

Analysis and Construction of China ‘Internet +’ Business Model Based on Big Data

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ABSTRACT. *With the continuous development of science and technology, big data has become an important feature of the rapid development of today's Internet economy. Internet + is a new network technology development model proposed with the continuous development of Internet technology, which has a great impact on China's economic society and economic development. Under the premise of continuous integration of Internet + mode and various industries in China, online sales of artworks based on big data have been quietly launched. However, in the process of development, it is inevitable to have various problems that restrict development, such as the combination of online and offline, the trust between customers and artists, the collection, sales and transportation of artworks and so on. Therefore, making full use of big data technology to further optimize and upgrade the art Internet + business model, so as to adapt to the marketing needs of art under the new situation, and promote the healthy and orderly development of the overall art sales market, thus becomes an important subject to be solved urgently.*

KEYWORDS: *Big data, Art, Internet +, Business model*

1. Introduction

As China's economy develops rapidly, people's living standards are improving constantly, and the demand for art and works of art is gradually increasing. Art can reflect people's specific needs in a specific time, and its value is more reflected in the spiritual level than in the material level. Through the feeling, appreciation, understanding and creation of works of art, people can arouse their aesthetic demand, cultivate certain aesthetic taste for themselves, comfort their soul, maintain their mental balance, and regulate their spirit. As important mental food, the works of art has begun to cooperate with Internet + in recent years. The business model combining works of art and Internet is becoming mature and standardized. However, according to the data, this kind of business model shares relatively less the market of works of art. and has not yet achieved a scale. This has limited the sustainable development of this business model. Therefore, it is very urgent and necessary to make full use of big data technology to change the current dilemma.

2. The Internet + Business Model of the Works of Art

The development of network information has brought people into a new era of Internet, meanwhile management of works of art has also entered a new stage of network marketing.¹ Many trading platforms based on Internet technology also rise rapidly, and have been applied and developed in various industries to some extent. The Internet + business model of works of arts also develops and expands with the progress of times. It has experience three stages in development: exploration of professional institutions, involvement of E-commerce ventures and management of individual galleries.

2.1 Network Management of the Business Model of Art Institutions

In the traditional sense, the main carrier of production and sale of works of art are professional art institutions. In recent years, its main marketing means have gradually changed from offline entity sale to new online transaction model. The landmark event of this transformation is the successful launch of “Jiade online” website focusing on the field of online art auction in June 2000. Thus, the Internet + business model has been officially launched. As soon as “Jiade online” was opened up, it opened its doors to the public with a transaction price of 2.5 million (Xu Beihong's Yugong Yishan). After that, the business model of “Jiade online” has become the model of more and more professional art institutions, such as Yachang art, Yidian China, Zhaoyong online, etc., and the online sale of works of arts have become the focus of public attention. It is because of the well-known art portal websites and the platforms of We media that the consumer's confidence in online transactions of works of art has been greatly improved, and this business model inevitably shows some drawbacks. For example, the works of art auctioned online are mainly from the hands of famous artists, with a small number of works, large paintings, and relatively high price, resulting in relatively small volume of transactions.²

2.2 Transaction Content Diversification of e-Commerce Platforms

As the online marketing model of works of art on professional portal websites is getting stable, famous domestic E-commerce platforms have also begun to set foot in the field of online trading of works of art. In 2013, the online auction activity launched by Taobao and Baoli was the first attempt of online auction of works of art on the E-commerce platform. Since then, Suning, Gome and Amazon have launched an Internet marketing strategy for works of art. This kind of Internet + business model of works of art has broadened the distribution channels of works of art, and has integrated the existing resources of works of art at home

and abroad. It has also saved the cost of storage of works of art and created more profits for the sellers. In contrast, the works of arts on sale are mostly mid-range products and the price range is large, providing more choices for consumers.

2.3 Art Individuals' Sales Approach Flexibility

In recent years, the Internet + business model has been recognized by consumers, and has formed certain industry norms. More and more consumers and artists have also learned the operation process, which enables individual artists and gallery studios to flexibly develop their personal auctions of works of art on influential network platforms, such as Taobao, Tencent and WeChat platforms. Just like bamboo shoots after a spring rain, individuals and companies that make use of WeChat platform and WeChat official account have also sprung up to meet the needs of users. The target group of such business model is the young people with low and middle income, who have the pursuit of artistic enjoyment, but can not afford the famous artists' original works with high price. The market is located in low-range works of art. The price is not high but it is aimed to make small profit but quick turnover. The volume of turnover is the largest among these three business models.³

3. The Main Features of the Internet + Transaction Market of Works of Art

The Internet + business model of works of art is a historic leap, compared with the traditional business model. It not only allows online and offline sales to be organically integrated, but also allows the Internet + business platform to optimize and re-develop on the basis of the original offline sales market of works of art.

