

Research Article

Study on the Influence of Reform of Cultural Administrative System on the Upgrading of Urban Industrial Structure

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This paper aims at identifying the causal relationship between the reform of the cultural system and the upgrading of industrial structure, revealing the causal relationship between the reform of the cultural system and the upgrading of industrial structure, which is of great significance for promoting the reform of the cultural system and the upgrading of industrial structure. The impact of cultural administrative reform on industrial structure upgrading is empirically tested using panel data from 261 prefecture-level cities in China from 2001 to 2017. The double difference model and PSM-DID method are used. This includes conducting placebo tests and examining the robustness of empirical findings using other methods. The findings indicated that (1) the influence coefficient of the cultural administrative system reform on industrial structure upgrading is positive and passed the significance level test, indicating that the cultural administrative system reform significantly promoted industrial structure upgrading, and on average, it can improve the level of the urban industrial structure by 11.81 percent. (2) Theoretical analysis of the mechanism demonstrates that the innovation level acts as a link between cultural administrative system reform and industrial structure upgrading, implying that cultural administrative system reform promotes industrial structure upgrading by stimulating the innovation level of cultural enterprises. (3) The results of the heterogeneity analysis indicate that the influence of cultural administrative reform on industrial structure upgrading is highly regionally and economically differentiated. The higher the economic level of the local community, the more effective the promotion effect on industrial structure upgrading. The reform of the cultural administrative system has a greater impact on industrial structure upgrading in the eastern region than in the central and western regions. On the basis of the foregoing research findings, this paper makes some policy recommendations for releasing the overall system reform dividend based on the cultural system and promoting regional industrial structure upgrading.

1. Introduction

In May 2021, General Secretary Xi Jinping stressed that “the development potential of local characteristic industries is huge. We should be good at exploiting and making use of local superior resources, strengthen the protection of local high-quality varieties, promote the organic combination of production, education, and research, and coordinate the development of industry, science, and technology, and culture.” The “14th Five-Year Plan” emphasizes the importance of improving the cultural management system, as well as the production and operation mechanisms, in order to increase the efficiency of cultural governance. Through its economic permeability and expansion, the industry can not only improve people’s quality of life and happiness but also

contribute to cultural and economic development [1, 2]. To further support the development of cultural enterprises and institutions, the traditional mode of management by a single administrative order should be abandoned, and cultural enterprises and institutions should be granted independent management authority to compete freely in the market. The State Council initiated the Cultural Administrative System Reform, which aims to boost cultural enterprises’ and institutions’ capacity for innovation and market participation, as well as to strengthen cultural soft power [3, 4]. China has established three batches of pilot cities for the Reform of Cultural Administrative System since 2003. The cultural administrative system has been reformed from a mode of traditional management to one of scientific development. With the pilot scope of the cultural administrative system

reform continuing to expand, it is critical to scientifically evaluate the policy effect of the cultural administrative system reform on industrial structure upgrading. On the one hand, the reform of the cultural system has promoted the development of the cultural industry in the pilot cities, thus changing the internal structure of the industry; on the other hand, the reform of the cultural system has promoted cultural innovation, which is conducive to providing a high-quality innovation environment for enterprise innovation. To sum up, scientific identification of the relationship between the reform of the cultural system and the upgrading of industrial structure is a new research topic facing the academic circle. The purpose of this paper is to assess the impact of the Cultural Administrative System Reform on industrial structure upgrading and its mechanism, with the goal of answering the following three questions: to begin, how can the impact of the Cultural Administrative System Reform on industrial structure upgrading be quantified? Second, how can the mechanism of cultural administrative system reform be clarified in terms of industrial structure upgrading? Third, how can the spatial heterogeneity of the pilot policy effect of cultural administrative system reform be explored? The answers to the preceding questions serve to summarize the experience of the pilot construction of the cultural administrative system and to provide experience for expanding the reform of the cultural administrative system and promoting high-quality cultural industry development.

Following a review of the existing literature, this paper determines that the existing literature can be classified into the following three categories based on the nature of the research: the first type of research examines the impact of cultural administrative system reform on cultural innovation. Reform of the cultural administrative system is believed to be the primary driver of cultural innovation and economic development [5], and some scholars believe that cultural administrative reform and deregulation can effectively stimulate the market economy's vitality and propel long-term economic growth [6–9]. According to other scholars, loosening the system through cultural administrative reform will directly affect the development of cultural industries, increase economic output, and promote regional economic structure optimization [10, 11]. Additionally, empirical evidence indicates that cultural administrative reform has a significant positive effect on regional economic growth [12] and that the cultural industry cluster can help drive regional tourism economic growth [13]. Second, pay close attention to the mechanism by which cultural industries develop in relation to economic development. According to some scholars, cultural administrative reform results in an innovation-driven effect via the prosperity and development of the cultural industry [14, 15]. However, another type of scholar discovered that culture can influence economic growth by increasing total factor productivity, influencing the allocation of production factors, and influencing the decision-making of micromarket participants [16–18]. Additionally, some studies have discovered that culture can stimulate the growth of cultural industries and related industries, as evidenced by the fact that the development of cultural industries can boost GDP, stimulate the cultural

tourism economy, and ultimately promote economic development [15]. From an international trade perspective, it is believed that culture can promote economic development by driving international trade and that cultural output is a critical factor in promoting exports and the economic development levels of countries along the route [19]. Cultural differences can help a country's exports and have a positive effect on export trade [20]. The third category is concerned with the policy implications of the cultural administrative system reform. Certain scholars focus on the policy implications of the cultural administrative system reform and regard it as a quasi-natural experiment. While some scholars are concerned with the causal relationship between cultural administrative system reform and economic growth [12], others are concerned with the impact of cultural administrative system reform on tourism development.

