# The Influence of the New Relationship between Political and Business on the Hi-Q Development of the Electronic Cigarette Industry in the Eastern Coastal Areas

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Abstract: The relation between political and business is a major social relationship nowadays, it is also an significant factor affecting the regional economic development. In 2016, the state leader has also proposed to build a new type of "close" and "cleaning" political and business relationship. Under the new normal, China's economic development has changed from emphasis on increment to quality. In the Hi-Q development, real economy is the cornerstone of the overall economic. In recent years, as an emerging real economy, electronic cigarette industry has fast-paced in China. The upstream and downstream industrial chains are mainly concentrated in China's eastern coastal areas, what follows is the rapid spreading of electronic cigarette stores. Thus, it is essential to probe the impact of the new political business relationship on the Hi-Q development of the electronic cigarette industry, exploring ways to improve the new political business relationship, to the extent that realize the Hi-Q development of it.

This study uses the empirical analysis on the influence of the new political business relationship on the high-quality development of the electronic cigarette industry. In empirical analysis, the first process is to set up the index system of Hi-Q development level of the electronic cigarette industry combined with the new development concept, according to the data of the eastern coastal areas from 2011 to 2017, then use the entropy method to assess the Hi-Q development index of the electronic cigarette industry of eastern coastal provinces, and finally use the fixed effect panel model, select the government intervention as the core explanatory variable, select the corruption index and legal environment as the important explanatory variables and human capital as the controlled variables to implement empirical analysis on the influence of new political business relationship on the high-quality development of the electronic cigarette industry. The upshot demonstrate that new political business relationship can facilitate the Hi-Q development of the electronic cigarette industry effectively.

As a result, the new political business relationship can effectively facilitate the high-quality development of the electronic cigarette industry

Key words: New relationship Between Political and Business, the Electronic Cigarette Industry, Hi-Q Development, Entropy Method, Fixed Effect Panel Model

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Since 21 century, the Non-PublicEconomy in China has developed rapidly and foreign capital has been pouring into the Chinese market constantly, while at the same time, the government still plays an crucial part in the allocation of market resources. Generally speaking, for private companies, to set up a political connection with interest orientation with the government is necessary, so that to obtain limited public resources in the business environment of institutional shortage, which will inevitably lead to the destruction of the fairness of the market and the breeding of corruption. In 2016, the growth of economy in Northeast China has experienced a "precipitous fall" and the real GDP growth rate of Northeast China has fallen to the last four in the country, up to now, there has been no big improvement. Most experts and scholars believe that, the main reason of economic downturn in Northeast China is the deterioration of business environment, what's more, the development of regional economy can be promote only by improving the relationship between political and business. In consideration of this, in 2016, the state leader first stated "close" and "cleaning" as the new relationship between political and business. Therefore, the relationship between political and business is provides with exceedingly practical significance to economic development.

China is the birthplace and big manufacture country of e-cigarettes. About 95% of the world's cigarette sets are transported by Chinese manufacturers, and the products are mainly exported, taking up over 70% share of the global market. The market scale of electronic cigarette mainly aimed at smoking cessation is 550 million yuan in China. Even more, the scale of China's e-cigarette market will expand to 8.33 billion yuan in 2020. The domestic e-cigarette market will grow a fast-paced with an 8-year growth rate of 72.5%. Compared with 2013, only 45,457 domestic e-cigarette enterprises were registered, but now there are 174,399 domestic electronic cigarette enterprises by February 4th, 2021, which can be predicted, this industry will keep on expand in future. In this context, studying the impact of the new government business relationship on the development of electronic cigarette industry it is full of great significance.

#### LITERATURE REVIEW

# Study of the Relationship Between Political and Business

There is no unified definition of what is the relationship between political and business. In the initial stage of the founding of new China, there state-owned enterprises were only and "collectively-owned enterprises", the allocation of resources was absolutely dominanted government, at this time, the relationship between political and business was dominated and controlled by the government. Before the reform and opening-up, the research of Zhang Mo, Shen Li and Gong Liping (2019) suggests that the relationship between political and business can help private enterprises broaden financing channels and obtain government led allocation of scarce resources as a kind of instrumental political connection.<sup>2</sup> Under the influence of this abnormal relationship between political and business, there is a lack of market competition and fairness, what's worse, part of the funds of enterprises flow to the private pockets of government officials. Driven by the attribute of "economic man", the negative phenomena such as tradeoff of money, power and collusion between government officials and businessmen become a frequent occurrence.