3.1 Business Internationalization

Being widespread, as the characteristic of the Internet, determines the possibility of transforming the Internet + business model to international business model. The openness of the Internet also determines that the Internet + business model will be accessible to the global buyers, laying the foundation for international business. Before the Internet + business model appeared, any business model and business philosophy are to find marketing targets and potential customers within a certain scope, while the Internet + business model is an open business model without boundary, which means that it can attract customers worldwide. The Internet + business model has wide market, cultural differences, and educational security guarantee, which provides not only unlimited development space for the Internet + business model, but also greater possibilities for the maturity of international business model.⁴

3.2 Process Speediness

The Internet + business model is an online transaction model that relies mainly on computers. Computer can store a lot of information in the process of transaction, and also can ensure the accuracy of information dissemination. This kind of information dissemination and storage quantity is far more than that of other sales methods. In particular, the intervention of big data technology and cloud computing, the Internet + business model of works of art can perceive the price changes of the market at any time, remind sellers timely to change prices, and effectively understand and meet the consumer demand.

3.3 Transaction Openness

The Internet + business model of works of art displays the images of goods for buyers through big data analysis, so as to achieve two-way effective communication between the two sides. The process of communication and the process of purchase are recorded and stored by big data. If any buyer or seller wants to inquire about a transaction process or capital exchange process, they can always transfer the required information from the data base, thus adding more transparency and credibility to the Internet + business model.

4. The Current Situation and Problems of the Internet + Business Model of Works of Art

4.1 Current Situation

The transaction volume is constantly increasing. The price ceiling keeps being exceeded. The confidence in online consumption of works of art is continuously enhanced also.

In the current society, online operation of works of art has become one of the main ways of operation of works of art.⁵ Although the time since the Internet + business model appeared is relatively short, the volume of transactions generated by this model shows explosive growth. In 2012, the volume of the Internet + business model of works of art was 1 billion 500 million yuan; in 2013, it was 3 billion yuan; in 2014, it was 4 billion 500 million yuan. In 2015, affected by macro-economic restructuring and other factors, the sales of works of art fell for a time. The boom index of the art market rebounded from 2017 to 2018, but the speed of overall development slowed down. In 2019, the online transaction volume was 1.8 billion yuan. In 2020, the art market was not optimistic in the face of the COVID-19 epidemic situation. Nevertheless, in July 2020, Hongkong's Sotheby's and Hongkong's Phillips auctioned 925 million yuan of contemporary works of art by Zhu Dequn and Chang Yu through both online and offline, which inspired the art market in the post epi-

demic era. This Internet + business model will be recognized by more and more professionals, organizations and consumers.

At present, nearly half of the works of art in the world are sold online through the Internet + business model. The selling price ceiling of the Internet + business model is also constantly exceeded. Half of the buyers said that because they purchased other products or service on the platform, they trusted the Internet sales platform and Internet + business model. Such shopping experience imperceptibly increased the confidence of buyers to buy works of art through Internet + business model. This confidence will promote the Internet + technology to upgrade continuously and provide a more reliable foundation for Internet + business model and other business models. According to a survey of people buying works of art on the Internet, 65% of buyers are very satisfied with the works of art purchased on the Internet, and the higher satisfaction also shows buyers' recognition of the Internet + business model of works of art.⁶

4.2 Problems

It is a single marketing model. The public praise of online operation is different. There are loopholes in after-sales service.

Most of the Internet + business models of works of art are imitating traditional trading patterns and applying traditional transactions and trading methods directly to the Internet. This simple imitation cannot imitate the essence of traditional business model. It didn't change according to the Internet + business model either, which results in the fact that most of the E-commerce companies of traditional works of art rely on the offline sales. The Internet + business model of works of art in China is still dominated by traditional marketing model. It only adds a new way of operation. There is no substantial change in marketing methods.

The good and the bad are intermingled in the sales market of works of art in China, which is not only an individual phenomenon in China, but a universal phenomenon in the market of works of art. When the sales of works of art was simply transferred to the Internet, most of the sellers only show part of the characteristics of the works of art, and consumers can distinguish the true from the false only through the pictures on the network, which does not exclude the phenomenon that some sellers sell shoddy products. In this way, the undesirable phenomenon of the market of works of art is superimposed on the problems caused by the virtual nature of the Internet itself, which makes the trust problem of the Internet + business model infinitely enlarged. Although some Internet + business platforms provide online identification services to consumers, consumers still have big doubts about this way of identification. Because of their own characteristics, some work of art only have one piece existing in the world, so the purchase of this kind of works of art has become a one-time purchase. Consumers have no way to find the transaction records and evaluation information of this article in the past, so they have no way to identify the

authenticity. Some online sellers will take some false actions like false auction or false sales to keep the market alive when the trust fails and the business condition is bad at the same time. This is a helpless move, but it will cause a vicious circle taking shape in the Internet + business model of works of art, which will eventually result in the overall failure of the Internet + business model.

