Analysis of the Impact Path of Digital Economy on China's Foreign Cultural Trade

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Abstract. Under the background of digital transformation of global economy, the influence of the digital economy on the field of international trade is continuously deepening, with a particularly prominent effect on China's foreign cultural trade. This paper comprehensively employs data comparison and empirical analysis methods and dissects the influence mechanism of the digital economy on foreign cultural trade and then proposes corresponding strategies. The research indicates that the digital economy can promote the development of foreign cultural trade through optimizing the allocation of production factors, expanding market space, innovating trade models, and promoting industrial integration. Empirical results show that the development level of the digital economy significantly boosts the scale of China's foreign cultural trade and plays a positive role by broadening trade channels, enhancing trade competitiveness, and stimulating international cultural consumption demand. Therefore, it is suggested to start from improving digital infrastructure in different regions, increasing the technological content of cultural products, optimizing the trade structure, creating high-quality cultural service brands, and strengthening policy support for new digital cultural business forms and models, to promote the high-quality development of China's foreign cultural trade.

Keywords: Digital economy, China's foreign cultural trade, empirical analysis, cultural products and services, impact path

1 Introduction

Since the 18th National Congress of the Communist Party of China, the digital economy, driven by the Internet, big data, and artificial intelligence, has been established as a national key strategy, significantly expanding the development space for the cultural industry. Digital technologies have reshaped the creation, dissemination, consumption, and trading of cultural products, injecting new impetus into China's cultural trade with foreign countries. This paper, from a new perspective of industrial theory, systematically explains the paths and mechanisms through which the digital economy influences China's cultural trade with foreign countries, deeply

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analyzes the digital empowerment effects at each stage of cultural products, sorts out the current challenges, and proposes enterprise strategies and policy recommendations for promoting the high-quality and sustainable development of China's cultural trade with foreign countries.

The relationship between the digital economy and cultural trade has been an early focus of foreign academic circles. Research indicates that digital technologies promote cultural trade by reducing transaction costs and expanding market boundaries[1], and the platform economy has restructured the models of cultural creation and dissemination[2]. Some studies have also examined the impact of digital cultural trade on cultural diversity, warning against the dominance of a few countries' cultural products on global platforms[3]. Domestic research has gradually enriched in recent years, mainly focusing on theoretical discussions, current situation analyses, and policy interpretations of the digital economy and the cultural industry. Scholars have defined the connotation of the digital economy from the perspectives of data elements and industrial digitalization[4], and analyzed the problems and countermeasures of China's cultural trade [5]. Research has pointed out that digitalization enhances the efficiency of cultural trade and enriches trade forms[6], and gives rise to new business forms and growth points[7]. At the policy level, documents such as "Opinions on Promoting the High-Quality Development of the Digital Cultural Industry" provide support for digital cultural trade [8].

In summary, existing research mostly focuses on theoretical elaboration and phenomenon description at the macro level, and there is still room for deepening in the micro-level mechanism and empirical verification. Therefore, this paper focuses on the influence paths and mechanisms of the digital economy on China's cultural trade with foreign countries, deeply analyzes the empowerment process of digital technologies in key stages such as the creation, dissemination, trading, and consumption of cultural products, systematically explains their specific mechanisms in each stage, and identifies the structural and functional challenges in current development. Empirical research has verified that the development level of the digital economy has a significant positive impact on the scale of China's cultural trade with foreign countries, and its effect paths mainly lie in expanding trade channels, optimizing trade structures, and stimulating international cultural consumption demands. Finally, systematic countermeasures and policy recommendations are proposed to promote the high-quality development of China's cultural trade with foreign countries.

2 The Impact Path of the Digital Economy on China's Foreign Cultural Trade

2.1 Optimization Path of Production Factors

2.1.1 Digital Technology Has Significantly Enhanced Production Efficiency.

In the production process of cultural products, digital technology has replaced the traditional production methods that require high human input and long cycles. Take the animation industry as an example. In the early days, Disney animations required manual

drawing of hundreds of thousands of sketches, which took several years. Nowadays, through professional software such as Toon Boom Harmony and Adobe Animate, digital drawing, automatic rendering and efficient compositing are achieved[9]. The production cycle is shortened by approximately 60% and the labor cost is reduced by more than 40%, making large-scale and high-quality content production possible.

