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The Role of Regional Formal Institution and Foreign Direct Investment in the Performance of Tourism Firms

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ABSTRACT: *Tourism, as one of the important pillar industries of China's economic development, has also made rapid development. At the same time, the number and the scale of tourism enterprises are also growing. This study collects the marketization index of each province in China, the actual level of foreign capital utilization in each province, and the return on total assets and return on equity of listed tourism companies. In addition, the evaluation of corporate social performance is collected by questionnaire with 500 responses. The results of the model show that the regional formal institution has a significant impact on the financial performance of tourism companies. The total index of marketization, the development of factor markets, the development of market-intermediate institutions and legal framework have significant positive effects on the ROA of tourism listed companies. Foreign direct investment has no significant impact on the performance of tourism listed companies; however, it has impact on their performance under the mediation of regional formal institutions. The total market index, the relationship between government and markets, the development of non-state enterprise sector, the development of factor markets the development of market-intermediate institutions and legal framework have moderating effects on the impact of FDI on ROA. Regional formal institution has a significant impact on consumer perception of social performance of tourism enterprises.*

Key words: *Regional formal institution, FDI, Tourism company, ROA, Operation performance, Foreign investment.*
JEL Classification: *F23; D22*

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1. Introduction

At present, China's economy has shifted from a stage of high-speed growth to a stage of high-quality development, and people's living standards have been significantly improved. At the same time, more attention is paid to the consumption of spiritual entertainment. Tourism, as one of the important ways for people to pursue a better and happy life, has gained new vitality in the new era. In order to bring people better travel enjoyment, better meet people's demand for a better life, the number and scale of China's tourism companies are expanding day by day. The operating performance of tourism companies affects the overall development quality of domestic tourism to a great extent.

Regional economic, political, social and other aspects of the institution environment is not only important to the growth of regional economy, but also determines the economic subject in the region to engage in

business activities (Lei & Xiong, 2013). Therefore, the regional formal institution environment plays an immeasurable role in the operating performance of regional tourism companies. Meanwhile, the regional formal institution can also restrain the corporate behaviors of various dishonest behaviors in the tourism industry. Tourism industry is China's first batch of open foreign investment in industry, has long been a foreign direct investment in important areas of concern, at the same time, the travel industry through the use of foreign direct investment to solve the shortage of funds, shortage of talents, backward management experience, to the tourism industry in our country to expand the international market, improve the competitiveness on a global scale. Therefore, it is of great strategic significance to study the effect mechanism of foreign direct investment on the financial performance of China's tourism companies.

The purpose of this study is to explore the relationship between foreign direct investment (FDI), regional formal institutions and corporate performance of tourism companies, and the role of regional formal institutions in this relationship. It is committed to providing decision-making basis for the formulation and improvement of regional formal institution, and providing theoretical basis for tourism companies to make reasonable and correct use of foreign capital and promote the sustainable development of tourism.

In a theoretical sense, formal institution refers to a local macro policy, legal institution, regional policy and so on.Regional formal institution has great influence on regional tourism development. A good regional formal institution plays a helping role in the development of regional tourism, which can further standardize the market performance of regional tourism, make the maintenance and upgrading of scenic spots, the service improvement of hotels and other aspects into a virtuous cycle, and can affect the development power of regional tourism at a deeper level.Foreign direct investment (FDI) is also a very important aspect of tourism development factors. It can not only solve financial problems for listed tourism companies, but also bring advanced business management experience, enhance the international influence of domestic tourism, and has a very close relationship with the vitality of regional tourism development.

Look from the practical significance, the tourism industry as an important field of China's opening to the outside world, more in the future will continue to extend the breadth and depth of the open, with the cooperation of countries along the "area" and the exchange, set up between countries, regional tourism cooperation mechanism, deepen the tourism cultural ties with other countries, to promote the further development of the internationalization of China's tourism industry.Through foreign direct investment, it is imperative to promote China's tourism from rapid growth to high quality growth.

At present, regional formal institutional aspects of tourism development under the condition of the research is not thorough, the influence of this study from regional official institution and the perspective of foreign direct investment, trying to find the impact of relationship in the study, is conducive to the development of tourism area and improve with practice basis for the establishment of a formal institution, help the tourism enterprise managers reasonable utilization of foreign capital, Promote the healthy development of enterprises.

