Cultural and Creative Industries are Important Ways to Develop Innovative Economy

After the financial crisis in 2008, countries around the world step into economic adjustment period, including China, especially after 2012, the era of relying on low-cost labor and high energy input is gone, economic development needs new ideas. The chairman Xi Jinping put forward the concept of "new normal" during his visit to Henan Province in May 2014, and clearly pointed out that "new normal" is the inevitable reflection of the stages of China's economic development, and is not to be transferred by the will of people. At the same time, according to Porter's theory of transition of economic development stages, the economic development of all countries in the world will generally go through four stages in turn: factor-driven, investment-driven, innovation-driven and wealth-driven. The history of economic development in the United States, Germany and other countries also shows that innovation will be the key driving force for economic restructuring and transformation when factor-driven and investment-driven cannot meet the sustainable development of the economy. To adapt to the new normal of China's economic

development, the key point are to form the new driving force for development; highlight innovation-driven; promote comprehensive innovation; and let innovation become the new engine for the development.

Since the reform and opening up, the proportion of China's urban economy in the national economy has continued to rise, and the degree of concentration is still further improved, science and technology, talent and capital are accelerating the influx of factors into the city. However, a series of problems have emerged in China's urban economic development, mainly manifested in three aspects: resource-oriented development model leads to excessive consumption of resources and serious environmental pollution in China; labor-oriented development model leads to low scientific and technological content of Chinese products, low prices, difficult to form a long-term advantage in international competition; export-oriented development model leads to China's excessive dependence on exports, vulnerable to external economic shocks. These problems affect the improvement of the overall economic benefits of China, and are not conducive to sustainable economic development. It is urgent to change the mode of development and optimize the urban economic structure. The city is an important carrier of social and economic development, and also the source of scientific and cultural innovation. Under the background of "innovation-driven", to enhance the vitality of urban economic development and achieve the goal of innovative urban construction, we should build sustained economic growth and mode transformation on the basis of scientific and cultural innovation. As the new form of industrial organization and the new economic form, cultural and creative industries are the new engine and power source of urban economic growth, and have become the important indicator to measure the performance of urban economic development. They are also an important way of urban innovative economic development in developed countries [5]. Although China's cultural and creative industries have shown a high-speed growth in the development of urban industries in recent years, due to the relatively short development time of cultural and creative industries in China, most cities lack the experience to guide the development of cultural and creative industries, both the actual development and theoretical research are in a chaotic state. Therefore, when we see that cultural and creative industries play the strategic role in guiding the development of urban innovative economy, we should also clearly understand the unfavorable factors for its future development.

### 2.1 Lack of the integration of technology and culture

In the process of the development of cultural and creative industries, adding creativity to goods and services is the only way to make it a brand-new cultural product and bringing different values to consumers, can we excavate the huge value-added effect of culture. Compared with developed countries such as Britain and the United States, There are rich human and natural cultural resources in China, but China has not established a linkage mechanism between cultural and creative industries and scientific and technological innovation, and there are some outstanding problems, such as unreasonable organizational structure, unscientific management mechanism, inflexible incentive mechanism,

inadequate investment in cultural and technological. The pillar function of cultural and creative industries in the development of innovative economy is difficult to reflect. The development of cultural and creative industries has attracted more and more attention from all countries and has risen to the level of national strategy, it is necessary to strengthen the application of scientific and technological innovation in the development of cultural and creative industries as well as enhance the overall innovation ability of cultural and creative industries.

### 2.2 Lack of the integration of capital and culture

In recent years, China has given huge financial support and policy guidance to cultural and creative industries both at the national level and the urban level. However, in the turbulent and changeable market competition, financial funds cannot support the needs of the entire cultural and creative industries. The shortage of funds is still an important bottleneck in the development of cultural and creative industries. Such problems are related to the policy environment and market mechanism of the development of China's cultural and creative industries, which restrict the effective docking of cultural and creative resources with capital, but mostly due to the development of cultural and creative industries themselves. Like other types of scientific and technological innovation enterprises, due to the large amount of investment, long operating cycle, and great social benefits, the future returns of cultural and creative enterprises have great uncertainty, making it difficult to achieve financing objectives. Moreover, the core value of cultural and creative goods and services is knowledge, which is intangible, difficult to value and easy to replicate. This further aggravates the uncertainty of the returns of cultural and creative industries, and makes it more difficult to obtain financial support from general financial institutions and individuals.