While the existing literature has established a certain research foundation for this study, the following issues remain: to begin, let us consider the endogenous problem of economic variables. It demonstrates primarily that there may be a bidirectional causal relationship between culture and economic growth, as well as endogenous problems caused by missing variables, which complicates deriving the net effect. Cultural development promotes industrial structure upgrade, and industrial structure upgrade improves the environment for cultural innovation. As a result, there is an endogenous problem of reverse causality between the development of cultural industry and industrial structure upgrading. Second, while existing research has examined the impact of cultural administrative system reform on regional economic growth [21, 22], there is no literature on the effect of cultural administrative system reform on industrial structure upgrading. Due to the short duration of existing studies, there is a dearth of in-depth analysis of the long-term dynamic effects of cultural administrative system reform [23]. A portion of the research examines the impact of cultural administrative system reform on the tourism economy, but not the industrial structure [24]. Third, there have been studies on industrial structure upgrading, with a particular emphasis on the impact of high-speed railways [25], civilized city selection [26], the belt and road initiative [27], technology and finance [28], and the China-Europe train [29]. Few scholars have examined its impact on industrial structure modernization from the perspective of cultural administrative system reform.

This paper will construct the research framework from the following three aspects: first, this paper is the first to examine the effect of institutional loosening on industrial structure upgrading through the lens of "cultural administrative system reform" and to theoretically analyze the internal mechanism of cultural administrative system reform on industrial structure upgrading. Second, because the cultural administrative system reform is an exogenous policy shock, it provides ideal conditions for investigating the causal relationship between cultural administrative system reform and industrial structure upgrading. This paper employs the double-difference method to precisely determine the causal relationship between cultural administrative system reform and industrial structure modernization.

Third, the mechanism and regional heterogeneity of the effect of cultural administrative system reform are investigated on industrial structure upgrading.

The rest of this paper is arranged as follows: the second part is the institutional background and theoretical analysis; the third part is the research design and data description. The fourth part is empirical analysis; the fifth part is the influence mechanism analysis, and the sixth part is the research conclusion and policy suggestion.

2. The Institutional Background and Theoretical Analysis

2.1. Institutional Background. The cultural administrative system reform adjusts the original single administrative management mechanism in order to liberate the management vitality of cultural enterprises and institutions, encourage relevant enterprises to compete in the market, and promote the high-quality development of the cultural industry. In other words, the reform of the cultural administrative system abolishes the traditional “imperative” management mode, promotes the modernization of cultural enterprise and enterprise management modes, fosters vital innovation, and ultimately establishes a cultural industry pattern based on the integration of culture, science, and technology. The National Reform of Cultural Administrative System Pilot Work Conference, held in Beijing in June 2003, officially announced the start of China’s cultural administrative system reform pilot work. By 2020, three rounds of cultural administrative system reform pilot units would have been launched. The reform of the cultural administrative system is primarily concerned with three aspects: to begin, make full use of financial and tax resources to assist cultural industry development. Pilot areas for cultural administrative reform will increase support for the development of cultural industries and establish special funds to compensate for the deficiencies caused by a lack of development funds. To encourage the development of cultural industries, tax incentives such as discount interest and subsidies are adopted. Second, streamline the approval process and boost cultural enterprises’ operational efficiency. The operational efficiency of cultural enterprises can be increased by reducing administrative examination and approval links and simplifying examination and approval procedures. Third, remove financial constraints on cultural enterprises, maximize the financing function of multilevel capital markets, and provide financial support for cultural enterprises’ technological innovation.

2.2. Theoretical Analysis. The influence mechanism of cultural system reform on industrial structure upgrading is shown in Figure 1. The cultural administrative system reform modifies the existing and centralized administrative management mode, transforming cultural enterprises into market players capable of self-sufficiency and competition. The benefit of the reform is that cultural enterprises and institutions will be encouraged to innovate by increasing their market competitiveness, thereby promoting industrial

structure upgrading. Additionally, reforming the cultural administrative system has the potential to not only absorb multicapital and revitalize the market but also to alter the traditional investment mode of cultural enterprises and optimize their investment and consumption structures [30]. The reform of the cultural administrative system removed barriers to entry, and more enterprises entered the cultural market, which increased market competition in the cultural market, increased the market competitiveness of cultural enterprises, and aided in the enhancement of enterprises’ innovation capacity. On the one hand, the entry of cultural enterprises can not only provide capital support for cultural enterprises but also ensure the development of cultural industries. The reform of the cultural administrative system strengthens support for cultural enterprises, alleviates financial constraints on enterprises, encourages technological innovation, and provides technical assistance for industrial structure upgrading. On the other hand, the entry of high-quality cultural enterprises into the market introduces advanced management practices, technology, and business philosophy, which can not only serve as a demonstration effect but also exert competitive pressure on established cultural enterprises, compelling them to transform and upgrade. This paper proposes the following:

Hypothesis 1. Reforming the cultural administrative system has the potential to significantly boost industrial structure upgrading in pilot areas.

