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## RETRACTED: Research on Operating Modes and Strategies for Creative Enterprises in Jilin Province to Resolve Survival Crisis in the Big Data Age

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## Retraction

### **Retraction: Research on Operating Modes and Strategies for Creative Enterprises in Jilin Province to Resolve Survival Crisis in the Big Data Age (*IOP Conf. Ser.: Earth Environ. Sci.* **619** 012072)**

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The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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# Research on Operating Modes and Strategies for Creative Enterprises in Jilin Province to Resolve Survival Crisis in the Big Data Age

Yingying Ge, ChenYang, Yichao Zhang, Hua Zhu

Changchun University of Technology, Changchun, Jilin, China

(E-mail: 523125239@qq.com)

**ABSTRACT:** Creative enterprises are the backbone of the development of cultural and creative industries. This paper analyzes the current situation and crisis of creative enterprises in Jilin Province in the construction of cultural creativity and design service market in the era of big data, and puts forward some strategies to solve the crisis of enterprises so as to improve the core competitiveness of independent intellectual property rights of enterprises, to achieve the cultural and creative industry and other industrial integration and development, and accelerate the industrial transformation.

## 1 Introduction

With the advent of the big data era, the emergence of creative enterprises has led to an increase in people's cultural consumption and spiritual needs, which has led to the emergence of enterprises specializing in the production and supply of spiritual products in the social production system, these are what we call creative businesses. Creative enterprises are animation and game industry companies that provide design services through cultural creativity, such as Zhongyushuo, Fenglei, Zhihe, Mingnuo, etc., yuping craft, Baofeng paper-cut, Purple Magnolia as the representative of the arts and Crafts Industry Company. These are the backbone of creative enterprises in Jilin Province. But in Northeast China, the growth of creative companies is late. Many cities, including Beijing, Shanghai, Shenzhen and Hangzhou, have long regarded the development of creative industries as an entry point for transforming the mode of economic growth and optimizing the structure of enterprises, and have included them in the Eleventh Five-Year Plan, as a pillar industry to give priority support. Only in 2008 statistics show that in Beijing, Shanghai, Shenzhen and other places, the growth rate of cultural and creative industries has far exceeded the GDP growth rate, respectively, maintained 19% , 20% , 22% growth.<sup>(1)</sup> In 2014, the State Council put forward the "opinions of the State Council on promoting the integration and development of cultural creativity and design services with related industries" (hereinafter referred to as the opinions).<sup>(2)</sup> At present, the construction of cultural creativity and design service market has become an important trend of China's industrial development, which is of great significance to the research on the survival crisis resolution model and strategy of creative enterprises in Jilin Province.

## 2 General situation of creative enterprise market in Jilin Province

According to the classification of "cultural and related industries classification (2012)"<sup>(3)</sup>, the cultural creativity and design services provided by creative enterprises are divided into four categories: architectural design services, cultural software services, advertising services and professional design services. Among them, the specialized design service statistical caliber is too wide, this article does not

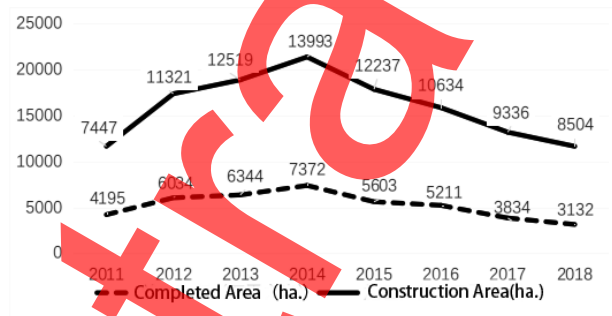


do the statistical analysis temporarily.

### 2.1 Architectural design services market overview

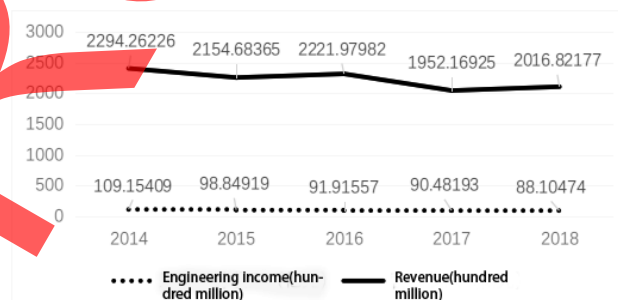
The construction industry is an important material production department of the national economy. It is closely related to the development of the national economy and the improvement of the People's life. Since the reform and opening-up of China's rapid economic development, the construction industry as an important material production sector, but also experienced a rapid development process. This process is reflected in the constant improvement of industrial scale, enterprise benefit and construction ability, which have great significance to the development of our country's economy. However, the development of construction industry in Jilin Province has entered into a state of decline in recent years.

