

# Digital Transformation and Management Change Of Music Industry: Theoretical Discussion Based On Market Perspective

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**Abstract.** From the perspective of market, what kind of transformation and management changes are there in the music industry under the digital wave? With the rapid development of Internet technology, the music industry is suffering from unprecedented impact of change, and the traditional business model and management mode are facing great challenges. Based on literature review and case analysis, this study deeply explores the impact of digitalization on all aspects of the music industry, including music creation, production, distribution, marketing and consumption. The results show that digital transformation not only changes the way of music production and dissemination, but also reshapes the structure of the industrial chain and the mode of value creation. In this context, music companies need to adopt new management strategies, such as data-driven decision-making, optimizing user experience, and innovating copyright protection. This paper also analyzes the main challenges in the process of digital transformation, such as copyright protection, income distribution, artist training and other issues, and gives the corresponding management reform suggestions. Finally, the paper looks forward to the future trend of digital development of the music industry, so as to provide theoretical reference and practical guidance for relevant enterprises and policy makers.

**Keywords:** Music industry; Digital transformation; Management change; Market perspective; Business model innovation.

## 1. Introduction

The music industry is an important part of the cultural and creative industry, which is undergoing profound changes in the digital era. Due to the rapid development and popularization of Internet technology and digital wave in the world, it brings unprecedented opportunities and challenges to the music industry. Therefore, this paper discusses the transformation of the music industry in the digital environment and the reform of management from the perspective of market. In order to deeply analyze the impact of digitalization on each link of the music industry, so as to provide theoretical reference and practical guidance for relevant enterprises and policy makers.

The global music industry has seen an obvious growth trend in recent years. According to the data of the International Federation of the Phonographic Industry (IFPI), the global recorded music market revenue reached 25.9 billion US dollars in 2021, an increase of 18.5% compared with the previous year, and streaming media revenue was the dominant one, accounting for 65.0% of the total revenue. This is enough to show that the digital transformation of the music industry has achieved results and has great potential. Chinese market, the digital music industry development well, ai media consulting data show that in 2021 China's digital music market size is 82.32 billion yuan, estimates that can break through 100 billion yuan by 2023.

The production and transmission mode of music has been completely changed by digital transformation, and the structure of the industrial chain and the mode of value creation have also been reshaped. The traditional music industry chain takes physical records as the center, including creation, recording, production, distribution, sales and other links. In the digital era, the chain has been greatly compressed and reconstructed. Music creators can directly use online platforms to release their works to establish a direct connection with listeners, and streaming media platforms have become the main channels for music transmission, which has changed the traditional sales model. In addition, the application of big data and artificial intelligence technology has made music creation, recommendation and marketing new possibilities.

However, although the digital transformation is good, there are also many challenges. The development of the industry is still trapped by problems such as copyright protection, income

distribution and artist training. And now we have to solve many things quickly, such as how to protect the rights and interests of music creators in the digital environment, how to build a reasonable income distribution mechanism, and how to explore and cultivate new musicians when algorithm recommendation is so popular.

The digital transformation of the music industry has its background and current situation. This paper intends to cut from here and analyze its driving factors, main performance and challenges. After that, it also wants to discuss the market reform of the music industry under the digital environment, such as the transformation of consumption mode, the innovation of production and distribution channels, and the remodeling of market competition pattern. In addition, this paper hopes to provide theoretical guidance and practical inspiration for the digital transformation and management reform of the music industry through these analyses.

## **2. The background and current situation of the digital transformation of music industry**

### **2.1. Driving factors of digital transformation of music industry**

Multiple factors jointly promote the digital transformation of the music industry, among which technological progress is the biggest, most direct and most important driving force. Because the rapid development of Internet technology and the popularization of mobile Internet and 5G technology have brought new platforms and many possibilities, making music creation, transmission and consumption all different, and high-speed network has made audio streaming possible. Cloud storage technology also enables users to access massive music resources anytime and anywhere. In addition, the application of artificial intelligence and big data technology provides great support in music creation, personalized recommendation and precision marketing.

Secondly, one of the important driving force of digital transformation is the change of consumer demand, because digital native consumers have higher requirements for convenience, personalization and interactivity in music consumption. They prefer to use mobile devices to enjoy music anytime and anywhere and want personalized music recommendation and immersive listening experience. Therefore, the music industry has to adapt to new consumption patterns in order to cope with this change in demand.

In addition, traditional music companies are forced to accelerate digital transformation by intensified market competition, because the entry of Internet giants and technology companies into the music market makes traditional record companies and music publishers encounter unprecedented competitive pressure. In the new competitive environment, if they want to survive and develop, they can only accept digitalization and explore new business models and profit methods.