The cultural administrative system reform, as the internal driving force of innovation, is the primary force behind industrial structure upgrading and plays a critical role in promoting industrial structure upgrading. As a critical component of promoting cultural enterprise development, reforming the cultural administrative system enables cultural enterprises to overcome entry barriers, thereby facilitating the orderly flow of cultural innovation elements such as capital, talent, and technology and optimizing the allocation of production factors in the field of cultural industries. In the cultural market, innovative elements frequently flow from low- to high-productivity enterprises, and the reform of the cultural administrative system has transformed the efficiency of cultural production elements allocation into a dynamic process of continuous improvement in the direction of higher-level production elements. As a critical carrier and realization subject of knowledge, innovation elements facilitate learning exchange and knowledge sharing between cities via the innovation cooperation platform established by the Cultural Administrative System Reform, which effectively promotes knowledge dissemination and innovation agglomeration. The reform of the cultural administrative system has an effect on the technological advancement of the industrial structure. On the one hand, the reform of the cultural administrative system has resulted in the consolidation of tertiary industry, particularly the cultural industry, into pilot cities that can not only promote technological learning among different enterprises within the industry through cooperative innovation and technology trade, thereby promoting technology diffusion within the industry [31], but

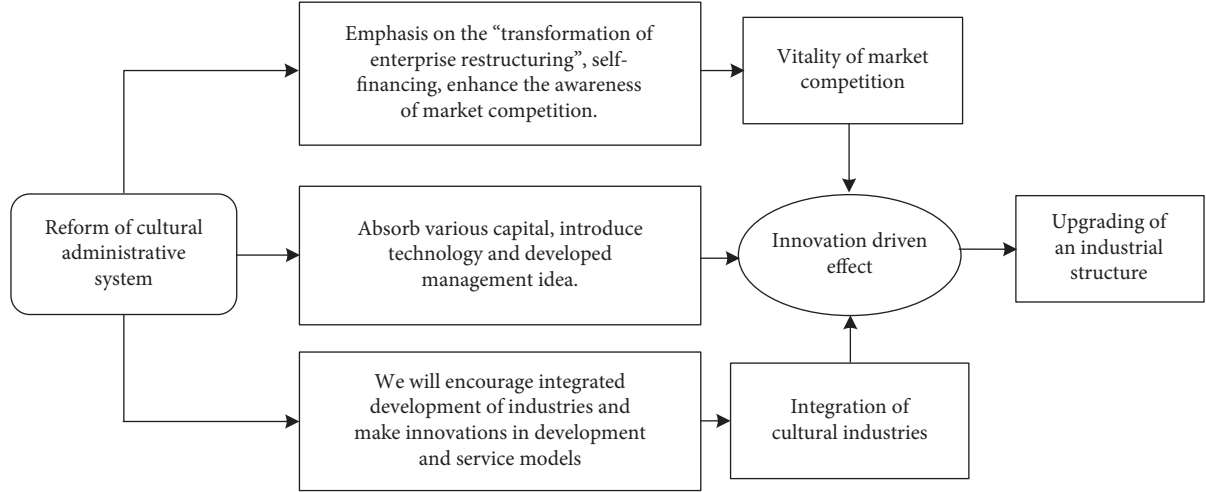


FIGURE 1: The influence mechanism of reform of cultural administrative system on industrial structure upgrading.

also raise the technological level of the entire industrial chain through the use of technology. On the other hand, technological innovation can contribute to the “win-win” development of cultural industries and the modernization of industrial structures. In terms of cultural industry development, the cultural administrative system reform aims to eliminate institutional and institutional impediments to cultural enterprise development, promote the free flow and optimal allocation of cultural production factors, and reinforce the critical role of technological advancement in improving production efficiency and cultural industry development. In terms of industrial structure modernization, technological advancement is widely regarded as a critical factor in promoting industrial structure modernization [32]. Thus, cultural administrative reform can contribute to industrial structure upgrading by stimulating technological innovation in cultural enterprises; this transmission mechanism is referred to in this paper as the technological innovation effect. On this basis, this paper advances the following research hypotheses:

Hypothesis 2. Reform of the cultural administrative system will promote the upgrading of industrial structure in pilot cities through technological innovation.