Driven by urbanization, the construction industry in Jilin Province has developed rapidly, with the construction area increasing from 77.47 million square meters in 2011 to 139.93 million square meters in 2014, an annual growth rate of 29.3 percent. The completed area increased from 41.95 million square meters in 2011 to 73.72 million square meters in 2014, representing an annual growth rate of 14.3 percent. The development of construction industry in the past few years has promoted the scale of architectural design market and brought good opportunities for architectural design enterprises. However, since 2014, the construction industry in Jilin Province has become increasingly stagnant, with the annual decline rate of the construction area from 2014 to 2018 reaching 9.8 percent, and the construction area in 2018 even approaching the construction area in 2011, the floor space completed in the same year was lower than that in 2011, as shown in figure 1 (data source: Jilin Province Statistical Yearbook 2014-2019). After many years of prosperity, the construction industry is beginning to show signs of decline.



**Figure 1** 2011-2018 construction area and completed area of Jilin Province.

The proportion of the business income of the architectural design industry in the GDP of Jilin Province has been decreasing year by year. As can be seen from figure 2, since 2014, the engineering design revenue in the architectural design market of Jilin Province has been on an overall downward trend, although the operating revenue increased in 2016 and 2018, but the overall trend is still downward.



**Figure 2** 2014-2018 Jilin Province architectural engineering design revenue and operating income.

### 2.2 Cultural software services market overview

The cultural software industry has been the leading industry in the Internet industry since the 20th century. Cultural software market is divided into software development and digital content services, software development specifically refers to multimedia and animation game software development. As an emerging industry of cultural creativity and design services, the sub-market of cultural software market is developing rapidly.<sup>(4)</sup>

Revenue from China's software industry in 2018 was 6.3 trillion yuan, up 14.2 percent year-on-year. The size of the game market has grown rapidly, with real sales of 214.44 billion yuan in 2018, up 5.3 percent year-on-year. Among them, the mobile game market actual sales revenue 133.96 billion yuan, a year-on-year increase of 15.4% , market share continued to increase, accounting for 62.5% .<sup>(5)</sup> As a strong animation province, Jilin Province attaches great importance to the construction and development of the animation and game industry, forming an original animation and game as the main body and leading enterprises as the core to establish the animation and game industry creative, production, technology and dissemination platform.

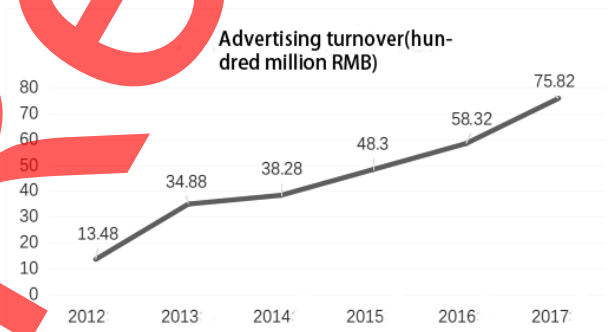
Since 2006, the income of software service industry in Jilin Province has increased obviously, as shown in figure 3(Data Source: Public Service Platform of software and information service industry in Jilin Province) . The annual growth rates of the software services industry were 25.6% , 16.1% , 25% , 20% , 37% , 21.6% , 19.2% , 18.3% , 15.4% , 16.1% , 17% and 12.1% respectively.



**Figure 3** Software services revenue of Jilin Province, 2006-2018.

### 2.3 Advertising services market overview

Since 2012, Jilin Province advertising turnover growth rate is larger, advertising turnover in the state of increasing year after year, the average rate of growth is higher than 20% . In particular, turnover increased by 158% in 2013, the biggest increase in several years, as can be seen in figure 4(Source: Jilin Administration of Industry and Commerce) . The rapid development of cultural and creative industries in Jilin Province will provide more extensive development space for the advertising industry.



**Figure 4** 2012-2017 advertising revenue of Jilin Province.

## 3 Problems existing in the development of creative enterprises in Jilin Province

### *3.1 The added value of creative products is not high, and the core competitiveness of cultural industry is weak*

Independent innovation ability, industrial scale, number of cultural brands with independent intellectual property rights, degree of integration with high-tech, degree of internationalization and other factors constitute the core competitiveness of cultural industries.<sup>(6)</sup> the scale of cultural industries in first-tier cities and provinces such as Beijing, Shandong and Jiangsu has been continuously expanding, which has enhanced the regional cultural innovation capacity, thus driving the upgrading of the structure of cultural industries in the region and promoting the cultural brands of innovative enterprises, the economic benefit of enterprise brand is remarkable. In contrast, the lack of original motive force of cultural industry in Jilin Province leads to the low technical content, weak original ability, easy to be imitated, low added value rate of cultural industry, cultural depth and technical content to be improved.

### *3.2 The degree of exploitation of regional characteristic cultural resources is not enough*

Jilin Province has a unique cultural tradition, and how to make full use of the unique cultural resources, into a real productive force, is a major problem faced by innovative enterprises in Jilin Province. Jilin Province has a strong Tōhoku region Baekdu Mountain culture, a number of ethnic minority customs and culture and historical and cultural sites throughout the Jilin Land. Jilin Province, the first to accept the baptism of modern industrial civilization, is also unique in the human characteristics of industrial civilization such as automobile culture, plus the well-known northeast regional culture at home and abroad. Because of the lag of research and propaganda and the insufficiency of creation and innovation, the creative enterprises in Jilin Province have not grasped the advantage of cultural resources in the development of cultural industry.