### 3. Scientific and technological innovation is the core driving force to support the development of cultural and creative industries.

Under the new normal, cultural and creative industries have become an important soft power for cities all over the world to participate in global competition, and also a magic weapon for countries to win economic hegemony in the 21st century. Therefore, many developed countries are positioning them as strategic emerging industries. However, in the development of cities with similar conditions, the development of cultural and creative industries is quite different, which is related to the great difference in the construction of scientific and technological innovation system. In the process of promoting the development of cultural and creative industries, developed countries attach great importance to the application of science and technology in industrial development, and constantly promote industrial value-added, competitiveness and scale of development through scientific and technological innovation. Scientific and technological innovation is an important means to enhance the competitiveness of countries and cities and promote economic transformation and development.

The evolution of cultural and creative industries in the developed countries also shows the steps of their development are inseparable from technological innovation. With the active publicity and promotion of the government, China's cultural and technological integration has also achieved good momentum of development. However, the rise of cultural and creative industries in China is relatively short, many people do not understand the law of their development, especially the role of science and technology in the development of cultural and creative industries. Therefore, it is not clear how to promote the application of science and technology in cultural and creative industries. The important factor is that the cultural system and the scientific and technological system are separated, the competent departments are independent, and even the departments under the system will have difficulties in synergy due to the division of sections and cross-functional, and cross-sectoral synergy is even more difficult to form an effective synergy. The lack of a smooth communication channel between culture and science and technology makes it difficult to form a unified and efficient industrial integration mechanism, which restricts the development and construction of cultural and creative industries.

#### **4. Venture capital is the key factor to promote technological innovation and promote the development of cultural and creative industries.**

Throughout the history of mankind, every great industrial revolution began with technological innovation and succeeded in financial innovation. As the carrier of financial innovation, financial market can effectively disperse the risks of scientific and technological innovation, promote the development of science and technology, and promote economic growth [6]. As the knowledge-intensive industry, cultural and creative industries are the deep integration of science and technology and culture. The key element of cultural and creative industries is the new technology. Without technological breakthroughs and development, it is impossible to talk about creativity and the great development of industries. At the same time, it is the capital-intensive industry, and its healthy development needs adequate financial support. At present, the development of China's cultural and creative industries mainly depends on the central and local financial investment, although private capital has participated, but both the total amount of investment and investment areas are limited. It can be considered that without perfect investment and financing system support, it is difficult to cultivate a complete and mature cultural and creative industry. Therefore, it is urgent to introduce innovative financial methods which are different from the traditional industrial financing mechanism to realize the benign docking of cultural and creative industries and financial capital. As the new financial innovation model, venture capital has been widely recognized by all countries in the world for its great promotion to technological innovation, economic development and industrial transformation and upgrading, and actively guides its participation in the development of strategic emerging industries. At the same time, as the financial intermediary, venture capital uses its special operating mechanism and incentive mechanism to raise funds from the owners of funds in a private way, support the financing of

high-risk and high-yield enterprises in the form of equity investment, and provide value-added management services to enhance the overall value of enterprises. This is consistent with the knowledge-intensive and capital-intensive characteristics of cultural and creative industries.

#### **4.1 Venture capital has the financing support effect to achieve effective capital supply in cultural and creative industries**

The developing time of China's cultural and creative industries is relatively short, and there is a significant gap between China and other countries, whether the scale of industry development or the depth of industry development. It is related to national policies, planning, cultural preferences, but more importantly, differences in financing and tax support. The core of the development of cultural and creative industries is the technological innovation and application in cultural goods and services. It has the characteristics of large capital demand, long investment return period and difficult valuation. Therefore, the commercial bank lending and financing are reluctant to participate too much, and the government financial funds are difficult to meet its development needs due to the total amount of restrictions. Venture capital can provide capital that other financing methods are unwilling to provide. With its unique "finance-investment-management-retreat" mechanism, venture capital can effectively disperse the uncertainty and high risk of the development of cultural and creative industries, and coordinate the production of creative products and services through efficient value-added management services to achieve cultural and creative industries and capital. Effective market docking, especially for those startups and SMEs in urgent need of financial support to provide a flexible, efficient and stable source of funding, can effectively promote the development of cultural and creative industries.