3. Research Design and Data Description

3.1. Research Design. According to the list of pilot cities published by the Ministry of Finance, the General Administration of Customs, and the State Taxation Administration of the People’s Republic of China, by the end of 2017, 111 prefecture-level cities in China had been piloted in two batches, providing a good quasi-natural experiment for adopting the double-difference method. Due to the long-term nature of industrial structure upgrading, this paper focuses on 89 newly added regions in March 2006. Tianjin, Chaohu, Xiangfan, Xiantao, Wuxue, Wenchang, Baoting Li and Miao Autonomous County, Tongren, Qiandongnan, Dali, Chuxiong, Diqing, Honghe, and Hainan Tibetan

Autonomous Prefecture were excluded from the second batch of pilot cities due to a lack of data. As a result, this paper uses 75 prefecture-level cities as the experimental group and 186 prefecture-level cities as the control group to construct policy variables for cultural administrative system reform. The fixed effect model with the double difference is used in this paper to assess the impact of cultural administrative system reform on industrial structure upgrading. The particular model is as follows:

$$\text{Indu}_{it} = \beta_0 + \beta_1 \text{Culreform} + \sum_{N=1}^N \gamma_N X_{it} + \eta_t + \mu_i + \varepsilon_{it}, \quad (1)$$

where Indu_{it} is the explained variable, which indicates the upgrading level of the industrial structure of the i th city in the t year. This paper selects the added value of the tertiary industry to measure it compared with the added value of the secondary industry. η time fixed effect, μ_i is the individual fixed effect of each city, X_{it} is the control variable, and Culreform represents the policy variable of the cultural administrative system, which is the core explanatory variable of this paper. β_1 indicates the net impact of the reform of the cultural administrative system on the upgrading of industrial structure. If β_1 is positive, it means that the reform of the cultural administrative system helps to promote the upgrading of industrial structure; otherwise, it has an inhibitory effect. The main variables and specific calculation methods are shown in Table 1.

3.2. Sample Data. (1) Variable that can be explained: industrial structure modernization. As the tertiary industry’s development reflects its capacity to provide high-quality services, this paper uses the added value of the tertiary industry as a proxy for industrial structure upgrading by examining its historical evolution [33]. (2) The fundamental explanatory variables. The paper’s central explanatory variable is the reform of the cultural administrative system. According to the list of pilot cities for cultural administrative reform published by the Ministry of Finance, the General

TABLE 1: Main variables and specific calculation methods.

	Variable name	Measurement method
Explained variable	Industrial structure upgrading (indu)	Proportion of added value of secondary industry to added value of tertiary industry
Core explanatory variable	Reform of cultural administrative system (Culreform)	Virtual variable (0, 1)
Control variable	Scale of government (Ingov)	The local fiscal budget revenue (10,000 yuan) takes logarithm
	Economic development level (Inpergdp)	Logarithmic gdp per capita
	Education expenditure level (Inedu)	Education expenses (10,000 yuan) take logarithm
	Scientific and technological level (Insci)	Scientific expenses (ten thousand yuan) take logarithm
	Technical level (Insci)	The total amount of patents granted is logarithmic

Administration of Customs, and the State Taxation Administration of the People's Republic of China, the interactive items of two groups of virtual variables, period and group, are used to quantify the policy variables affecting cultural administrative reform in this paper. Period denotes the fictitious variable of time, which is 0 prior to and following cultural administrative system reform, and 1 following implementation. Between groups, the group represents the virtual variable, and the pilot city for cultural administrative reform is set to 1, while the pilot city for cultural administrative reform is set to 0. (3) Variables under control. According to the existing literature, this paper chooses as control variables for industrial structure upgrading the variables of government scale, economic development level, education expenditure level, scientific research development level, and scientific and technological research and development level. (1) The government scale, which influences industrial structure upgrading by influencing the construction of local industrial infrastructure, is defined as the income in the local financial budget and is treated using the natural logarithm. (2) There is a positive correlation between the level of economic development, the level of economic development, and the upgrading of industrial structure. The per capita GDP is used to quantify it in this paper, and the natural logarithm is used to compute it; (3) the level of education expenditure, which has an effect on industrial structure upgrading through increased human capital, is measured and treated using the natural logarithm. (4) The level of scientific and technological research and development, which fuels the growth of enterprises and industries, is a critical factor in industrial structure upgrading. The expenditure on scientific endeavors is quantified and treated in this paper using the natural logarithm; (5) on a technical level, innovation stimulates industrial vitality, thereby promoting industrial upgrading. This paper quantifies it by examining the total number of patent authorizations. Table 1 details the variable selection and calculation process.

3.3. Data Description. The impact of China's cultural administrative reform on industrial structure upgrading is examined in this paper using panel data from 261 cities in China between 2001 and 2017. The variables used in this paper, such as the size of government, the level of economic development, the level of education spending, the level of

scientific research development, and the level of scientific and technological research and development, are all drawn from the China Urban Statistical Yearbook over time. Descriptive statistics of table variables are shown in Table 2.