Since the 18th National Congress of the Communist Party of China, the anti-corruption struggle is constantly deepening, officials and businessmen have been forced to "talk happily" in the past to "be fainthearted" now. Under this circumstance, the state leader first proposed in 2016 to build "close" and "cleaning" new political and business relations. The state leader pointed out that for leading cadres, they should communicate with private entrepreneurs sincerely, openly and selflessly, serve the market actively and solve the problems of entrepreneurs' development; for entrepreneurs, they should actively communicate with government departments, obey the market rules strictly and engage in business properly.<sup>3</sup>

There are WGI, WCR, GCI and QoGa to measure government governance index in the world, they are analyzed from four aspects:

performance, supervision, rule

of law and the degree of corruption. In the last few vears, there has been a gradual increase in domestic studies on government governance, such as the China Marketability Index released by Fan Gang's team, the Research Center for Integrity and Governance set up by Sun Yat sen University to study government integrity, and the government financial transparency jointly studied by the Chinese Academy of Social Sciences and Shanghai University of Finance and Economics. In 2018, Nie Huihua and other ethnic Chinese, on the basis of consulting the investigation on governance government and government enterprise relationship both at home and abroad, combined with own national conditions, released the Ranking List of China's Urban Political and Business Relationship (2017). From the two dimensions of "close" and "clean" to establish the evaluation index system of the relationship between political and business, are analyzed from five dimensions, including the government's concern for enterprises, the government's services for enterprises, the government's reduction of tax burden on enterprises, the government's promotion of enterprises, the government's promotion of enterprises, the integrity and transparency of government.

# Study on the Evaluation of Economic Development Quality

Among economic fields, based on scholars' different understanding of high-quality economy, different structural index systems are constructed. In 1995, the World Bank constructed the evaluation index system of Hi-Q economic development in four dimensions of human capital. man-made capital, natural capital and social capital. Gary Jefferson measures the China's economic development level based on the Total Factor Production Indicators, which proves that China's economic quality has shown an overall upward trend since the reform and opening-up.<sup>4</sup> Mohamed Abdouli and Sami Hammami measure the quality of economic development from the perspectives of FDI inflow, capital reserves and environmental quality.<sup>5</sup> Ding Tao and Gu Jinliang based on the new development concept, constructed the regional economic quality

development index system, and studied the relationship betwee technological innovation and high-quality economic development.<sup>6</sup> Ren Baoping and Li Mengxin structured a economic development index system from the six angles of economic growth efficiency, structure, stability, welfare change and achievement allocation, resource utilization and ecological environment cost, and national economic quality.<sup>7</sup>

### Research on the Influence of Politicalt and Business Relationship on Economic Development

The influence of political and business relationship on economic development is mainly reflected in the macro-level and micro-level.

In the middle of the 18th century, Adam Smith. the representative of the western liberal classical economic school, once proposed that at the macro-level, the government only needs to act as the "night watchman" to protect the society and every member of society, build and maintain public utilities such as education and medical treatment, and oppose government intervention in monopoly. The development of economy should be regulated by the market supply and demand, also making the most of "the invisible hand". To a certain extent, Liberalism has a profound influence on the Western Capitalist Economy'a overall development. However, the disordered capital preocess led to the chaos of the market, resulting in the economic depression and global economic crisis in the 1930s. In this background, Keynes confirmed in his masterpiece *The General Theory* of Employment, Interest and Money: the market is not omnipotent. Keynes believed that in the economic depression, the government should increase effective demand through macro-control, implement loose monetary policy and fiscal policy, and effectively regulate the depressed market. Even though the implementation of Roosevelt's New Deal alleviated the capitalist economic crisis, state-monopoly capitalism inhibited self-regulation of the market, which eventually led to the 12 year economic stagflation in the United States in the late 20th century.