2.1.2 Data Elements Drive Precise Production.

Big data and artificial intelligence technologies have realized the production transformation from "Experience-driven" To "Data-driven". On the one hand, enterprises track global cultural consumption trends in real time through user behavior analysis systems (such as Google Analytics and Alibaba Cloud Data Plus) to guide the direction of content creation[10]. For instance, short-video platforms rely on viewing data analysis to develop marketable short video content in a targeted manner. On the other hand, artificial intelligence has achieved breakthroughs in assisting creation, such as "Caiyun Xiaomeng" AI writing tools can automatically generate text based on the set style. Some e-commerce platforms use AI design systems to generate personalized cultural and creative product design plans based on user preferences, reducing the production cost of small-batch customization by more than 30%.

2.2 Market Expansion Paths

2.2.1 Construction of a Socialized Digital Marketing System.

Cultural and museum institutions represented by the Palace Museum have established. "Social media matrix + content e-commerce" A three-dimensional marketing system. It triggered viral spread on the Weibo platform through topic marketing (such as the topic "Forbidden City Lipstick", which received 230 million views). On Douyin, by creating Short videos of themes such as "Restoration of cultural relics" and "Cultural and creative production" etc., with the highest single play count exceeding 50 million. At the same time, we showcase intangible cultural heritage skills such as Jingtai blue craftsmanship to overseas users, achieving a one-stop conversion of viewing and purchasing by leveraging cross-border e-commerce live streaming. This digital marketing system has enabled the overseas sales of the Palace Museum's cultural and creative products to increase by 470% over the past three years.

2.2.2 Digital Technology Reconstructs the Cultural Service Model.

In the field of medical services, Beijing University of Chinese Medicine has established itself through the platform "speaking of Qihuang", providing the remote traditional Chinese medicine diagnosis and treatment services for the countries along the route of "The Belt and Road Initiative", with a total of 12,000 cross-border consultations completed. In the field of performing arts, the National Theatre of China utilized 5G+VR technology to hold an online performance of "Battle of Shanghai", attracting audiences from 68 countries to pay for it, with an attendance rate 30 times that of traditional theaters. In the exhibition industry, the 3D virtual exhibition hall built

by the China Import and Export Fair (Canton Fair) enables 365-day continuous display, helping cultural equipment enterprises obtain purchasing intentions from 127 countries.

2.3 Innovative Paths for Trade Models

2.3.1 Channel Innovation in Cross-Border e-Commerce.

The cultural products section of Alibaba International Station has gathered over 50,000 domestic cultural enterprises and achieved cross-border transaction volume of 8.7 billion yuan in 2023. The platform optimizes the trade process through three major mechanisms: First, it establishes a cultural product grading and certification system, and adds to the Identification of "Cultural Origin" for intangible cultural heritage products. The second is to open up the Logistics services of "Cultural Special Line", having reduced the average transportation time of handicrafts from 45 days to 18 days. Thirdly, an AR real-scene display function was developed, allowing overseas buyers to virtually place large items such as rosewood furniture. As a result, the return and exchange rate was reduced by 26%.

2.3.2 The Platform-Based Overseas Expansion of Digital Content.

Tencent Music Entertainment Group has achieved breakthroughs in the Southeast Asian market through a dual-wheel drive of content cooperation and technology output. On the one hand, it has established joint ventures with local enterprises such as GMM Grammy in Thailand and Mojalu in Indonesia, introducing works by singers like Zhou Shen and Zhang Yixing[11]. On the other hand, output such technical support as "Immersive sound effects" and "Smart Playlist" etc., causing its international version of the App has ranked among the top three in the best-selling music application list in Malaysia for eight consecutive months. Iqiyi has established "Content Localization Center", Translating and adapting for different regions. For instance, the Thai version of "The Reincarnation of the Consort" has achieved over 100 million views on the True ID platform in Thailand.

2.4 Path of Industrial Integration

The cross-border integration of industries creates new growth points for cultural trade, forming the compound competitive advantage of "Culture +".

2.4.1 Digital Practice of Cultural and Tourism Integration.

Wuyi Mountain's construction "Smart Cultural Tourism Brain" Three major upgrades have been achieved: First, an AR tour guide system has been launched. Tourists can scan the real scene with their mobile phones to obtain cultural interpretations of the cliff carvings. The second is to build "Digital Museum of Tea Culture", Reproducing the tea-making techniques of the Song Dynasty by using holographic projection. The third is to develop "Wuyi Mountain Digital Commemorative Ticket", Integrating functions such as scenic spot tickets and NFT digital collectibles. In 2024, this system will drive a 15% year-on-year increase in

tourism revenue, with the per capita spending of overseas tourists rising to 286 US dollars[12].