4. Empirical Results and Robustness Test

4.1. Parallel Trend and Dynamic Effect Test. The premise of double difference estimation is the parallel trend test. A critical assumption for policy evaluation of cultural administrative system reform is that the experimental and control groups follow a parallel trend; in other words, the experimental and control groups' evolution trends are identical when the policy effect is unaffected by the policy. Additionally, with the implementation of the cultural administrative system reform pilot policy and the enhancement of policy supporting measures, the policy's dynamic effect gradually manifests. As a result, it is necessary to test the dynamic effect of cultural administrative system reform, with the objective of analyzing the dynamic effect of cultural administrative system reform on industrial structure upgrading. The parallel trend and dynamic effect are examined in this paper using the event research method [34], and the following regression models are established:

$$\text{Indu}_{it} = \theta_0 + \sum_{\tau=-3}^{\tau=-1} \theta_{\tau} \text{pre} + \theta_1 \text{current}_0 + \sum_{\eta=1}^{\eta=12} \theta_{\eta} \text{post} + \theta_N \sum_{N=1}^N \text{control} + \mu + \gamma + \nu, \quad (2)$$

where Indu_{it} is the explained variable, which indicates the upgrading level of the industrial structure of the i th city in the t year. pre and post are counterfactual virtual variables of the policy of reforming the cultural administrative system. When the pilot policy of reform of the cultural administrative system was approved in τ years, pre was 1, and when the pilot policy of reform of the cultural administrative system was approved in η years, post was 1, and control was the control variable. In order to analyze the parallel trend of reform of cultural administrative system policy, this paper drew Figure 2. According to Figure 2, we found that the regression coefficient of pre before the implementation of the pilot policy of Reform of Cultural Administrative System is not significant, which shows that there is no significant difference in the industrial structure upgrading between the

TABLE 2: Descriptive statistics of table variables.

Variable	Sample size	Mean	Standard deviation	Minimum value	Maximum
Indu	4437	0.855	0.435	0.094	5.34
Culreform	4437	0.216	0.412	0	1
Lnpergdp	4437	9.977	0.883	4.595	13.156
Lngov	4437	12.985	1.494	7.193	18.012
Lnedu	4437	9.449	1.745	0.945	15.211
Lnsoci	4437	11.347	2.603	1.386	16.082
Lnsoci	4437	6.113	1.804	0.693	11.578

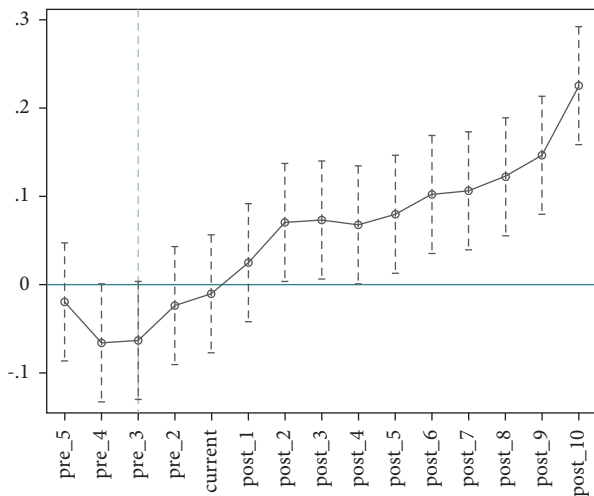


FIGURE 2: Parallel trend diagram of reform of the cultural administrative system.

experimental group and the control group. In terms of the policy effect's dynamic evolution, the regression coefficient of post was positively significant in the second year following the reform of the cultural administrative system, and the significance level of the regression coefficient increased year by year throughout the sample investigation period, indicating that the reform of cultural administrative system significantly promoted industrial structure upgrading, and it passed the parallel trend test.

4.2. Results of Benchmark Regression. The two-way fixed effect model is used in this paper to assess the effect of cultural administrative system reform on industrial structure upgrading (the regression results are shown in Table 3). In Table 3, models 1 and 2 do not account for the time fixation and individual fixation effects, whereas models 3 and 4 account for the time fixation and individual fixation effects, and model 4 includes control variables. The regression results for model 1 indicate that the influence coefficient of cultural administrative system reform on industrial structure upgrading is 0.1541, which passes the 1% significance level test, indicating that the cultural administrative system reform has significantly facilitated industrial structure upgrading in pilot areas. After controlling for control variables and the time and individual fixing effects, the influence of cultural administrative reform on industrial structure upgrading is reduced. The influence coefficient of

the cultural administrative system reform on industrial upgrading decreased from 0.1541 in Model 1 to 0.1181 in Model 4, indicating that other factors were effectively controlled, and the cultural administrative system reform effectively promoted industrial upgrading in pilot areas and the development of service industries characterized by cultural industry. This is largely because the reform of the cultural administrative system revitalizes institutional vitality, unifies the system, and fosters the growth of the cultural industry. As a result, Hypothesis 1 has been established.

4.3. Robustness Test. To ensure the robustness of the effect of cultural administrative reform on industrial structure upgrading, this paper will consider a series of robustness tests, including the province-time joint fixed effect test and the PSM-DID test.

4.3.1. Province-Time Joint Fixed Effect. The impact of cultural administrative reform on industrial structure upgrading is influenced by the heterogeneity of economic development and the heterogeneity of implementation time in cultural reform pilot areas, both of which have a direct effect on the robustness of causality identification (Table 4). After adjusting for province-time fixed effects, the influence coefficient of cultural administrative system reform on industrial structure upgrading is 0.0893, which passes the 1% significance level test. When the province-time combined fixed effect is considered, the regression coefficient for the reform of the cultural administrative system decreases slightly, but there is no discernible difference with the benchmark result, indicating that the research has a high degree of robustness.