Because of the characteristics of works of art, the Internet + business model of works of art has obvious differences from other products in the business model. The after-sale service is especially different. China has been imitating the business models of other products since the Internet + business model appeared in the beginning. In fact, the payment methods and logistics means of other products are not suitable for the Internet business of works of art. However, the new model that accord with the Internet + business of works of art has not been formally established, which is a great obstacle to the development of the Internet + business model. In the Internet payment system, E-commerce platform is not only the custodian but also the seller. However, in the actual transaction process of works of art, the seller cannot put trust in the E-commerce platforms. Moreover, the actual transactions on the platforms cannot be fair. In terms of logistics system, due to the characteristics of most works of art, the packaging of many logistics companies does not meet the transportation requirements of works of art. At the same time, transport personnel of works of art who are not professional also increase the risk of damage of works of art. When this happens, the sellers and the platforms will shirk their responsibilities to each other and ultimately damage the personal interests of consumers.

5. The Construction of the Internet + Business Model of Works of Art

The Internet + business model is not simply copying the offline sales model of works of art to the online platform, but changing the original marketing ideas, forming a internet based medium, promoting the innovation of business model with the big data technology, bringing artists, auction houses, platform providers, consumers and customer service into a dynamic community and ecosphere, so as to construct an Internet + business model of works of art that is suitable for China's national conditions.

5.1 Cultivate Internet Community and Innovate Consumption Environment

The Internet community is an online communication space which is composed of non-governmental personages and organizations, including forum, post bar, advertising, personal space and so on. The Internet community divides the scope according to the group preferences and different topics, and relies on the network big data to gather the users with the same interest together. Through the data mining and analysis of the consumer groups, the classification management, analysis and assessment are carried out, so as to achieve the purpose of making the information on the network more targeted. Limited by China's national conditions, the whole society has not formed a habit in appreciation and consumption of works of art. Therefore, the characteristics of the Internet community can be made full use of and the ad-

vantages of network communication can be given full play. Firstly, a virtual exchange community focusing on appreciation or collection of works of art in the Internet community should be built, so as to create a more perfect online sales model of works of art based on the precise screening of big data. Through the Internet technology, users in the community can be connected seamlessly through this Internet community. Besides, the basic artistic quality of these people and their interest in appreciation of works of art can be cultivated, so as to achieve the goal of expanding the potential customers of the Internet + business model. The core customer group of the Internet + business, which is mainly based on the Internet community, has not only a large volume of consumption, but also a relatively strong desire to purchase. Furthermore, with the word of mouth of the Internet community, an exclusive Internet + brand of works of art can be created, so as to target the people in this group and the potential population in the Internet community.⁷

5.2 Take the Works of Art as the Core and Do Well in Cross-Border Business

Cross-border business is a major feature of the Internet + business model. In the current society, a variety of huge information spread with the help of the Internet at an unprecedented speed. Barriers between all walks of life have been broken one by one. The integration and mutual guidance between industries have become a new trend of development at this stage. Driven by the era of big data, the Internet + marketing strategy of works of art should completely change the traditional sales ideas, take the works of art as the core, and radiate the surrounding areas, including the establishment of courses of collection of works of art both online and offline, the introduction of new artists, the development of a perfect intellectual property rights identification system, the establishment of a more convenient data system and a more perfect online auction system. Meanwhile, the value added services of works of art should be upgraded together with the sale of products.⁸

With the continuous development of social economy, people are no longer satisfied with the convenience function of traditional daily necessities, and turn to pursue the ornamental and regulatory functions brought by the works of art. Producers of the works of art have also begun to design products that meet the aesthetic requirements of modern people and have a good sense of use at the same time, so as to further shorten the distance between the works of art and daily necessities. The online business model breaks the gap between consumers and the works of art, which enables consumers to experience the emotion that the works of art convey while consuming. Therefore, the development and integration of the peripheral elements of the works of art and big data calculation of artist index and price index are the best grasp of the dynamics of the market of the works of art, so as to maximize the value of the works of art.