2.4.2 Technological Empowerment in Cultural and Creative Manufacturing.

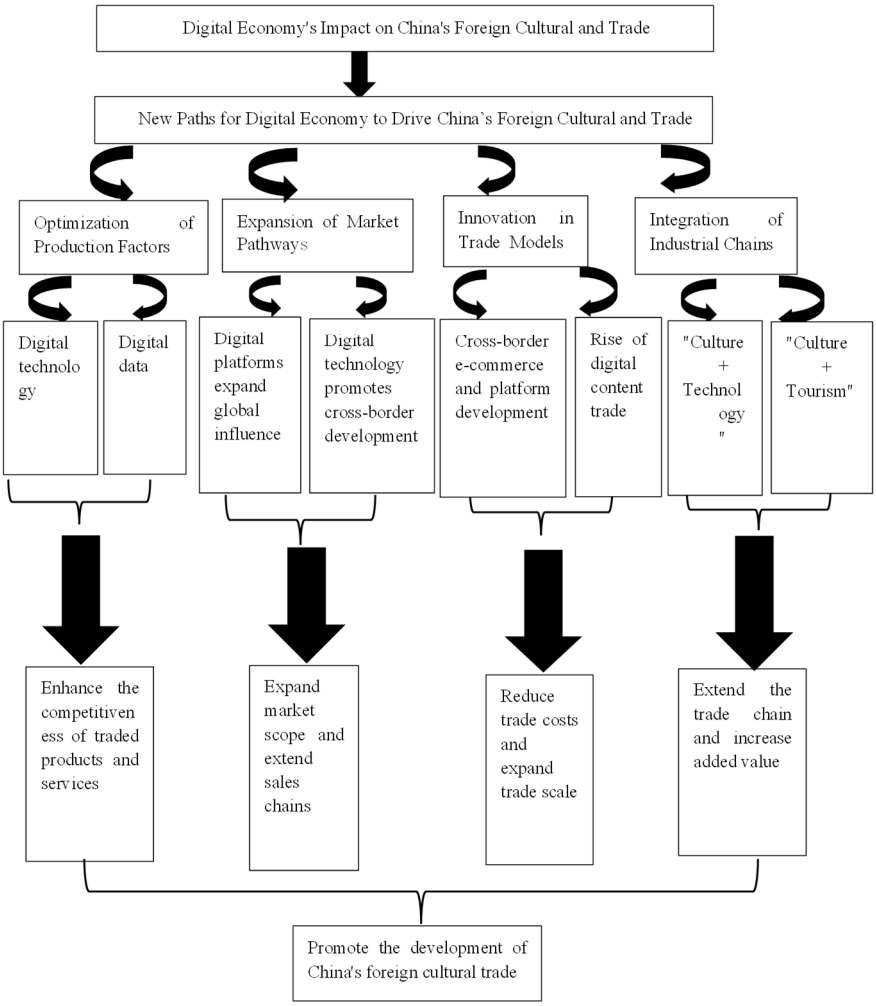

Fig. 1. The Pathway Diagram of the Impact of Digital Economy on China's Foreign Cultural Trade

The Fuzhou lacquerware industry has achieved a leap in its value chain through digital transformation: over 2,000 digital archives of cultural relics have been established by using 3D scanning technology, modern lacquerware patterns have been generated by relying on an AI design platform, industrial robots have been used to

complete the production of the base, and finally, the lacquerware is hand-painted by intangible cultural heritage artisans. This model has compressed the product development cycle from six months to 45 days, increased the unit price of high-end customized products by 3 to 5 times, and has entered the international market through European design galleries[13].

These specific practices demonstrate that the digital economy is systematically reshaping the competitive landscape of China's cultural trade with foreign countries from four dimensions: production factors, market channels, trade models, and industrial ecosystems, providing a quantifiable and replicable development path for cultural exports. Its influence path is shown in Fig. 1. In Fig. 1 the first path improves production efficiency, reduce resource consumption, and lower production costs, the second path break time and space constraints, achieve precise promotion, and guide consumption, the third path reduces intermediate links, lower transaction costs, and enhance national cultural influence, and the fourth path Optimize industrial ecosystem, create new cultural products, and promote international exchanges.