This study mainly explores the relationship between regional formal institutions, foreign direct investment (FDI) and corporate performance of tourism companies.This paper selects the regional formal institution of provinces and cities in China, the level of foreign direct investment (FDI) in the tourism industry of the province and the corporate performance of tourism companies as the research objects, and analyzes the relevant data of the official market index report of Provinces in China, the statistical yearbook of provinces in China and the questionnaire survey data. In terms of specific operation, the questionnaire survey will be conducted on the social performance of tourism companies based on the five aspects of marketization of provinces and cities as the dimension to measure the implementation effect of regional formal institution, and the level of foreign direct investment (FDI) in tourism industry of provinces and cities.

This research carries out the related topics of regional formal institution, foreign direct investment (FDI) and corporate performance of tourism companies, which has a unique reference significance for the solid promotion of regional tourism development.At present, most of the researches on corporate performance focus on financial performance, and few pay attention to corporate social performance. However, this study will adopt the method of questionnaire research, and will creatively explore the impact of regional formal institution on the social performance of tourism companies.Secondly, we use The Chinese statistical yearbook to obtain the relevant data of foreign direct investment (FDI), and explore the influence of FDI on the financial performance of tourism companies.Finally, it further analyzes the moderating effect of regional formal institution on the influence of foreign direct investment (FDI) on the financial performance of listed

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tourism companies. In terms of research scale and practical operation, it has a unique perspective and depth in regional formal institution research, foreign direct investment (FDI) research and corporate performance of tourism companies.

2. Hypothesis Formulation and Research Model Construction

2.1. Research Hypothesis

2.1.1. Influence of Regional Formal Institution on Financial Performance of Listed Tourism Companies

The definition of regional formal institution is of great significance for regulating tourism market and enabling tourism enterprises to obtain a good development environment.The benign guidance and rigid regulations of regional formal institution for tourism industry are intrinsically in line with the development requirements of tourism companies, and play a good role in promoting the development of tourism companies. Specifically, the regional formal institution is formulated from the perspective of development and has internal consistency with the requirements of tourism companies for development.From the perspective of regional integration and sustainable development, a good regional formal institution is conducive to improving the brand reputation of tourism companies, liberating their productivity, improving their performance and increasing their profits.The level of development of tourism companies, in turn, also acts on the regional formal institution, making it constantly adjust the relevant institution, so that the development of both sides into a virtuous cycle.

From the internal texture of tourism development, regional formal institution can have an impact on the local tourism development of the region, a good regional formal institution can promote the tourism development of the region, and the improvement of the tourism development level of the region can improve the development level of tourism companies in the region, otherwise it is not.It can be seen that regional formal institution has a positive impact on the performance level of tourism companies.

Based on the above theories, we believe that:

Hypothesis 1: China's regional formal institution has a positive impact on the financial performance of tourism companies. Specifically, good regional institutional environment has a positive impact on the financial performance of tourism companies, that is, the level of regional institutional improvement, the level of financial performance of tourism companies will also increase.

2.1.2. Influence of Foreign Direct Investment (FDI) on Financial Performance of Listed Tourism Companies

More and more scholars have paid attention to the effect of FDI on corporate financial performance at the regional level.In terms of the research on the impact of FDI on economic growth, most foreign scholars have widely accepted the view that FDI can bring advanced management experience, technology and export market to the host country, and promote the growth of economic efficiency of the host country through the spillover effect of FDI.In China, foreign direct investment generally participates in business activities in the form of establishing sino-foreign joint ventures or multinational corporations, among which technology spillover is the most common influence channel for domestic enterprises, while FDI generally participates in domestic economy in two ways: multinational corporations and sino-foreign joint ventures.The influence of FDI on corporate financial performance is influenced by two aspects, one is internal factors of the company itself, the other is external environmental factors of the company. Other scholars have found that the spillover effect depends on how enterprises use FDI and is affected by the ownership structure, size and business of enterprises. FDI will exert certain influence on the economic growth, trade, industrial development, employment, wage income, technological innovation and environment of the host country.

Based on the above theories, we believe that:

Hypothesis 2: Foreign direct investment (FDI) has a positive impact on the financial performance of tourism companies. Specifically, the higher the level of actual utilization of foreign capital in the region, the better the financial performance of tourism companies in the region.