4.3.2. PSM-DID Robustness Test. Generally, the pilot area for cultural administrative system reform is not chosen arbitrarily; it is determined by the level of tourism development, scenic spots and historical sites, natural scenery, and other factors in the pilot area. As a result, this paper uses the tendency score matching method to create a treatment group and a control group for the cultural administrative system reform and then computes the average treatment effect between groups. The matching processing variable is whether the city is designated as a pilot city for cultural administrative system reform, and the covariates include government size (Lngov), economic development level (Lnpergdp), education expenditure level (Lnedu), scientific

TABLE 3: Benchmark regression results.

Explanatory variable	1 model	2 model	3 model	4 model
Culreform	0.1541*** (9.831)	0.1731*** (10.588)	0.1376*** (8.290)	0.1181*** (7.323)
Control variable	Uncontrolled	Control	Uncontrolled	Control
Time fixed effect	Uncontrolled	Uncontrolled	Control	Control
Individual fixation effect	Uncontrolled	Uncontrolled	Control	Control
Constant term	0.8220*** (112.717)	0.8256*** (163.785)	1.8555*** (17.931)	4.1965*** (13.628)
Observed value	4437	4437	4437	4437
R ²	0.021	0.094	0.765	0.786

Note. (1) The standard deviation in brackets, ***, and *** are significant at 10%, 5%, and 1% significance levels, respectively.

TABLE 4: Results of controlling the fixed effect of province-time.

Explanatory variable	(1)	(2)	(3)
Culreform	0.1731*** (10.588)	0.1181*** (7.323)	0.0893*** (4.729)
Control variable	YES	YES	YES
Time fixed effect	NO	YES	YES
Individual fixation effect	NO	YES	YES
Province x time	NO	NO	YES
Constant term	1.8555*** (17.931)	4.1965*** (13.628)	2.3104*** (15.190)
Observed value	4437	4437	4352
R ²	0.094	0.786	0.528

Note. (1) The standard deviation in brackets, ***, and *** are significant at 10%, 5%, and 1% significance levels, respectively.

TABLE 5: PSM-DID regression results.

Explained variable	1 model	2 model	3 model	4 model
Culreform	0.1517*** (9.666)	0.1358*** (8.193)	0.1713*** (10.485)	0.1169*** (7.253)
Control variable	NO	NO	YES	YES
Time fixed effect	NO	YES	NO	YES
Individual fixation effect	NO	YES	NO	YES
Constant term	0.8213*** (112.642)	0.8247*** (164.461)	1.8557*** (17.560)	4.2085*** (13.577)
Observed value	4417	4417	4417	4417
R ²	0.021	0.765	0.093	0.786

and technological research and development level (Insci), and innovation level (Insci). The paper employs a first-order nearest neighbor matching algorithm based on the Kernel function (see Table 5). According to the regression results in Table 5, the effect of cultural administrative reform on industrial structure upgrading was 0.1169 when control variables were included, and the time fixed effect and individual fixed effect were controlled, passing the 1% significance level test. This research conclusion is consistent with previous regression results, indicating that it is extremely robust.

4.4. Placebo Test. To ensure that the impact of cultural administrative reform on industrial structure upgrading is random, this paper uses the placebo test [3], randomly selects the treatment and control groups, randomly selects 500 times, randomly selects some cities as the experimental group for cultural administrative reform and other cities as the control group, and estimates using the double-difference method. If the influence of cultural administrative system reform on industrial structure upgrading fails the significance test, it means that cultural administrative system reform has an effect on industrial structure upgrading (see Table 6). According to Table 6, we found that there was a

significant difference between the results of the placebo test and benchmark regression. As a result, random factors had no effect on industrial structure upgrading, indicating that the reform of the cultural administrative system had a significant effect on industrial structure upgrading.

5. Impact Mechanism and Heterogeneity Analysis

This paper concludes that reforming the cultural administrative system can significantly aid in the upgrading of industrial structure; however, what is the mechanism by which cultural administrative system reform can aid in industrial structure upgrading? Is there spatial heterogeneity in the effect of cultural administrative reform on the upgrading of industrial structure?

5.1. Intermediary Effect Model. According to the theoretical mechanism analysis mentioned above, this paper thinks that the reform of the cultural administrative system has an impact on the upgrading of industrial structure through technological innovation. To verify this mechanism, the empirical test of this paper adopts a four-step method: (1)

TABLE 6: Placebo test.

Random variable	1 model	2 model	3 model
Random	-0.0463*** (-2.823)	-0.0073 (-0.532)	0.0156 (1.308)
Control variable	NO	YES	YES
Time fixed effect	NO	YES	YES
Individual fixation effect	NO	YES	YES
Province * time	NO	NO	YES
Constant term	3.7765*** (25.680)	4.2764*** (13.845)	2.2253*** (14.707)
Observed value	4437	4437	4352
R^2	0.003	0.783	0.523

TABLE 7: Analysis of influence mechanism.