As in all, Fig. 1 shows the path diagram of the impact of the digital economy on China's foreign cultural trade. The influence path shown in Figure 1 indicates that the digital economy systematically promotes the development of China's foreign cultural trade by enhancing the international competitiveness of traded products and services, expanding market scope and extending sales chains reducing trade costs and expanding trade scale, and extending the trade chain and increase added value. To scientifically verify the practical effect of this path, the following will conduct a quantitative analysis of the impact on the digital economy through empirical methods.

3 Empirical Analysis on the Impact of Digital Economy on China's Foreign Cultural Trade

3.1 Data Sources

Due to the different data statistics methods of various official websites, the data cannot be completely consistent and there is a time lag in the data. The collection of some data is rather difficult. Therefore, the sample selected in this paper is the relevant data of the whole of China from 2010 to 2023 to explore the impact of the digital economy on China's foreign cultural trade. For partially missing data, to ensure the integrity and accuracy of the data, methods such as moving average and linear interpolation are used for processing. The data is sourced from the China Cultural and Related Industries Statistical Yearbook, the National Bureau of Statistics, the China Statistical Yearbook, the World Intellectual Property Organization (WIPO), and the World Trade Organization (WTO).

3.2 Research Hypotheses

Based on the previous text's analysis of the impact path of the digital economy on China's foreign cultural trade, the following three research hypotheses are proposed:

Hypothesis 1: The development level of the digital economy has a significant positive impact on the scale of China's foreign cultural trade. Hypothesis 2: The expansion of cultural trade channels and models by the digital economy can enhance the competitiveness of China's foreign cultural trade. Hypothesis 3: The digital economy stimulates international cultural consumption demand and promotes the development of China's foreign cultural trade.

$$\ln CCT_{it} = \partial_0 + \partial_1 \ln DE_t + \sum_{j=1}^{3} \partial_{1+j} \ln CV_{jit} + \mu_{it}$$

Among them, i represents trading partner countries and t represents the year. lnCCTit represents the natural logarithm of the foreign cultural trade volume between the i-th trading partner country and China in the t-th year. The natural logarithm lnDEt represents the development level of China's digital economy in the t-th year; lnCVjit represents the j-th control variable of the i-th trading partner country in the t-th year, including the level of economic development (lnGDPit), trade openness (lnTOit), and the level of intellectual property protection (IPRit). ∂_0 is the constant term, ∂_1, ∂_{1+j} is the coefficient of each variable, and μ_{it} is the random error term.

3.3 Data Measurement and Explanation

3.3.1 Explained Variable.

China's foreign cultural trade volume (lnCCTit) : It is measured by the natural logarithm of the total volume of China's foreign cultural products and services imports and exports.

3.3.2 Explanatory Variable.

The development level of the digital econom(lnDEt): This paper measures the development level of the digital economy by selecting indicators from three aspects: digital infrastructure, digital industry development, and digital technology application. The principal component analysis method is used to comprehensively process the weights of each indicator to obtain the comprehensive score of the development level of the digital economy, which is used to measure the development level of China's digital economy. For details, see Table 1.

Table 1. Index System for the Development Level of the Digital Economy

First-level indicators	second-level indicators	third-level indicators	indicator attributes
The development level of the digital economy	The digital infrastructure	the number of Internet access ports (in ten thousand)	positive
		The penetration rate of mobile phones (per 100 people)	positive
		The length of optical cable per unit area (kilometers per square kilometer)	positive

	The digital industry development	The number of informationized enterprises	positive
		The number of websites per 100 enterprises	positive
		The proportion of enterprises with e-commerce transaction activities	positive
		The transaction volume of e-commerce (in billions of yuan)	positive
		Software business revenue (in ten thousand yuan)	positive
	The digital technology applications	The intensity of investment in research and development funds	positive

3.3.3 Control Variables.

Economic development level GDP(in billions of yuan) : It is measured by the natural logarithm of GDP.

Degree of trade openness (TO) : It is measured by the ratio of the total volume of goods trade imports and exports to GDP.

Intellectual Property Rights protection level (IPR) : The level of intellectual property rights protection in China is measured by referring to the IPR protection indicators in the Global Innovation Index released by the World Intellectual Property Organization (WIPO).