#### **4.2 Venture capital has the innovative support effect to realize the effective technological support of cultural and creative industries**

Creativity, as the core of cultural and creative industries, needs a variety of resources, policies and environmental conditions to support it from its emergence, exploration, application to commercialization and industrialization. Among them, technological innovation is the direct power source of its development, playing an important role in promoting. The United States, Britain, South Korea and other developed countries attach great importance to the role of science and technology in the development of cultural and creative industries. While science and technology continue to give cultural creativity more new connotations and expand the space for the development of cultural and creative industries, it also creates risks that traditional financial institutions and individual investors cannot bear. As the special way of equity investment, venture capital can reduce the risk of scientific and technological innovation through its unique risk prevention and incentive and restraint mechanism. At the same time, it can also give more guidance to cultural and creative enterprises by the rich management experience and extensive channel relationship of venture capitalists. In a sense, venture capital not only realizes the support for technological innovation of

cultural and creative industries, but also reduces the uncertainty of investment, forming the unity of financing efficiency and investment efficiency.

## 5. Reflections on promoting the development of urban cultural and creative industries: "3+2" industrial development ecosystem

As the new industry, the most direct manifestation of cultural and creative industries is the continuous innovation of cultural forms and contents, which cannot be separated from the support of scientific and technological innovation and financial innovation. The market plays the decisive role in the "innovation-driven", but it may also lead to speculation, market failure and lack of innovation. Therefore, giving full play to the government's regulatory functions and building the sound ecological system of cultural and creative industries can combine with the urban transformation and development, at the same time, it can further strengthen the driving force of urban innovation, promote the integration of scientific and technological innovation and financial innovation, and accelerate the overall transformation and development of urban economy [7].

### 5.1 Creating the "three innovation" base of "cultural innovation + technological innovation + financial innovation"

Culture is the foundation of cultural and creative industries. Innovation is the soul of the development of cultural and creative industries. As the power source of cultural innovation, technology and finance are two important factors that affect the development of cultural and creative industries. Cultural innovation proposes what to do, scientific and technological innovation proposes how to do, and financial innovation proposes how to integrate the two realistically to form a symbiotic, interactive and synergistic unity. Therefore, to build a cultural innovation base as the center of the "three creations" base, scientific and technological innovation base and financial innovation base as the two wings of the "three creations" base, the three complement each other, promote each other, support each other, will be the current China's feasible program to promote the development of cultural and creative industries. Specifically, the scientific and technological innovation base is composed of scientific research institutes and universities which carry the function of cultural innovation, and it is a comprehensive creative culture incubator which integrates the functions of research and development of cultural products, trade of technological property rights and display of achievements. The financial innovation base is composed of the capital operation organization which carries the financing function of the cultural enterprise, centering on the venture investment enterprise, and integrating the assets appraisal enterprise, the science and technology guarantee enterprise and the science and technology loan bank.

### 5.2 Improving the "dual guidance" mechanism of "government guidance + market leading"

The development of cultural and creative industries cannot be

achieved overnight. The development of cultural and creative industries cannot be achieved without the support of the government. However, the government must comply with the objective law of the development of market economy when supporting cultural and creative industries. The government should adhere to the "double guidance" mechanism of "government guidance + market leading" to constantly improve the development model of cultural and creative industries, and guide the direction of cultural and creative industries. When the development of cultural and creative industries can be ordered and stable under the guidance of the market, the government's work is to constantly improve the environment for industrial development, putting the social effects of industrial development in the first place; otherwise, when the cultural and creative industries appear "market failure", the government takes timely measures to make up for market defects and strengthen supervision. Only by combining "government guidance" with "market guidance" and realizing the timely transformation of their functions can China promote the long-term, stable, healthy and sustainable growth of cultural and creative industries.

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