The role of government in the process of dealing with the relationship between

the government and the market, on the one hand, the government should provide various public services for the market, carrying out appropriate macro-control and formulating medium and long-term development plans. Therefore, only by strengthening the government's own construction and improving the relationship between political and business can people improve the efficiency of industrial policy and improve the environmental performance of enterprises in the long term. On the other hand, the government should strengthen the construction of legal system to curb corruption. 8-10

At the micro-level, on the one hand, the innovation ability of enterprises can be improved effectively, also enterprises can obtain the institutional resources needed for innovation. These institutional resources mainly include government subsidies, tax break, financing and so on.<sup>11,12</sup> In terms of government subsidies, listed companies with good relationship with the government are more likely to obtain government subsidy income, this has a long-term positive impact on the financial performance of enterprises so that to provide external financial support for enterprise innovation activities. 13,14 In terms of tax entrepreneurs avoidance. with connections may also choose to bribe to reduce the amount of tax paid. 15 However, when enterprises take the initiative to reduce tax avoidance, the local financial pressure can be alleviated, and increase the affinity with the government, then obtain more policy support. 16 In terms of industry barriers, high entry barriers will lead to entry blockade, which is not conducive to the innovation activities of enterprises, and the good political relationship between entrepreneurs and the government can play a positive role in breaking through the industry entry barriers. 17 The better the political relationship between the enterprise and the government, the more likely it is to enter the high barrier industries, and the more likely it is to eliminate the industry restrictions on enterprise innovation activities, which is conducive to enterprises to carry out sustainable innovation activities. 18 In terms of financing. government's allocation of public resources to enterprises can also play a role as signal transmission, which can effectively reduce the information asymmetry between enterprises and external investors, so as to attract external investors to provide more innovation resources for enterprises; in addition, the enterprises with good political resources, it is easy to obtain public resources, so as to faces less market competition pressure, which will reduce enterprise innovation investment. <sup>19-22</sup>

On the other hand, a good relationship between political and business can help enterprises understand the market situation better, obtain financing, predict the direction of policy adjustment, improve enterprise revenue, helping enterprises obtain the preferences of investment resources and improving the efficiency of enterprise investment decision-making, reducing the impact of policy uncertainty on enterprises.<sup>23-27</sup>

### **Literature Review**

To sum up, there are abundant researches on the relationship between political and business at home and abroad, and different degrees of political and business relationship will also have a differential impact on the development of regional economy. However, there are few studies on the measurement and how to establish the evaluation index of the relationship between political and business in China. There are few studies on the relationship between the political and business relationship and the Hi-Q development of electronic cigarette industry. Based on former researches, this study points to the impact of the relationship between political and business on the Hi-Q development of electronic cigarette industry.

### MEASUREMENT AND ANALYSIS OF HI-Q DEVELOPMENT INDEX OF THE ELECTRONIC CIGARETTE INDUSTRY

### **Construction of Evaluation Index system**

Under the guidance of the new development concept, combined with the connotation of the real economy, keeping to the principles of accessibility, scientificity and comparability, and drawing on the authoritative research results at home and abroad, this study attempts to build a Hi-Q development

index of the real economy in the eastern coastal areas on the basis of data availability. Under the guidance of the new development concept, the index system is reasonably designed and scientifically selected from five dimensions of

innovation, coordination, green, sharing and opening. For the lack of some original data, Ma Lianfu's method is used for reference and calculate the annual average growth rate. The evaluation index system is shown in Table 1.<sup>28</sup>

First-level index	Second-level index	onic Cigarette Industi Data sources	
Sharing	Number of hospital beds per 1,000	Statistical annual o	
Sharing	population	each province	
	Thiel's index of urban-rural income	Statistical annual o	
	gap	each province	
	Registered unemployment rate	Statistical annual o	
	Registered unemployment rate	each province	
Innovation	R&D investment intensity	Statistical annual o	
	,	each province	
	Science and technology expenditure	Statistical annual o	
	as a proportion of fiscal expenditure	each province	
	Full-time equivalent of industrial	Statistical annual of	
	R&D personnel above the scale	each province	
Coordination	Rationalization of industrial structure	Statistical annual of	
		each province	
	Advanced industrial structure	Statistical annual of	
		each province	
	Urbanization rate	Statistical annual o	
		each province	
Opening	Inbound tourism revenue as a share of	Statistical annual of	
	total tourism input	each province	
	Export Dependence	Statistical annual of	
		each province	
	Import Dependence	Statistical annual of	
		each province	
Green	Energy consumption per unit of GDP	Industrial statistics	
		annual	
	Industrial waste water discharge	Statistical annual of	
		each province	
	Industrial dust emissions	Statistical annual o	
		each province	