2.1.3. Influence of Regional Formal Institution and Foreign Direct Investment (FDI) on Financial Performance of Tourism Companies

A country's infrastructure, market size, trade openness, production cost, economic and political stability, resource endowment, institution and policy design are important factors affecting FDI. Zhong Changbiao proposed that Foreign direct investment can not only improve local production efficiency, but also promote

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the productivity of surrounding areas due to the dependence between regions. Lu Jiangyong enlarged the research perspective to the whole country. He believed that FDI would only have a positive spillover effect on local enterprises, but no spillover effect on other enterprises nationwide.From the perspective of experience, foreign direct investment will be according to the characteristics of the enterprise itself and preferences for location selection, but also nots allow to ignore the influence of regional institutional factors, regional local government may actively introducing foreign investment in promotion of incentive mode, is not only in order to improve the local administrative efficiency, but to rely on the introduction of foreign investment performance for their promotion to get more chips.Poor infrastructure and government restrictions on foreign financing were the main barriers to inflows, According to Kinda, which analyzed enterprise-level data from 77 developing countries.In China, the level of regional economic development is uneven. The eastern region has obvious advantages over the central and western regions in terms of infrastructure, quality of labor force and marketization degree, and the amount of foreign direct investment is also very different.Through the study of the influence of foreign direct investment on China's economic development from 1992 to 1994, it is found that FDI has an obvious promoting effect on China's economy, especially in the eastern coastal region, which is stronger than the central and western inland regions.

Based on the above theories, we believe that:

Hypothesis 3: China's regional formal institution plays a moderating role in the impact of foreign direct investment (FDI) on the financial performance of tourism companies. Specifically, the better the regional formal institution is, the more obvious the positive effect of FDI is.

2.1.4. Influence of Regional Formal Institution on Corporate Social Performance of Tourism Companies

Institutional environment has gradually become an important direction in the study of enterprise operation and management in emerging economies. Some foreign experts and scholars have studied the influence of various institutional and environmental factors on corporate social responsibility in developed countries (Campbell, 2006). Because the institutional environment of developed countries has a relatively higher marketization level, these studies ignore the imperfect institutional environment of emerging economies in the stage of rapid development. The uniqueness of emerging countries in the economic institution transition will lead to differences between their enterprises and developed countries in terms of social responsibility.The formal institutional environment can promote or change corporate social responsibility activities.Husted and Allen believed that multinational companies would make CSR management decisions under the influence of the external institutional environment of host countries (Husted & Allen, 2006). Campbell believed that enterprises would perform better in social performance under the institutional environment of greater government supervision of enterprises and stricter social responsibility supervision by non-profit organizations (Campbell, 2006). From the perspective of stakeholders, the goal of enterprises is not only to maximize the interests of shareholders, but to maximize the interests of consumers, shareholders, government, environment and other stakeholders.Enterprises actively fulfill social responsibility is conducive to creating a good brand image for enterprises, and conducive to creating a good internal and external environment.Other scholars have found that when consumers find that an enterprise has violated laws and regulations, they will punish the enterprise through word of mouth and behavior, which makes consumers' trust and satisfaction of the enterprise decline.Enterprise's brand image is rely on established between enterprises and consumers of psychological trust between each other to hold, once there are irresponsible behavior, not reached the anticipated goal of consumers, consumers will take various actions to protest area formal institutional environment will actively encourage enterprises to undertake the social responsibility, and create a good brand image for the consumer, Enhance consumer awareness, trust and satisfaction of enterprises.

Based on the above theories, we believe that:

Hypothesis 4: China's regional formal institution has a positive impact on corporate social performance of tourism companies. Specifically, the better the regional formal institution, the better the social performance of tourism companies in the region.

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2.2. Definition of Variables in the Model

2.2.1. Definition of Regional Formal Institution Variables

In this study, market index is used to analyze the data of regional formal institution, and five indexes constructed by market index are used to reflect the development degree of regional formal institution.

(1) Relationship Index between Government and Market (RIGM)

One of the most important measures of market-oriented reform is the proportion of economic resources allocated by the market. In the past, social resources were mainly allocated by the government, which to some extent would cause injustice and waste of social resources.This study holds that higher proportion of economic resources allocated by the market, less government intervention on enterprises and reduced government scale have better promotion effect on the tourism development level of this region.

(2) Development Index of Non-state-owned Economy (DINE)

Since the reform and opening up, non-state-owned economy has made outstanding contribution to China's economic growth and played an important role in promoting economic marketization and economic institution reform. Therefore, it is of great significance to measure the development degree of non-state-owned economy in each region's tourism industry for measuring the marketization degree of tourism development in each region.