Finally, the digital transformation of the music industry is driven by the important factor of policy support. In recent years, governments around the world have introduced policies to support the digital development of the cultural industry. In China, for example, the 14th Five-Year Cultural Development Plan issued by The State Council of China in 2021 clearly pointed out that the digital transformation and upgrading of the cultural industry should be promoted. Thus providing strong policy support for the digital transformation of the music industry.

### **2.2. Main manifestations of digital transformation of music industry**

The digital transformation of the music industry is mainly reflected in the following aspects:

Music creation and production have taken the lead in realizing digitalization. Due to the widespread use of digital audio workstations (DAW) and virtual instruments, music creators can complete professional music production at home. Moreover, artificial intelligence composition technology has developed, such as Google's Magenta project, which explores the possibility of AI helping music creation. These technologies have not only improved the efficiency of music creation, but also broadened the scope of music creation.

Second, music distribution and transmission channels have been digitized, and streaming platforms such as Spotify, AppleMusic and Tencent Music Entertainment Group's QQ Music have become the main channels for music transmission. IFPI report shows that the number of global music streaming subscribers reached 523 million in 2021, up 21.9% from the previous year. This model has not only changed the way music is transmitted, but also reshaped the profit model [4] of industry development.

In terms of the digitalization of music marketing and promotion, social media and short video platforms now play an important role in music promotion and enable artists to directly interact with fans to increase their exposure. In addition, precision marketing strategies based on big data also make music promotion more efficient and personalized [3].

Finally, music consumption experience has become digital, VR/AR technology has been applied, so that users' music experience has become immersive, such as the rise of virtual concerts, so that fans can enjoy the atmosphere of live performances without leaving home, and there are personalized recommendation algorithms based on user behavior data, so that users can more easily find their favorite music.

### **2.3. Challenges in the digital transformation of music industry**

Although the music industry has great opportunities in digital transformation, it also faces many challenges.

The situation of copyright protection is still serious, because the digital environment makes it easier for music works to be copied and spread and piracy and infringement are constantly emerging, so this is a huge challenge for the digital music industry, that is, to effectively protect the rights and interests of music creators while making it convenient for users to access music. Data from the China Audio and Video Copyright Collective Management Association shows that China's music copyright revenue reached 590 million yuan in 2021, which is quite a lot but far from that of developed countries [10].

Secondly, the problem of income distribution is becoming more and more prominent. The streaming media model has changed the income structure of music creators. The sales income of traditional records has been greatly reduced and the sharing mode of streaming media platforms has been controversial [5].

Once again, the issue of data privacy and security has become increasingly prominent, because music streaming platforms have a large amount of user listening behavior data, so how to protect user privacy and avoid data abuse has become a major challenge for the digital music industry, and as the music industry becomes more and more dependent on digital technology, network security is becoming more and more important.

Finally, the diversity of music is threatened. Although algorithm recommendation improves the efficiency of users' discovery of music, it may cause the "information cocoon room" effect and limit users' access to diversified music. Therefore, the digital music industry needs to think about how to protect the diversity of music culture when providing personalized services.

## **3. The market reform of music industry in the digital environment**

### **3.1. Transformation of music consumption mode**

In the digital environment, the music consumption model has fundamentally changed. The traditional music consumption mainly depends on the purchase of physical records, and you have to pay a high one-time fee to own specific music works. In the digital era, the streaming subscription model has become the mainstream, and users can get access to massive music resources by paying monthly or annual fees. In the digital era, the streaming subscription model has become the mainstream, which allows users to pay monthly or annual fees to get access to massive [6] music resources.

IFPI data show that global music streaming revenue reached US \$16.8 billion in 2021, accounting for 65.0% of the total recorded music revenue, while IIMedia Consulting report shows that China's digital music users reached 668 million in 2021 and paying users accounted for 20.3%, which can be seen in the dominant position of streaming model in music consumption.

In addition to the subscription model, digitalization also makes music consumption show a trend of fragmentation and socialization. After the rise of TikTok, Douyin and other short video platforms, music clips have become important social content, and users can quickly discover and share their favorite music through these platforms, which not only changes the way of music transmission, but also affects the direction of music creation.

In addition, the music consumption scene continues to expand. The popularization of smart speakers, car audio systems and other smart devices makes music consumption penetrate into all aspects of life. In addition, the application of virtual reality (VR) and augmented reality (AR) technology brings users a more immersive music experience. In 2020, the American rapper TravisScott held a virtual concert in the Fortnite game, with more than 12 million players participating, which opened a new form of music consumption.