## Measurement and Analysis of Hi-Q Development level Index of the Electronic Cigarette Industry

#### **Evaluation Methods**

Each single indicator can only reflect the high-quality development level of electronic

industry from one single aspect. If people want to judge and weigh the situation in a area, people must adopt the comprehensive evaluation methods, and comprehensively consider 15 indicators from five dimensions. The explanatory power of the comprehensive index is greater than that of the single indicator. Subjective weighting evaluation

method and objective weighting evaluation method are two methods to determine the heft of every index. Because subjective weighting appraisement method depends on subjective judgment, this paper intends to use the entropy weight method in the objective weighting evaluation method to determine the index weight through information entropy. Among them, the range method is used to deal with the original data dimensionless, and then the dimensionless index data and index weight are weighted to get the development index of the Electronic Cigarette Industry.

Specific methods are as follows:

Step 1: Dimensionless processing of original data. There are positive and negative indicators in the selected indicators, so it is necessary to use

range standardization method to standardize the data.

Positive index standardization:

$$Z_{ij}^t = \frac{x_{ij}^t - \min{\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\}}}{\max{\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\}} - \min{\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\}}}$$

Negative index standardization:

$$Z_{ij}^t = \frac{\max\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\} - x_{ij}^t}{\max\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\} - \min\{x_{1j}^t, x_{2j}^t, \dots, x_{nj}^t\}}$$

Step 2: Calculation of the information entropy. The information entropy is calculated based on the standardized data. The specific calculation method is as follows.

$$E_{j}^{t} = -\frac{1}{\ln(m)} \sum_{i=1}^{m} f_{ij}^{t} \times Ln f_{ij}^{t}, i = 1, 2, ..., m; j = 1, 2, ..., n$$

$$f_{ij}^{t} = \frac{Z_{ij}^{t}}{\sum_{i=1}^{m} Z_{ij}^{t}}$$

Step 3: Calculation of the index weight. W is the index weight of item j. the greater the weight, the greater the influence of the index on the measurement results. The calculation formula is as follows:

$$W_j^t = \frac{1 - E_j^t}{\sum_{j=1}^n (1 - E_j^t)}$$

Step 4: Lastly, weighting the determined index weight and the dimensionless index data can obtain the high-quality development index of electronic industry of each region. The calculation formula is as follows:

$$S_i^t = \sum_{j=1}^n W_j^t \times Z_{ij}^t$$

The value range of high quality development index s of electronic industry is 0-1. The larger

the index value is, the preferable the development of the index is.

#### **Calculation Results and Analysis**

This paper selects the eastern coastal nine provinces as the study areas since the domestic electronic cigarette industry industry is mainly concentrated in the eastern coastal areas of China. According to the calculation method in the previous section, people can get comprehensive indicators of the high-quality development of electronic cigarette industry of the other nine provinces along the eastern coast from 2011 to 2017. The results show that, in the past seven years, the high-quality development level of electronic cigarette industry of the nine eastern coastal provinces has basically shown an increasing trend year in and year out, but there are differences in the development level and speed among the provinces.

Table 2 High Quality Development Index of the Electronic Cigarette Industry								
	2011	2012	2013	2014	2015	2016	2017	Average annual growth rate from 2011 to 2017
Guangdo ng Province	0.5184 22	0.5586 5	0.6024	0.6127 52	0.6541 92	0.6908 06	0.70572 6	6.022%
Jiangsu	0.5154	0.5557	0.6117	0.6631	0.6850	0.7105	0.72550	6.792%
province	64	89	23	5	73	56	5	
Tianjin	0.5430	0.5719	0.5956	0.6088	0.6327	0.6470	0.61756	2.285%
Province	97	7	22	98	85	47	2	
Hebei	0.2746	0.3061	0.3397	0.3735	0.3997	0.4433	0.46719	11.68%
Province	31	16	81	61	07	86	4	
Shandong	0.4450	0.4837	0.4905	0.4850	0.5526	0.5754	0.59965	5.780%
Province	88	54	17	32	52	92	1	
Zhejiang	0.4719	0.5040	0.5407	0.5658	0.5882	0.6148	0.63947	5.913%
Province	92	14	31	13	07	62	3	
Fujian Province	0.3422 22	0.4047 27	0.4454 2	0.4731 13	0.4823	0.4987 6	0.51691 9	8.508%
Shanghai	0.5617	0.5702	0.5911	0.6059	0.6059	0.6230	0.65892	2.882%
Province	85	21	45	17	58	68	7	
Liaoning	0.3844	0.4031	0.4486	0.4588	0.4495	0.4760	0.49317	4.712%
Province	85	9	03	61	03	57	8	