5.3 Standardize Business Behavior and Create a Good Market Environment

The era of big data calls for the transformation of the Internet + business model. The marketing exploration over the past few years has exposed problems such as the urgent need of market standard and the vicious competition within the industry. Under the new situation, if the Internet + business model is expected to develop further, there are some aspects as follows that should be paid attention to: to build an art identification system with the works of art as the core based on big data, improve the marketing platform of works of art, and improve the after-sales service system of works of art, so that these elements can be organically combined and interact with each other to form a closed-loop system for the Internet business of works of art. The business environment becomes healthier, thus fully reflecting the superiority of the Internet marketing of works of art, expanding the scope of the Internet + platform in the future, and providing better business space for the Internet + business model of works of art.

The current Internet + business model of works of art only pays attention to specific parts in the business, such as pre-sale consultation and display of works of art. It lacks enough attention to appreciate works of art online. The sales of works of art, the customer service, and the packaging are not paid enough attention either. These resulted in little effect of the Internet + business model and failure to satisfy the expectations of consumers. It has not achieved most buyers' ideal purpose for sale.⁹ Therefore, only by making full use of big data technology, carrying out a comprehensive reform and improvement of the Internet + business model, and creating a well open online business environment can the online business of works of art get a good and rapid development.

6. Conclusion

The Internet + business model of works of art is not simply replacing the offline sales with online sales. Instead, it is necessary to rely on big data and cloud computing to make the entity sales of works of art and the Internet + business model infiltrate each other through various channels such as community, forum, video, advertising, WeChat and so on and dig into all aspects of the marketing of works of art. Moreover, the traditional marketing strategy of works of art should be updated, improved and optimized in essence. It is also significant to cultivate the Internet + business model of works of art to become a new growth point of the social economy in China, so as to achieve continuous development and expansion of the sales market of works of art in China. The Internet + business is not a new thing, but the industry has not yet been properly developed. Although China has been emphasizing the integration of the Internet + business model in economic development, the economic efficiency of the Internet + business model has not reached the expected level. The fundamental reason is that the current Internet + business model has not yet explored the way of marketing that perfectly combines with the Internet business

model. Effective innovation and reform must be implemented in the light of the characteristics and requirements of the big data era. The deep integration of the Internet + business model of works of art and the Internet business model should be promoted. The universality and timeliness of Internet dissemination should be made full use of so as to take complementary advantages. It is better to change the business concept, so that the Internet + business model of works of art can develop effectively and sustainably.

References

- [1] Zou Dongfang (2020) 'A Study on the Path to Innovation and Entrepreneurship Education in Higher Vocational Art Major under the Marketization of Internet + and Works of Art', *Internet + Innovation and Entrepreneurship [J]*. China Science and Technology Thesis, vol.15, no.5, pp.610.
- [2] Ding Lei (2016). *The Business Model of Works of Art Based on Big Platform under the Background of Internet + [J]*. *Operation and Management*, no.7, pp.51-53.
- [3] Yang Jie (2019). *The Transformation of the Art Market under Internet + Model[J]*. *Marketing Field*, no.28, pp.49-50.
- [4] Chen Mengyuan (2019). *Study on Internet Trading of Calligraphy and Painting Works under the Background of Internet +[D]*. Jiangsu University.
- [5] Li Hexian (2019). *On the Business Model Innovation of Guangxi Ethnic Handicrafts under the Background of Internet +[J]*. *Knowledge Economy*, no.13, pp. 52-53.
- [6] Liang Donghua (2018). *The Art History in the Internet Era[J]*. *Sichuan Drama*, no.2, pp.12-17+22
- [7] Cai Shuihua (2019). *The Opportunity for the Development of Artworks Finance in China under the Background of Internet +[J]*. *Journal of Fujian Institute of Financial Management*, no.1, pp. 19-23.
- [8] Chi Yi, Cai Ye (2019). *A Study on the Internet Upgrading and the Market Development Strategies[J]*. *The Farmers Consultants*, no.6, pp.296.
- [9] Cai Hua, Shen Zhou, Hong Ying (2018). *The Transformation and Innovation of the Business Model of Jiangxi Market of Works of Art under the Background of Internet +[J]*. *The Farmers Consultant*, no.24, pp.268-369.
- [10] Nie Sha (2018). *A Study on the Redesign of China's Traditional Cultural Elements under the Background of Internet + -Taking the Twelve Chinese Zodiac Works as Examples, [J]*. *Chinese National Expo*, no.11, pp.156-157.
- [11] Li Yuqin (2018). *The Problem and Path of Enhancing the Competitiveness of the Internet + Platform of Works of Art. [J]*. *Journal of Shenzhen University (Humanities and Social Sciences page)*, vol.35, no.4, pp.45-52.
- [12] Li Tengting, Wei Xiaobo (2018). *The Comparative Analysis of the E-commerce Business Model of Works of Art in the Internet + Era[J]*. *China Business Theory*, no.17, pp. 21-22.