3.4 Empirical Result Analysis

3.4.1 Descriptive Analysis.

Before conducting an in-depth analysis of the data, descriptive statistics should first be performed on each variable to understand the basic characteristics of the data. Table 2 presents the descriptive statistical results of relevant variables between China and its major trading partner countries from 2010 to 2023.

Table 2. Descriptive statistical results of Relevant Variables

variable	observed value	Mean	standard deviation	minimum value	maximum value
lnCCT	182	12.03	1.56	8.23	15.64
lnDE	182	3.25	0.52	2.14	4.37
lnGDP	182	13.87	1.24	10.56	16.78
lnTO	182	2.67	0.48	1.56	3.89
IPR	182	3.56	0.67	2.12	4.89

It can be seen from the above table that the average logarithm of China's foreign cultural trade volume is 12.03, indicating that the scale of China's foreign cultural trade is at a certain level during the sample period, but there are certain fluctuations, with a standard deviation of 1.56. The mean logarithmic value of the development level of the

digital economy is 3.25, indicating that China's digital economy has developed to a certain extent during this period, and there are certain differences among different years, with a standard deviation of 0.52. The mean logarithm of the economic development level is 13.87, indicating that China's overall economic strength is relatively strong. The standard deviation is 1.24, reflecting that the economic development varies in different years. The mean logarithmic value of trade openness is 2.67, indicating a relatively high degree of economic openness in China. The standard deviation is 0.48, suggesting that trade openness fluctuates in different years. The average level of intellectual property protection is 3.56, reflecting that China has reached a certain level in intellectual property protection. The standard deviation is 0.67, indicating that there are differences in the level of intellectual property protection in different years. Through descriptive statistical analysis, the basic situation of each variable was initially understood, laying a foundation for the subsequent regression analysis.

3.4.2 Regression Result Analysis.

Regression analysis was conducted using the constructed econometric model, and the results are shown in Table 3.

Table 3. Regression results of Relevant variables

variable	coefficient	standard error	t value	P value	[95% confidence interval]
lnDE	0.563***	0.125	4.504	0.000	[0.317,0.809]
lnGDP	0.345**	0.142	2.429	0.016	[0.065, 0.625]
lnTO	0.213**	0.095	2.242	0.026	[0.027, 0.400]
IPR	0.187**	0.086	2.174	0.031	[0.018, 0.356]
Constant term	1.256***	0.421	2.983	0.003	[0.431, 2.081]
R^2	0.763				
R^2 of the adjusted	0.742				
F value	36.324***				

Note: *** and ** respectively indicate significance at the 1% and 5% levels.

The regression results show that the coefficient of the digital economy development level (lnDE) is 0.563, which is significantly positive at the 1% level. This indicates that the digital economy development level has a significant positive impact on China's foreign cultural trade volume, verifying Hypothesis 1. Specifically, for every 1% increase in the level of digital economy development, China's foreign cultural trade volume will rise by 0.563%. This indicates that the development of the digital economy can effectively promote the expansion of China's scale of cultural trade with foreign countries. With the extensive application of digital technology in the production, dissemination and consumption of cultural products, the production efficiency of cultural products has been enhanced, production costs have been reduced, product forms have become more diverse and rich, and sales channels have been greatly expanded. As a result, more international market demands have been attracted, promoting the growth of China's cultural trade scale with foreign countries.

The coefficient of the economic development level (lnGDP) is 0.345, which is significantly positive at the 5% level, indicating that the improvement of China's economic development level has a positive promoting effect on foreign cultural trade. The improvement of economic development level means that the country will increase its investment in the cultural industry, enhance its technological research and development capabilities, and have a more vigorous market demand. All these factors help cultural enterprises improve product quality and innovation capabilities, expand international markets, and thereby promote the development of foreign cultural trade.

The coefficient of trade openness (lnTO) is 0.213, which is significantly positive at the 5% level, indicating that the improvement of trade openness is conducive to the development of China's foreign cultural trade. The improvement of trade openness enables China to better integrate into the global economic system, strengthen trade exchanges with countries around the world, lower trade barriers, and create more favorable conditions for the import and export of cultural products and services.

The coefficient of the level of intellectual property protection is 0.187, which is significantly positive at the 5% level, indicating that strong intellectual property protection can promote China's foreign cultural trade. Intellectual property protection can encourage cultural enterprises to innovate, safeguard their innovative achievements, increase the added value of cultural products, enhance their competitiveness in the international market, and thereby promote the development of foreign cultural trade.