The nine provinces in China's eastern coastal areas are the pacesetter of economic development. In the measurement of the high-quality development indicators of the electronic cigarette industry, the average annual growth rate of 6.063% is maintained from 2011 to 2017, and the high-quality development level of the electronic cigarette industry of each province is gradually improving. Among them, the maximum value occurred in Guangdong Province in 2017, and the index data was 0.705726; the minimum value occurred in Hebei Province in 2011, and the index data was 0.274631.

# AN EMPIRICAL ANALYSIS OF THE INFLUENCE OF GOVERNMENT BUSINESS RELATIONSHIP ON THE HIGH QUALITY DEVELOPMENT OF THE ELECTRONIC CIGARETTE INDUSTRY

# Variable Selection and Data Processing Variable Selection

This paper uses the panel data model to analyze the impact of the new political business relationship on the development level of the electronic cigarette industry. In the study of the relationship between the two, the author uses the high quality development index of the electronic

cigarette industry of the nine eastern coastal provinces from 2011 to 2017 as the dependent variable; select government intervention as the core explanatory variable, and select the degree of corruption and legal benefits as the important explanatory variables. Among them, the government intervention is measured by the local government financial proportion of expenditure in GDP which is commonly used in the world, the degree of corruption is expressed by the number of 10000 public officials who have been registered for duty crime, and the legal measured benefits are by Fan Marketization Index Of China's Province which is indicated by the development of intermediary organizations and the score of legal system environment

The introduction of controlled variables in the model is mainly to avoid endogenous problems. Other factors are needed to control to study the impact of new political business relationship on high-quality economic development. The selected controlled variables in this paper are: human capital, financial scale and infrastructure construction. Among them, human capital is expressed by the proportion of the number of undergraduates in colleges and universities and the permanent resident population at

the end of the year to control the factors that affect the high-quality development of the real economy from the level of labor force; infrastructure is expressed by the road area per capital of each province to control the driving effect of infrastructure on the high-quality development of the electronic cigarette industry; express financial services by using year-end deposit and loan balances as a percentage of GDP, factors controlling the impact of the virtual economy on the development level of the electronic cigarette industry.

The indicator data selected for this paper are obtained from the National Bureau of Statistics, the statistical yearbooks of each province, the statistical yearbooks of Chinese cities, the work reports of provincial procuratorates, and Fan Gang's Marketization Index Of China's Province(2018). In the model, the natural logarithm of explanatory variables and controlled variables is needed to eliminate the influence of heteroscedasticity and reduce the possibility of collinearity. It reflects the long-term elastic relationship between variables in the model. After data processing, the model is obtained as followed:

### **Data Processing**

$$Y_{it} = \alpha_1 gov_{it} + \alpha_2 cor_{it} + \alpha_3 law_{it} + \sum_k \alpha_4 \times \theta_{it} + \varepsilon_{it}$$

 $Y_{it}$  is the explanatory variable, denotes the electronic cigarette industry quality development index of province i in year t; gov is the core explanatory variable, cor and law are the degree of corruption and legal benefits respectively.  $\theta_{it}$  is the controlled variable, including the human capital, infrastructure and financial scale of i province in t year.  $\varepsilon_{it}$  is the error term.