Variable	1 model	2 model	3 model	4 model
Culreform	0.1181*** (7.323)	—	—	0.0958*** (6.296)
Index	—	0.0015*** (9.360)	0.0006*** (4.637)	0.0014*** (9.374)
Control variable	YES	YES	YES	YES
Time fixed effect	YES	YES	YES	YES
Individual fixation effect	YES	YES	YES	YES
Constant term	4.1965*** (13.628)	4.2273*** (13.577)	0.6324*** (3.194)	4.1667*** (13.401)
Observed value	4437	4437	4437	4437
R^2	0.786	0.796	0.754	0.798

regression of the reform of the cultural administrative system to the upgrading of industrial structure, if the regression coefficient is significantly positive, it indicates that the reform of the cultural administrative system has promoted the upgrading of industrial structure; (2) regression of urban innovation level to industrial structure upgrading. If the regression coefficient is significantly positive, it indicates that the urban innovation level promotes industrial structure upgrading. (3) The reform of the cultural administrative system is used to regress the level of urban innovation. If the regression coefficient is significantly positive, it means that the reform of the cultural administrative system is helpful to improve the level of urban innovation. (4) The influence of the reform of the cultural administrative system and the level of urban innovation on the upgrading of industrial structure is studied by incorporating them into the regression model at the same time. If the regression coefficient of the reform of the cultural administrative system becomes smaller or the significance level decreases or is no longer significant, it proves that the reform of the cultural administrative system promotes the upgrading of industrial structure through the effect of technological innovation. According to the above inspection steps, the mechanism verification model of this paper is set as follows:

$$\begin{aligned}
\text{Indu}_{it} &= \beta_0 + \beta_1 \text{Culreform} + \sum \gamma X_{it} + \eta_t + \mu_i + \varepsilon_{it}, \\
\text{Indu}_{it} &= \beta_0 + \beta_1 \text{Index}_{it} + \sum \gamma X_{it} + \eta_t + \mu_i + \varepsilon_{it}, \\
\text{Index}_{it} &= \beta_0 + \beta_1 \text{Culreform} + \sum \gamma X_{it} + \eta_t + \mu_i + \varepsilon_{it}, \\
\text{Index}_{it} &= \beta_0 + \beta_1 \text{Culreform} + \beta_2 \text{Index}_{it} \\
&\quad + \sum \gamma X_{it} + \eta_t + \mu_i + \varepsilon_{it},
\end{aligned} \tag{3}$$

where Indu represents the upgrading level of industrial structure, Culreform represents the pilot policy of the cultural administrative system, and Index is the level of urban

innovation. This paper uses the design idea of the intermediary effect model [3] for reference, measures the level of urban innovation (Index) by using the report of China's urban and industrial innovation published by Fudan University Industrial Development Center, and uses it as an intermediary variable.

The results of mediating effect of reform of the cultural administrative system are shown in Table 7. The result of model 1 shows that the influence coefficient of the reform of the cultural administrative system on the upgrading of industrial structure is 0.1181, and it has passed the significance test of 1%. It shows that the reform of the cultural administrative system promotes the upgrading of industrial structure, and it is an important way to promote the reform of cultural enterprises, which is conducive to breaking the entry barriers of cultural enterprises, thus promoting the orderly flow of cultural innovation factors such as capital, talents, and technology and optimizing the allocation of production factors in the field of cultural industries. The regression result of model 2 shows that the regression coefficient of urban innovation ability to industrial structure upgrading is 0.0015, and it has passed the 1% significance level test, which indicates that urban innovation level promotes industrial structure upgrading. The regression results of model 3 show that the influence of the reform of the cultural administrative system on urban innovation is 0.0006, which has passed the 1% significance level test; (4) the model incorporates urban innovation capability and cultural administrative reform, and the regression coefficient for urban innovation capability is 0.0014, exceeding the 1% significance level. The coefficient of reform of the cultural administrative system decreases from 0.1181 in the benchmark regression to 0.0958 in model 4. This demonstrates that reforming the cultural administrative system promotes industrial structure upgrading through the enhancement of urban innovation capability, thereby validating Hypothesis 2.

TABLE 8: Heterogeneity regression results.

Explanatory variable	East		Midland		Western part of the country	
	(1)	(2)	(1)	(2)	(1)	(2)
Culreform	0.1920*** (6.694)	0.0912*** (5.144)	0.0497** (2.389)	0.0335* (1.714)	0.1772*** (5.563)	0.0455 (1.313)
Control variable	YES	YES	YES	YES	YES	YES
Time fixed effect	YES	YES	YES	YES	YES	YES
Individual fixation effect	YES	YES	YES	YES	YES	YES
Province x date	NO	YES	NO	YES	NO	YES
Constant term	3.2109*** (8.071)	2.9182*** (8.645)	5.1768*** (7.886)	3.4141*** (5.195)	1.8406*** (4.726)	2.2753*** (4.708)
Observed value	1683	1632	1649	1649	1105	1071
R ²	0.845	0.911	0.795	0.839	0.761	0.853