### **3.2. Innovation of music production and distribution channels**

The production and distribution of music has been completely changed by the development of digital technology. In the production process, the popularization of digital audio workstation (DAW) and virtual instruments greatly reduces the threshold of music production, so independent musicians can complete professional music production at home, thus greatly promoting the democratization of music creation. And the application of artificial intelligence technology in music creation is more and more widely. For example, Huawei AI composition system successfully completed Schubert's "Unfinished Symphony" to show the potential of AI in music creation.

The main channel of distribution has become a digital platform, and musicians can directly release their works through a variety of online platforms instead of relying 100% on record companies. In this trend of disintermediation, musicians have more creative freedom and revenue sharing. Just like the "Cloud Village Label" plan launched by NetEase Cloud Music in China, which provides independent musicians with one-stop service from creation to distribution.

After the rise of streaming media platforms, the consumption mode and profit model of music have also been changed. Global streaming media platforms such as Spotify and AppleMusic, as well as local platforms such as QQ Music and Netflix Cloud Music, are all profitable by subscription system and advertising revenue, and they are not only music distribution channels, but also important in music discovery and recommendation. Because Spotify's 2021 financial report shows that it has 406 million monthly active users and 180 million paid subscribers, which is enough to show the influence [9] of streaming media platforms in the market.

In addition, important channels for music transmission also include social media and short video platforms. For example, TikTok's "voice" feature enables users to easily use and disseminate music clips, thus giving music a chance to go viral and influencing the trend of music creation, leading to more music works suitable for short video transmission.

### **3.3. Remodeling of competition pattern of music market**

The market competition pattern of the music industry has been profoundly reshaped by digital transformation. The traditional vertical integration model of creation, production, distribution and sales with record companies as the core has been broken in the digital era and new participants continue to emerge, making the market more open and diversified.

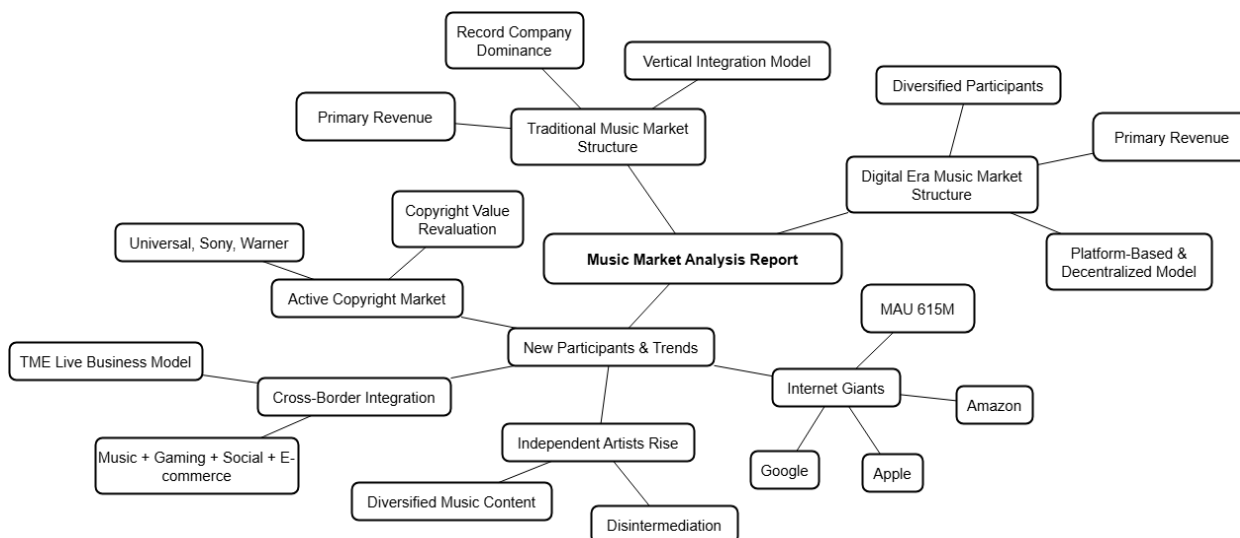
First of all, the music market is valued by Internet giants and technology companies and has become an important force. Technology giants such as Apple, Amazon and Google have entered the music streaming market and compete with traditional music companies by virtue of their own technical advantages and user base. In the Chinese market, Tencent Music Entertainment Group

dominates the market by relying on QQ Music, Kugou Music and Kuwo Music, with 615 million monthly active users of its online music service in 2021.

Second, the growing influence of independent musicians and small music labels is driven by the disintermediation of digital platforms, which allow independent musicians to distribute their work directly to users without having to rely exclusively on major record labels. This change is diversifying the music market and creating room [7] for niche music.