### **Empirical Test and Result Analysis**

Panel model is usually divided into fixed effect panel model and random effect panel model. In this paper, Stata measurement software through Hausman test results show that the original hypothesis is rejected in favor of using the random effect panel model. In view of this, the individual fixed effect panel model is used for analysis. In order to improve the accuracy of the analysis, controlled variables are gradually added to the model for regression, and the estimated consequence are shown in Table 3

Table 3 Empirical Results of Nine Provinces in Eastern Coastal Area					
Variable Name	Model1	Model2	Model3	Model4	
Government Intervention	0.24334**	0.22660**	0.27896**	0.17048*	
Degree of Corruption	-0.01319	-0.01270	-0.01420	-0.04969**	
<b>Legal Benefits</b>	0.30499***	0.29455***	0.26956***	0.12610***	
Financial Scale		0.06859	0.01302	-0.02382	
Infrastructure			0.24293	-0.06381	
Human Capital				1.20475***	

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Individual Effect	YES	YES	YES	YES		
Sample Size	63	63	63	63		
	0.8228	0.8238	0.8323	0.8918		
Note: *, * *, * *, respectively represent significant differences at 10%, 5% and 1% levels						

From the regression outcome in Table 3, it can be seen that in the estimated parameters of core explanatory variable, government intervention in the five models are positive and highly significant. In model 1 to model 4, they are all significant at the level of 5%. With the gradual introduction of the controlled variables, the coefficient of determination is increasing, reaching 0.8918 at the highest. Fiscal expenditure is an crucial method for the government to adjust the development level of the real economy. It is also an crucial manifestation of the local government business relationship to the economic and industrial development. China's sustained development in recent years has encountered inflation, overcapacity, industrial structure imbalance and other problems, coupled with the sharp increase in external pressure of economic development at this time, the government chose to implement the quantitative easing monetary policy and positive fiscal policy, in which expanding the scale of government expenditure is the main policy tool to stabilize growth, adjust structure, support enterprises' independent innovation and cultivate strategic emerging industries are the main economic purpose of government expenditure expansion. In the empirical model, the index as the core explanatory variable, the coefficient is 0.17048, which shows that in the three explanatory variables of political business relationship, the influence of government intervention is positive, and the driving effect on the development level of the electronic cigarette industry is the largest.

In the results show, the degree of corruption has an inhibitory effect on the development level of the electronic cigarette industry. After gradually adding the controlled variables, the significance level of corruption remains at 5%. Since 2013, China has attached great

importance to the construction of party style and integrity construction and the fight against corruption. Through the Systemic anti-corruption, process of anti-corruption, and cultural advocacy of integrity, insist on "letting power operate under the public" and correctly sort out the relationship between government officials and entrepreneurs. The data shows that when there is less corruption government officials, the higher the level of quality development of the real economy will be.

The significance of legal benefits in the model has been stable at 1%, and its sign is positive, which has a high positive correlation with the explanatory variables. It shows that the more perfect the legal environment is in the period of variable selection, the greater the pulling effect on the high-quality development of the electronic cigarette industry. Legal environment construction can regulate the market behavior and well protect the legitimate rights, also interests of the market subject. In 2013, China successively introduced the Law of the People's Republic of China on the Protection of Consumers' equities and other laws and regulations, which strictly enforce the market access principle, strengthen the protection of intellectual property rights of the market subject, protect the legitimate rights, also interests of consumers, and restrain public officials' bad behavior and avoid entrepreneurs make non market behavior which lead to undesirable competition, the continuous improvement of the legal system environment is conducive to the more fair and equitable operation of the socialist market, and ensure the development level of the electronic cigarette industry.

Among the three explanatory variables, the coefficient value of the core explanatory variable is larger, which indicates that in the

economic sense, government intervention is more effective than the degree of corruption and the efficiency of legal system in improving the development level of the electronic cigarette industry.

There is a highly positive correlation between the controlled variable human capital and the explanatory variable, which is significant at the level of 1% in the model, indicating that in contemporary Chinese economic society, human capital plays a significant role in improving the development of electronic cigarette industry. The higher the literacy of the labor force is, the greater the value created in an equal length of labor time, that is, the higher the labor productivity, and the more significant the driving effect on our explanatory variables. In the selection of financial scale indicators, the share of financial institutions' deposit and loan balances in GDP is used. In model 4, financial scale has a negative impact on the development of the electronic cigarette industry, but the empirical results are not significant, indicating that the smaller the financial scale is, the more beneficial to the development of the electronic cigarette industry. The infrastructure indicator uses the ratio of road area to resident population in each province, and this controlled variable is positively correlated with the explanatory variables, indicating that an increase in the level of infrastructure can effectively contribute to the quality development of the electronic cigarette industry. However, it is not significant in the empirical model.