(3) Development Degree of Product Market (DDPM)

Whether the product price is formed by the market or decided by the government is an important index reflecting the degree of marketization.The reduction of local protection in the tourism commodity market will also have different effects on the tourism development level of the region.

(4) Development Degree of Factor Market (DDFM)

Due to the characteristics of the tourism industry, it often needs a large amount of financial support and human support, so the marketization degree of the financial industry, the supply of labor force and the marketization degree of patented technological achievements all affect the development degree of the tourism factor market.

(5) Development of Market Intermediary Organization and Legal Institution Environment (DMIO-LIE)

An intermediary organization should be provided by any well-developed market. Its main responsibility is to provide legal, consulting, financial and other intermediary services for enterprises. No successful enterprise can survive without the services provided by other companies. At the same time, the degree of help of industry associations to enterprises cannot be ignored. The same is true of the travel industry. Maintaining the legal environment of tourism market is also crucial to the development of tourism industry.

The research data of regional formal institutional variables came from The Report on Market Indexes by Provinces in China published in 2018.

2.2.2. Definition of Foreign Direct Investment (FDI) Variables

In this study, the actual utilization of foreign investment (FDI) measured by provinces in China statistical Yearbook was used as the statistical data of FDI.

Research data on foreign direct investment (FDI) are obtained from provincial statistical yearbooks.

2.2.3. Definition of Corporate Performance Variables of Tourism Companies

In this study, the corporate performance of tourism companies is mainly divided into two aspects, one is financial performance, the other is social performance.

The financial performance of listed tourism companies is explicit performance.This study mainly focuses on two indicators. The first is to measure the value created by the enterprise after all the resources available to the enterprise are run, namely the return on Total assets (ROA).Because tourism companies are different from other industry companies, the resources they own are not only the resources of the enterprise itself, but also the basic natural resources such as tourist attractions.Therefore, it is reasonable to use return on total assets (ROA) to measure the maximum performance of a tourism enterprise.The second is the efficiency with which companies use their own capital, known as return on equity (ROE).As a self-operated company, the tourism company also needs development. Therefore, the percentage of after-tax profit divided by net assets can accurately measure the efficiency of the enterprise using its own capital.

Travel company is hidden performance of corporate social performance, under the condition of buyer's market, the service tenet of "customer is god" reflects all for the travel company performance evaluation must

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be can only be achieved by consumers, according to the stakeholder theory, for the evaluation of tourism enterprises is a measure of tourism consumers very important aspect of corporate social performance, By means of questionnaire survey, tourists can make an overall evaluation of their perceived corporate image in the service process of tourism enterprises such as scenic spots, hotels and travel agencies in tourist destinations. A good corporate social image represents a good brand image, and it should be well known and trusted by the audience. In this way, it can get the favor of consumers first in the tourism market and get better development resources.

The research data of corporate performance variables of tourism companies come from relevant industry statistics and questionnaire survey.

3. Data Collection and Research Design

3.1. Sample Selection and Data Sources

3.1.1. Data Samples of China's Listed Tourism Companies

In order to test the impact of regional formal institution and foreign direct investment (FDI) on the financial performance of tourism companies in different regions, we categorized and empirically studied the tourism listed companies that continued to exist in Shanghai and Shenzhen Stock Exchanges from 2008 to 2016 according to seven regions. Compared with general enterprises, tourism enterprises are more dependent on local natural or cultural resources. Different regions have different natural resources or cultural resources, so the investigation by region, can intuitively understand the development of tourism companies in different regions.

The data used in this study came from CSMAR database. At the same time, this study will divide 33 listed companies that meet the requirements according to the division method of seven regions, and the results are shown in the following table:

Table 1. Statistical results of sample grouping.

Region	Freq.	Percent	Cum.
In the northeast	31	8.01	8.01
East China area	65	16.8	24.81
In central China	36	9.3	34.11
In north China	84	21.71	55.81
In south China	49	12.66	68.48
The northwest region	63	16.28	84.75
In the southwest	59	15.25	100
Total	387	100	/

According to the statistical results in Table 1, there were 31 annual observations of listed tourism companies in northeast China, accounting for 8.01% of the total observed values.There were 65 annual observed values of listed tourism companies in East China, accounting for 16.80% of the total observed values. There were 36 annual observed values of listed tourism companies in central China, accounting for 9.30% of the total observed values.There were 84 annual observed values of listed tourism companies in North China, accounting for 21.71% of the total observed values.There were 49 annual observations of listed tourism companies in South China, accounting for 12.66% of the total observed values.There were 63 annual observed values of listed tourism companies in northwest China, accounting for 16.28% of the total observed values. There were 59 annual observations of listed tourism companies in southwest China, accounting for 15.25% of the total observations.