### *3.3 Relevant policies and regulations have not yet been established and improved*

The current intellectual property protection system in Jilin Province is not perfect, lacks the independent copyright, appears the characteristic cultural brand to be robbed register the question, lacks the effective protection supervision mechanism. Innovative enterprises ignore the protection of intellectual property rights, and there are many problems in the field of creative industry such as architecture, advertising, fashion design and so on.

## **4 The MODEL and strategy of crisis resolution of creative enterprises in Jilin Province**

The cultural creativity and design services provided by innovative enterprises are characterized by high knowledge, high value-added, low energy consumption and low pollution, cultural Creativity and design industry can promote the cultural upgrading and cultural transformation of many industries, such as manufacturing, urban construction, tourism and so on, and create new economic points.

### *4.1 Strengthen the main body consciousness of the enterprise and bring into play the core competence of the enterprise*

Most of the creative enterprises in Jilin Province are limited by the management level of the enterprise operators and the large amount of manpower, material and financial resources needed for the transformation. Enterprise managers should actively change their management concepts, establish a sense of crisis, and make accurate positioning according to their own reality, so as to avoid vicious low-price competition caused by product homogenization. Large and medium-sized enterprises have strong financial strength, CERTAIN DESIGN AND R & D capabilities, high-quality product quality, and have gradually separated from the global value chain's low-end manufacturing links, therefore, we can continue to increase investment in R & D, design and brand promotion to accelerate the development of cultural and creative industries and the pace of enterprise's own restructuring. Small and micro enterprises should avoid the problem of lack of enterprise resources, be good at learning, absorb effective external resources, give full play to the strong design ability in the course of



enterprise development, so as to better undertake the industrial transfer of large and medium-sized enterprises.

#### *4.2 Pay attention to the cultivation of enterprise innovation ability*

In the process of enterprise transformation and upgrading, Continuous Technology, R & D and Innovation are the important factors that drive enterprise structure adjustment. According to the survey, many enterprises do not attach much importance to R & D design and technological innovation. Therefore, enterprises should increase their investment in technology, R & D and Innovation, and the use of intelligent equipment, we should increase the excavation and application of local culture, cooperate with colleges and universities to cultivate innovative talents, and enhance the overall competitiveness and creativity of cultural and creative industries in Jilin Province. Small and medium-sized enterprises should learn from the successful management experience of large and medium-sized enterprises, and large and medium-sized enterprises can be part of the business to small and micro enterprises, in order to cultivate innovative talent mining.

#### *4.3 Give full play to the function of government and build a service-oriented government*

The main body of industrial transformation and upgrading is the enterprise, but the key to the success of transformation and upgrading lies in the government. The government should put the offer into practice. Many of the suggestions are about recommending preferential policies for industrial integration: Strengthening the drive for innovation through the property rights strategy, and strengthening talent training through the parallel development of higher education, vocational education, and the joint construction of talent training bases, each policy contains preferential and encouraging measures of different contents and scales, such as cultivating market, building industrial clusters, optimizing development environment and providing special financial and tax support and financial services. The government should give full play to its service-oriented function and strengthen the guiding, lever and punishing function of the policy. The government of Jilin Province should actively guide the integration and reorganization of enterprises; the government should establish creative industrial parks and give enterprises preferential treatment in the fields of land, water and electricity; and formulate corresponding policies and measures to attract foreign capital and the entry of enterprises, to further improve the cultural and creative industrial chain, the construction and optimization of the corresponding industrial park facilities.

#### *4.4 Promote third party power*

Here the third-party force, mainly refers to the various trade associations and intermediary institutions. Through trade associations to promote the integration of creative industries with other industries. Relying on the government to promote one by one has been contrary to the market law of cultural and creative industries. The government should be in the role of guidance and service, and more work should be done by trade associations and other non-governmental organization to form a functional third party of industry maintenance, market order maintenance and coordination, industry promotion. Both the government and the enterprises should give support and respect to the third party organizations in order to fully realize market autonomy. Active intermediaries have been an important "lubricant" for communication among innovative enterprises. The government helps enterprises to introduce intermediaries such as technology transfer agencies, which can provide enterprises with legal services, business roadshows, business plans and other services to obtain customers on preferential terms, and to achieve mutual growth between enterprises, to achieve a win-win situation.

## **5 Conclusion**

To sum up, in order to solve the survival crisis of creative enterprises in Jilin Province in the era of big data, we must optimize the services provided by the government and the third-party forces under the guidance of the state policy; strengthen the enterprises' awareness of the main body and bring into play their respective core capabilities; and speed up the reform of the educational system in colleges and

universities, to improve the quality and adaptability of talents, accelerate the deep understanding and research of cultural creativity, and promote and strengthen the cultural and creative industry of Jilin Province.

### Acknowledgments

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