For Hypothesis 2, although the model did not directly conduct regression verification on trade competitiveness, cross-border e-commerce platforms and social media marketing are ways for the digital economy to expand trade channels and models, and the development level of the digital economy has a positive impact on trade volume. To a certain extent, this indicates that expanding channels and models can enhance trade competitiveness, indirectly verifying Hypothesis 2. Similarly to Hypothesis 3, since the rise of digital content consumption and the expansion and innovation of consumption scenarios are both included in the scope of digital economic development, the positive impact of the level of digital economic development on trade volume in the model indirectly verifies Hypothesis 3.

In conclusion, from the perspective of the overall goodness of fit of the model, R^2 is 0.763, and the adjusted R^2 is 0.742, indicating that the model has a good fitting effect on the data and can better explain the impact of factors such as the development level of the digital economy on China's foreign cultural trade volume. The F value is 36.324, which is significant at the 1% level, indicating that the model as a whole is significant.

3.4.3 Robustness test.

To ensure the reliability and stability of the regression results, the substitution variable method was adopted for robustness testing, and the Digital Economy Development Index (DEI) was used to replace the Digital Economy development level (lnDE). The digital economy development Index is a robustness test result recalculated by using principal component analysis to comprehensively consider indicators from three

dimensions: digital infrastructure construction, digital technology application, and digital industry development. As shown in Table 4.

Table 4. Robustness test results of each variable

variable	substitution variable method
DEI	0.485***(0.112)
lnDE	
lnGDP	0.324**(0.138)
lnTO	0.205**(0.092)
IPR	0.176**(0.083)
Constant term	1.325***(0.415)
R^2	0.756
R^2 of the adjusted	0.735
F value	34.215***

Note: The errors in parentheses are standard errors. *** and ** indicate significant at the 1% and 5% levels, respectively.

The results of the robustness test show that the coefficient of the digital economy-related variable (DEI or lnDE) remains significantly positive at the 1% level, and the magnitude of the coefficient is similar to that of the benchmark regression result. The coefficient signs and significance of other control variables have not changed significantly either. This indicates that the positive impact of the development level of the digital economy on the scale of China's foreign cultural trade is reliable. Based on the results of the comprehensive regression analysis and robustness test, targeted suggestions will be put forward next.

4 Suggestions for the Development of China's Foreign Cultural Trade under the Background of the Digital Economy

4.1 Improve Digital Infrastructure Construction by Region

It is suggested that the government enhance stratified and categorized investment in digital infrastructure, especially implementing differentiated layouts in areas such as network coverage, transmission quality, and cross-border data connectivity. The eastern region should further optimize the high-speed network environment, expand network coverage, enhance transmission speed and stability, benchmark against international advanced standards, and support the development of industries with high network requirements such as digital creativity and film and television production. It is advisable to consider building multiple dedicated cross-border data channels, cooperate with international communication enterprises to optimize the international network layout, reduce latency and transmission costs, and provide efficient channels for the overseas expansion of digital cultural products. The central region should focus on strengthening the network coverage of cultural industry clusters, improving the network quality of the parks and their surrounding areas, and meeting the daily operation and

innovation needs of enterprises. Meanwhile, relying on the Belt and Road Initiative, efforts can be made to promote network connection with the eastern coastal areas and countries along the routes, build cross-border data channels, reduce transmission costs and delays, and facilitate the "going global" of characteristic cultural products. The western regions should take network coverage as a key task, give priority to solving the network access problems in remote areas and cultural industry zones, gradually improve network transmission conditions, provide basic support for the digitalization and internationalization of local cultural resources, and promote the trade of resource advantages.

4.2 Enhance the Technological Content of Cultural Products and Improve the Trade Structure

To narrow the gap with the international advanced level in technology application and promote the transformation of cultural products towards high added value, it is suggested that efforts be made in the following aspects: First, introduce and absorb advanced technologies. Encourage cultural enterprises to introduce advanced equipment and technologies such as high-resolution filming, intelligent editing and digital printing to enhance production quality and efficiency. The second is to enhance independent research and development and innovation. Establish a special research and development fund to support enterprises in carrying out cultural and technological integration and innovation, and encourage the development of products and services with independent intellectual property rights. The third is to strengthen the construction of scientific and technological talent teams. Support enterprises in establishing cross-disciplinary R&D teams, deepen cooperation with universities and research institutions, carry out targeted talent cultivation, and consolidate the talent foundation for technology empowerment. Fourth, comprehensively promote digital transformation. Promote the digital transformation of traditional cultural products, develop digital cultural products with interactive and personalized features, and enhance market competitiveness.