3.1.2. Questionnaire Design and Sample

To test area in different areas of the formal institutional effects on the region's tourism corporate social performance, we adopted the way of questionnaire survey, through to the consumers to travel in the domestic various provinces perceived corporate brand image in the process of evaluation, selection of tourism enterprises scenic spots, hotels and travel agencies, mainly in the form of online questionnaire.The questionnaire mainly consists of two parts. In the first part, a number of measurement indicators are designed in the form of a scale to evaluate the brand awareness, brand trust and tourist satisfaction of tourism

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enterprises.These can represent consumers' evaluation of the social performance of tourism enterprises.The second part is the basic information of consumers, mainly involving gender, age, occupation, education, monthly disposable income, education level and other factors.The questions in the first part are measured by Linkert level 5 scale. For each item in the questionnaire, 1-5 represent strongly disagree, disagree, uncertain, agree and strongly agree.

The results of the questionnaire are shown in Table 2. A total of 517 questionnaires were distributed in this survey, 17 invalid ones with obvious logical errors were excluded, and 500 valid ones were obtained, with an effective rate of 96.7%, which is reasonable.

Table 2. Sample characteristics table.

Level I	Level II	Count	Accounted for	Sample characteristics
Gender	Male	196	39.2%	There is a slight gap between the number of male and female tourists, and a slight gap between the number of female tourists.
	Female	304	60.8%	
Age	Age 17 and under	31	6.2%	There are more young and middle-aged tourists, followed by teenagers and elderly tourists. Considering the actual situation, the age distribution is relatively reasonable.
	At the age of 18 to 24	123	24.6%	
	25 to 34 years old	200	40%	
	35 to 54	118	23.6%	
	55-64 years old	24	4.8%	
	Age 65 and above	4	0.8%	
By the education The degree of	High school and below	27	5.4%	The distribution of education level is consistent with that of age, with bachelor degree or above accounting for the largest proportion.
	Specialized subject	34	6.8%	
	University degree	246	49.2%	
	A master's degree	187	37.4%	
	PhD and above	6	1.2%	
Professional	The teacher	41	8.2%	Students account for more than 40%, and the distribution is consistent with age and education level. White-collar workers and professional and technical personnel account for about 20%, followed by civil servants and retirees.
	White collar workers	116	23.2%	
	students	203	40.6%	
	Professional and technical personnel	108	21.6%	
	Civil servants	30	6%	
	Retiree	2	0.4%	
Monthly disposable income	2000 yuan of the following	41	8.2%	Monthly disposable income is concentrated in 2K-4K, accounting for nearly 40%, which is consistent with part of the occupation and more scientific.
	From 2001 to 4000 yuan	189	37.8%	
	From 4001 to 8000 yuan	132	24.6%	
	From 8001 to 12000 yuan	110	22%	
	From 12000 to 16000 yuan	25	5%	
	More than 16000 yuan	3	0.6%	

3.1.2.1. Reliability and Validity Test of the Questionnaire

Reliability analysis refers to the repeated measurement of the same object using the same method to test whether the measurement results have a certain stability, which directly determines whether the data obtained from the investigation is valid.In this paper, the reliability of the collected 500 valid questionnaires is analyzed, and the α coefficient is 0.708> 0.7, indicating that the questionnaires are of certain value.On the other hand, validity refers to the difference in the true value reflected by the difference in the survey among the survey objects.The validity of the sample data was analyzed using THE KMO test in SPSS.The KMO validity coefficient is 0.819 > 0.8, indicating that the questionnaire validity is acceptable. In summary, the questionnaire has certain reliability and validity and can be used.