As for the more dynamic music copyright market, people have realized the value of music copyright after the rise of streaming media platforms. Major music copyright companies such as Universal Music, SONY Music and Warner Music have new revenue sources from cooperating with streaming media platforms, and music copyright trading and investment are becoming more and more active day by day. Take 2021 listed on the nyse universal music group, the most valuable exceeds \$50 billion, for instance, it reflects the market value music copyright.

Finally, the new trend is cross-border cooperation and ecosystem competition. The music industry is increasingly integrated with games, social networking, e-commerce and other fields. For example, Tencent Music Entertainment Group's "TME live", which combines online concerts with e-commerce, has created a new business model. The expansion of the boundaries of the music industry and the increasing complexity of market competition are due to this cross-border integration.



**Figure 1.** The remodeling of the music industry market competition pattern under the digital environment.

## 4. Management strategies in the digital transformation of the music industry

### 4.1. Data-driven decision management

After the development of the music industry, digital transformation has taken place, so enterprises must adopt the key strategy of data-driven decision management to enhance their competitiveness. Moreover, with the continuous development of big data technology, the music industry has accumulated a large amount of user behavior data and market information. Statistics show that the number of digital music users in China will reach 728 million in 2022. Statistics show that the number of digital music users in China will reach 728 million in 2022, up 5.4% compared with the previous year, thus bringing rich data resources to enterprises.

In terms of decision management, data-driven is mainly reflected in the following aspects: First, if an enterprise can analyze the data of users' listening habits, preferences and comments, it can accurately grasp the market demand and guide the music creation and production. For example, after analyzing the user data, a music platform found that the folk style was on the rise due to the demand of users born in the 1990s, so it immediately adjusted the relevant music recommendation strategy. As a result, the playback volume of folk music increased by 15%. Second, music distribution and

marketing strategies can be optimized by data analysis, because enterprises can develop more targeted promotion plans after analyzing the communication effect data of different channels and different periods of time. Third, pricing strategies and revenue distribution models can also be optimized by data driven, as companies can formulate more reasonable membership pricing and music pricing strategies after analyzing users' willingness to pay and consumption behavior.

However, data-driven decision management faces challenges in terms of data quality and privacy protection. Therefore, enterprises need to build a complete data governance system to ensure data accuracy and compliance, and cultivate professionals with data analysis skills to improve data interpretation and application [1].

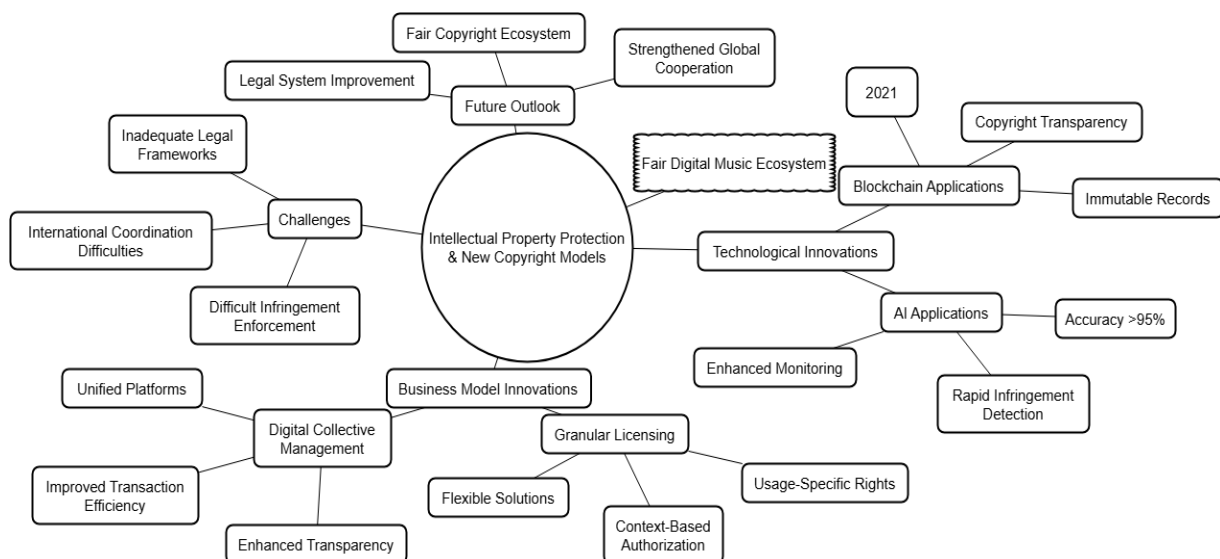
#### 4.2. New models of intellectual property protection and copyright management

In the digital environment, intellectual property protection and copyright management of the music industry are encountering new challenges and opportunities. Although the development of digital technology makes it easier for music works to be copied and spread, thus increasing the risk of piracy and infringement, digitalization also brings new technical means and new business models to copyright management.