### DISCUSSION

#### **Conclusions**

In the development of regional electronic cigarette industry, how does the new political business relationship affect its development? Based on the data from the National Bureau of statistics and the Provincial Bureau of statistics, this paper researches the influence mechanism of the new political business relationship on the high-quality development of regional electronic cigarette industry. In the study, the government intervention, the degree of corruption and the

legal system environment are selected as three indicators to measure the development of the new political business relationship in the region. Through the fixed effect panel model, it is proved that the new political business relationship plays a energetic influence on the high-quality development of electronic cigarette industry.

### **Theoretical Contributions**

Since the establishment of China's market economy system in the last century, although the importance of market factors has been increased and the influence of the government has been weakened, it is still effective. There are disputes about how the government changes its role, what kind of position it occupies and how to play its role in the relationship between political and business. Considering the national conditions of China's socialist market economy system, the concern between political and business can affect all aspects of enterprises, ranging from the future development layout of enterprises to the financing and product innovation of enterprises. So in this paper, the author takes the new type of political business relationship which is advocated in China as an endogenous variable that affects high-quality development of electronic cigarette industry to study with. In previous research, scholars more focus on the perspective of micro enterprises to analyze the relationship between enterprises and the government, and measure the strength through the proportion of the number of directors with political connections in enterprises.<sup>29</sup> In this paper, the author selects indicators from the perspective of the government.

### **Practical Significance**

The research of this paper has practical significance for both the government and the electronic cigarette industry.

First of all, take maximum advantage of the synergistic effect of the new government business relationship, the electronic cigarette industry can release valuable signals to potential

investors by revealing their good government business relationship; the good development of upstream and downstream of the electronic cigarette industry and the formation of industrial clusters can be regarded as the good performance of the relationship between local government and the electronic cigarette industry, so as to attract high-quality enterprises and production oriented scientific research institutions to settle down locally.

Secondly, the government intervention should adjust the point of view, focusing on the supervision of the market and the rational layout of the regional economic and industrial structure, and strictly supervise the behavior of the electronic cigarette industry in the market. On the one hand, the government should improve the access threshold of the electronic cigarette industry and strengthen the tax supervision of it so that to avoid unscrupulous enterprises making huge profits by using tax dividends, on the other hand, under the current economic development situation, in order to realize the high-quality development of the real economy, government must pay more attention to scientific and technological innovation. considering the healthy development electronic cigarette industry, government should focus more on the perspective of public health, what's more, the government should not only reduce the exposure of electronic cigarette advertising to young people, but also encourage electronic cigarette enterprises to cooperate with scientific research institutions so as to carry out scientific and technological innovation, minimize the harm of electronic cigarette to human health in a certain extent. 30,31

Lastly, it is necessary to build a strict legal environment to avoid the bribery of entrepreneurs. Even in Krammer's study, some of the 30 emerging market entrepreneurs in their sample did get the help they wanted through bribery.<sup>11</sup>

### **Limitations and Future Research**

Although the results of this paper are reliable, there are still some limitations. First of all, in

the selection of the research object, only nine provinces along the eastern coast of China are included. Although the author thinks that the nine provinces have the leading role in the development of political and business relationship and the electronic cigarette industry, there are still differences in the aspects of cultural history and regional characteristics in the central and western regions of the interior. So people should carefully combine the local situation when promoting the results to these areas. Secondly, the explained variables in the study are comprehensive consideration of the high-quality development of electronic cigarette industry in a specific area, which is not detailed to the characteristic industrial zone represented by the real economy.<sup>26</sup> Lastly, for the measurement of the new political business relationship, this paper only focuses on the intervention, government legal system environment and the degree of corruption from the perspective of the government. Therefore, the direction of future research hopes to focus how the communication between government and enterprises within the electronic cigarette industry will be. As for the degree and effect of communication are data that people can not measure for the time being.

### **Author Declaration**

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