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3.2. Selection of Variables

3.2.1. Explained Variables

In the empirical study of the relationship between capital structure and corporate financial performance, the indicators to measure corporate financial performance mainly include return on total assets (ROA), return on equity (ROE) and Tobin's Q value.This paper selects return on total assets (ROA) and return on equity (ROE) as the indicators to measure corporate financial performance.The rate of return on total assets is the ratio of net profit to average total assets, which reflects the contribution of all resources to the operating results and reflects the effect of comprehensive utilization of enterprise assets.Return on equity is the percentage of an enterprise's after-tax profit divided by its net assets, which is used to measure the efficiency of an enterprise's use of its own capital. The above variables are explained in Table 3.

Table 3. Explained variables.

Variable symbol	The variable name	A formula to calculate	Variable types
ROA	Return on total assets	Net profit/Total assets	Explained variable
ROE	Return on equity	After-tax profit/net assets	Explained variable

With the development of stakeholder theory, more clear and institutionatic methods have been developed, and scholars have begun to realize that corporate social performance is the responsibility management of all stakeholders. As one of the most important stakeholders of tourism companies, consumers' perceived awareness, trust and satisfaction of tourism companies are important factors to measure brand image, and also important indicators that can affect the social performance of enterprises. The above variables are explained in Table 4.

Table 4. Explained variables.

Variable symbol	The variable name	Variable types
PL	Popularity (popularity)	Explained variable
TR	Degree of trust	Explained variable
ST	Satisfaction	Explained variable

3.2.2. Explanatory Variables

This study mainly examines firm performance from the perspective of foreign direct investment (FDI) and regional formal institution (MIA).Therefore, in the selection of explanatory variables, the actual number of utilized foreign capital is used to measure foreign direct investment (FDI), and five indicators constructed by market index are used to reflect the development degree of regional formal institution (MIA).Among them, regional formal institution (MIA) is divided into the relationship index between government and market (RIGM), the development index of non-state-owned economy (DINE), the development degree of product market (DDPM), the development degree of factor market (DDFM), the development of market intermediary organization and legal institution environment (DMIO-LIE).The above variables are explained in Table 5.

Table 5. Explanatory variables.

Variable symbol	The variable name	Note	Variable types
FDI	Foreign direct investment	Number of foreign capitals actually utilized	Explanatory variables
MIA	Market aggregate index	/	Explanatory variables
RIGM	Index of the relationship between government and market	/	Explanatory variables
DINE	Development index of non-state economy	/	Explanatory variables
DDPM	The development of the product market	/	Explanatory variables
DDFM	The degree of development of factor markets	/	Explanatory variables
DMIO-LIE	Market intermediary organization develops legal institution environment	/	Explanatory variables

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3.2.3. Control Variables

The selection of control variables should try to consider the important factors that affect enterprise performance, so as to make the empirical results more accurate.The following control variables were selected in this study:

Company Size.The size of an enterprise, to a large extent, will affect the strategic decisions made by the enterprise and the business performance of the enterprise.Among all indicators, the company's asset stock can well reflect the size of the company, and the natural log of the company's total assets at the end of the year is taken as the substitute variable of the company's size.

Age of the company.The age of an enterprise also has a certain impact on the performance of a company. The performance of a newly born enterprise is usually low because it is at the beginning of the enterprise, but with the increase of the age of the company, the performance of the company will also increase.However, when the company's years grow to a certain extent, the performance of the company will fall back to some extent because the enterprise institution fails to keep up with the current situation and other objective reasons.

Concurrent positions of chairman and general manager of the company (Dual).The power of the management can affect the company's performance, and the greater the power, the greater the volatility of the company's performance.Although part-time job is beneficial to improve the decision-making efficiency of the company, it will increase the probability of the opportunistic behavior of the enterprise management, resulting in the reduction of enterprise performance.When the chairman of the board and the general manager of the company are the same, take 1; when the chairman of the board and the general manager of the company are different, take 0.The control variables are explained in Table 3.

Table 6. Control variables.

Variable symbol	The variable name	A formula to calculate	Variable types
Size	The enterprise scale	LN(Total assets at end)	Control variables
Age	Enterprise fixed number of year	Year - Year of establishment	Control variables
Dual	Chairman and General Manager Whether part-time	If it holds concurrently, it takes 1 We take O when we separate	Control variables
Board	Proportion of independent directors	Proportion of independent directors = Number of independent directors/Total number of directors	Control variables

(4) Proportion of independent directors (Board). Ye, Lu, and Zhang (2007) believed that the variable of independent directors was significantly negatively correlated with the capital occupation of major shareholders, which indicated that independent directors could restrain major shareholders' embezzlement of the company to some extent, avoid monopolistic decision-making to some extent, and benefit the development of the company.