In recent years, the music industry has introduced many innovative measures in copyright protection. The application of blockchain technology has made music copyright management a new hope. Recording the information of music works on the blockchain can make the copyright transparent and cannot be tamper with, thus effectively preventing piracy and infringement. 2021 China music copyright application block chain market size of 350 million, and forecast can break through 1 billion to 2025, the use of artificial intelligence technology has improved surveillance and copyright rights efficiency, as there is a music platform out of the monitoring system, the copyright of the AI can quickly identify the network infringing content over 95% accuracy.

In terms of business model, digitalization has promoted innovation in copyright management. For example, the segmentation licensing model of music copyright has been widely adopted, and enterprises can formulate flexible licensing schemes according to different use scenarios and uses. In addition, the digital transformation of copyright collective management organizations has been accelerated, and a unified digital copyright trading platform has been established to improve the efficiency and transparency of copyright trading.

However, the new model of intellectual property protection and copyright management still faces challenges such as the lack of laws and regulations and difficulties in international coordination. Therefore, it is necessary to further improve the relevant legal system and strengthen international cooperation to build a more fair and reasonable copyright ecosystem [8].



**Figure 2.** New models of intellectual property protection and copyright management in the digital transformation of the music industry.

### 4.3. Talent training and organizational structure optimization

The digital transformation of the music industry makes the talent structure and organizational management face new requirements. The traditional music talent training mode and organizational structure are difficult to meet the market demand in the digital environment, so it is necessary to reform and optimize [11] as soon as possible.

In terms of talent training, the music industry is required to cultivate compound talents through digital transformation. These talents not only need to have professional music creation and production ability, but also have to master cross-field knowledge and skills such as data analysis, digital marketing and copyright management. Statistics show that in 2022, the demand for digital talents in China's music industry will increase by 30% year on year, and the demand for data analysts, digital marketing experts and other positions is the largest. Therefore, many music enterprises and universities join hands to set up digital music related majors to cultivate compound talents in line with the industry demand. In addition, enterprises also strengthen internal training and improve employees' digital ability by means of online courses, workshops and other forms.

In terms of organizational structure, the organizational structure of music enterprises has been pushed by digital transformation to become flat and flexible. Because the traditional vertical management mode has been unable to cope with the rapidly changing market environment, many music enterprises adopt matrix or project organizational structure to improve decision-making efficiency and innovation ability. For example, a well-known music company reorganizes its organizational structure and sets up a cross-department digital transformation project team to promote the digital transformation of each business line, and the effect is quite remarkable.

In addition, the way the music industry works is being transformed by the spread of remote working and collaborative working tools, as the survey shows that 60% of companies in the music industry have improved their work efficiency and employee satisfaction after adopting a hybrid working model in 2022.

However, talent cultivation and organizational structure optimization encounter many challenges such as brain drain and culture conflict. In the future, music enterprises need to build a more complete talent incentive mechanism and create an organizational culture that supports innovation to meet the requirements of digital transformation.

## 5. Conclusion

From the perspective of market, this study discusses the digital transformation and management reform of the music industry, and deeply analyzes the impact of digitalization on all links of the music industry, as well as the challenges and opportunities contained therein. The results show that the production, dissemination and consumption mode of music have been changed by digital transformation, and the industrial chain structure and value creation mode have also been reshaped. In this context, music companies need to adopt new management strategies, such as data-driven decision-making, intellectual property protection and innovation, talent training and organizational structure optimization.

Music industry development for the digital transformation had great opportunities but also faces many challenges, so companies have to constantly push the new business model, optimizing the user experience, strengthen copyright protection, cultivating compound talents to adapt to rapidly changing market environment, and later as the 5 g, developed new technologies such as artificial intelligence, virtual reality, With the development of 5G, artificial intelligence, virtual reality and other new technologies, the digital transformation of the music industry will enter a new stage and become more intelligent, personalized and integrated.

The digital transformation of the music industry is a systematic and long-term process, so it depends on the joint efforts of all aspects of the industry chain, that is, the government should improve relevant laws and regulations to create a good industrial environment, enterprises should increase investment in technology and innovate management mode, and educational institutions should adjust

talent training programs to meet the needs of the industry. Only with the concerted efforts of all parties, In the digital era, the music industry is expected to develop sustainably and create more cultural and economic values for the society.

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