4.3 Focus on the Construction of Cultural Brands and High-Quality Cultural Services to Enhance Export Competitiveness

On the one hand, create high-quality cultural services. First, in the content creation stage, we should deeply explore traditional cultural resources, promote the integration of traditional opera, intangible cultural heritage and other elements with digital technology, and develop online immersive experience projects. Through the meticulous production of high-definition videos, the exquisite skills and unique charm of traditional Chinese opera performances are comprehensively presented. Develop online interactive programs to enable overseas audiences to participate in the process of enjoying traditional operas as if they were there, providing them with a brand-new immersive viewing experience. Second, we should innovate service models through Internet platforms, improve the after-sales links of cultural services and establish and

improve customer feedback mechanisms to enhance the cultural service experience of overseas consumers.

On the other hand, systematically promote brand building. Combining international market demands with Chinese cultural characteristics, clarify brand positioning and shape a distinctive cultural brand image. Actively utilize social media, international cultural exhibitions and other platforms to carry out brand promotion. Enhance the brand's international popularity and influence through brand stories, visual content, offline activities and other means. Comprehensively showcase the charm and strength of Chinese cultural brands, and enhance their popularity and influence in the international market. The creation of high-quality cultural services and the emphasis on cultural brand building are an organic whole that complement and promote each other.

4.4 Enhance the State's Support for New Forms and Models of the Digital Cultural Industry

It is suggested that a multi-level support system be established to promote the development of new business forms such as VR/AR and the metaverse. Specifically as follows: First, strengthen policy guidance. Introduce special supportive policies for new forms of digital culture, offer preferential treatment in terms of taxation and land use, and establish a policy consultation and service mechanism that suits new business models. The second is to increase financial support. Establish a digital cultural industry innovation fund to focus on supporting technological research and development, product innovation and international market expansion. It is possible to explore ways such as government procurement, research and development subsidies, and overseas expansion subsidies to reduce the risks of enterprise innovation and market expansion. The third is to build a collaborative service platform. Promote the establishment of a collaborative innovation platform involving government, industry, academia, research and application, support the construction of digital culture research and development centers, hold innovation and entrepreneurship competitions, facilitate technology transformation, project incubation and market connection, and form a virtuous industrial ecosystem. Ultimately, a virtuous development pattern featuring government guidance, market dominance and enterprise as the main body will be formed. In conclusion, the government's increased policy and financial support for the development of the digital cultural industry will help promote the digital transformation of cultural products, enhance their market competitiveness, and facilitate the development of the cultural industry and the export of cultural products [14]. Through the above measures, China can systematically promote the optimization of its foreign cultural trade structure and the enhancement of its competitiveness, achieving high-quality development in the global cultural trade landscape.

5 Conclusion

This paper first elaborates on the development environment of China's foreign cultural trade under the background of the digital economy, sorts out the current research status

at home and abroad and points out the deficiencies of the existing research. Then, it focuses on analyzing the impact of the digital economy on China's foreign cultural trade through four paths: optimization of production factors, market expansion, innovation of trade models, and industrial integration. Then, an empirical analysis was conducted based on the relevant data from 2010 to 2023, verifying that the development level of the digital economy has a significant positive impact on the scale of China's foreign cultural trade. Moreover, the economic development level, trade openness, and the level of intellectual property protection also have a positive promoting effect on it. The robustness test further confirmed the reliability of the conclusion. Finally, based on the research results, Suggestions for promoting the high-quality development of China's foreign cultural trade were put forward from aspects such as improving digital infrastructure, enhancing the technological content of cultural products, strengthening cultural brand building, and intensifying policy support. The main conclusion of this article is: The digital economy can effectively promote the development of China's cultural trade with foreign countries through multiple paths. Its development level is significantly positively correlated with the scale of cultural trade with foreign countries. Meanwhile, factors such as economic development, trade openness, and intellectual property protection can also contribute to the improvement of cultural trade with foreign countries. Improving relevant infrastructure, enhancing product quality and brand strength, and strengthening policy support It is the key to promoting the sustained development of China's cultural trade with foreign countries under the background of the digital economy.

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