5.2. *Heterogeneity Analysis.* Is the impact of cultural administrative system reform on industrial structure modernization different depending on the spatial location? As a result, this paper will attempt to further explore the heterogeneity of the influence of cultural administrative system reform on industrial structure upgrading. The sample of 261 cities is divided into three regions in this paper: eastern, central, and western, and each region is estimated using the double-difference method (see Table 8). According to Table 8, the effect of cultural administrative system reform on industrial structure upgrading varies by spatial location. Specifically, cultural administrative reform has the greatest effect on upgrading the industrial structure in the eastern region, indicating that the eastern region has a high level of economic development and strong support for cultural industries. Cultural enterprises are receptive to cultural administrative reform and can make comprehensive use of the eastern region’s advanced capital, labor, and technology to create the culture and advance the industrial structure. The influence coefficient of cultural administrative reform on industrial structure upgrading is lower in the central region than in the eastern region and greater in the western region. However, the policy effect in the western region is negligible, indicating that the reform of the cultural administrative system has a negligible effect on the upgrading of the western region’s industrial structure.

6. Research Conclusions and Policy Recommendations

Using panel data from 261 cities in China from 2001 to 2017, this paper empirically examines the impact of cultural administrative system reform on industrial structure upgrading through the use of the double-difference and PSM-DID methods. It is discovered that the reform of the cultural administrative system has significantly aided in the upgrading of industrial structure, increasing the level of upgrading by an average of 11.81 percent. The analysis of the influence mechanism reveals that by stimulating innovation, the cultural administrative system reform facilitated the upgrading of the industrial structure. The analysis of heterogeneity reveals that the reform of the cultural administrative system has a greater impact on the upgrading of industrial structure in the eastern region than in the central and western regions. In light of the foregoing research

findings, this paper makes the following policy recommendations.

To begin, the expansion of the pilot cultural administrative system reform is promoted in order to assist in upgrading the industrial structure. The study’s conclusion demonstrates that cultural administrative reform has significantly aided in the upgrading of industrial structure. Thus, cultural administrative reform should be tightly coupled with the endowments of various regions’ cultural resources, and historical sites, ethnic cultural traditions, and regional characteristic cultures should be fully utilized to adapt to modern business concepts, allowing various regions to develop cultural industries in accordance with local conditions. The orderly expansion of the pilot program is promoted for the Reform of Cultural Administrative Systems, so that more regions can benefit from the reform dividend associated with the system’s loosening. And we should increase the promotion of the cultural industry system reform, strive to overcome the original system constraints of the cultural industry, orderly transform the cultural management system, and give full play to the driving effect of cultural industry upgrading. We should relax the system and mechanism, promote the upgrading of the industrial structure, and make the reform of the cultural administrative system a driving force and economic power.

Secondly, the barriers that exist between cultural industries are dismantled, and the barriers that exist between cultural industries are dismantled. We should give full play to the development potential released by the reform of the cultural administrative system, break the entry threshold of cultural enterprises by simplifying examination and approval, attract enterprises to enter the market, and enhance the competitiveness of enterprises. By increasing support for cultural enterprises, efforts should be made to remove impediments to cultural industry development. As a significant promoter of tertiary industry growth, the industry itself is a typical green industry with a high value-added, which aligns with the country’s primary theme of green development today. As a result, we should actively promote the development of a fair, open, and competitive administrative management system and market operation system environment for the cultural industry, in order to accelerate the industry’s growth and upgrade its industrial structure.

Thirdly, the reform of the cultural administrative system’s pivotal role is emphasized in regional coordinated

development. Give full consideration to the impact of cultural system liberalization on domestic trade, foreign investment, financial services, and other related industries, as well as to the radiation and aggregation synergy of the cultural administrative system reform. Geographical location has an effect on the influence of cultural administrative system reform on industrial structure upgrading. On the one hand, it is necessary to strengthen support for the development of cultural industries and infrastructure in the eastern region's pilot cities, to continue promoting administrative system reform, to spread the economic and institutional benefits of cultural administrative system reform to the central and western regions, to increase the efficiency of cultural resource allocation, and to promote industrial structure upgrading.

Finally, the intermediary role of technological innovation should be emphasized in order to assist in industrial structure upgrading. The mechanism analysis in this paper demonstrates that reforming the cultural administrative system has an effect on industrial structure upgrading by increasing the level of urban innovation. As a result, we should actively encourage market players to innovate and develop independently, loosen the institutional dividend with the help of the cultural system, encourage cultural enterprises to enter the market, improve their competitiveness, and innovate, fully unleash the cultural market's vitality, and stimulate the development of new formats of cultural market development.

This paper takes the cultural system reform as a quasi-natural experiment, solves the causal relationship between the cultural system reform and the upgrading of industrial structure, and reveals the theoretical mechanism of the influence of the cultural system reform on the upgrading of industrial structure. However, due to the limitations of data and methods, the paper did not study the influence of cultural system reform on microenterprises and did not reveal the influence of cultural system reform on total factor productivity and innovation input of enterprises.

Data Availability

All data used in this study can be accessed by request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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