3.3. Data Cleaning

These data are processed as follows:

(1) In order to select the most suitable listed companies for data analysis, the author eliminated the enterprises shown as ST and PT.

(2) The listed companies with missing key data are eliminated. There are many variables involved in the study, and the listed companies with missing key variables are eliminated.

(3) Excluding listed companies with abnormal data, such as some listed companies with asset-liability ratio greater than 1.

(4) In order to eliminate the influence of extreme values, the author used winsor2 command to indent 1% and 99% of continuous variables.

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4. Empirical Test and Analysis

4.1. Descriptive Statistical Analysis

According to the descriptive statistical analysis of each variable by region, there is a big gap between the corporate performance, foreign direct investment level and regional formal institution level of listed tourism companies in seven regions in China.The specific situation is as follows:

The return on total assets (ROA) of listed tourism companies was the highest in northwest China, with an average value of 0.095.The second was Central China, with an average of 0.094.East China, Northeast China, Southwest China, south China;North China had the lowest average value of 0.036.

The return on equity (ROE) of listed tourism companies was the highest in central China, with an average of 0.093. The second was northeast China, with an average of 0.088.South China, Southwest China, east China;The lowest values were 0.055 in northwest China and 0.054 in North China.

Based on the above two indicators, it can be found that under different observation indicators, the performance ranking of listed tourism companies in central China is relatively stable, and they are all at a good level of performance.This shows that the development of listed tourism companies in central China is better and more stable, which may be related to the rich tourism resources in central China.However, the ranking of the northwest region fluctuates greatly, and the northwest region has the best performance under the ROA index.But in terms of ROE, the rankings are the worst.This shows that in addition to net assets, most of the listed tourism companies in northwest China have a greater advantage in brand value.However, the performance of north China is poor in both indicators, indicating that listed tourism companies in this region need to conduct in-depth development of tourism resources in the region to try to improve corporate performance.

Foreign direct investment (FDI) is the highest in south China, with an average of 1.13E+06.Secondly, the northeast region, with an average of 1.08E+06;The third is east China, with an average of 658593.North China, central China and Southwest China followed;The average value was 166,872 in northwest China.As can be seen from this ranking, coastal areas or border areas bordering economically developed countries have greater advantages in acquiring foreign direct investment, while the level of foreign direct investment in inland areas needs to be improved.

The total market index (MIA) was the highest in Southwest China with an average value of 2.011.The mean values of north China, East China, Northwest China and South China are all very close.Central China and Northeast China have the lowest total market index, with an average of 0.674 and 0.601, respectively.This indicates that southwest China has the highest degree of marketization, and that the local government has adopted a relatively relaxed regulatory attitude towards resource allocation.Central China and North China are just the opposite.

The relationship index between government and market (RIGM) is in the order of southwest > North China > South China > Northwest > East China > Central China > Northeast China.

The DINE of non-state-owned economy is in the order of southwest China > Northeast China > Northwest China > South China > Central China > East Hu-Aohu Region > North China.

The DDPM of product market was in the order of Southwest China > South China > North China > Northwest China > East China > Central China > Northeast China.

The development degree of factor market (DDFM) is ranked by mean, and the order is North China > East China > Northwest China > Southwest China > Central China > South China > Northeast China.

The development of market intermediary organization and legal institution environment (DMIO-LIE) were ranked according to the mean value, and the order was North China > South China > East China > Southwest China > Northwest China > Northeast China > Central China.

4.2. Correlation Analysis

According to the research needs of this topic, correlation analysis is used to study the correlation among 13 items of listed tourism companies' financial performance, foreign direct investment level, total marketization index level and all control variables, and Pearson correlation coefficient is used to show the strength of the correlation. According to Pearson's correlation coefficient, the correlation below 0.3 is weak, 0.3-05 is low, 0.5-0.8 is medium, and above 0.8 is strong. The correlation results among variables are shown in Table 7.

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Table 7. Correlation analysis of each variable.

Variables	ROA	ROE	FDI	MIA	RIGM	DINE	DDPM
ROA	1						
ROE	0.930***	1					
FDI	0.0400	0.0580	1				
MIA	0.216***	0.232***	0.728***	1			
RIGM	0.130	0.212**	0.535***	0.745***	1		
DINE	0.117	0.110	0.731***	0.801***	0.589***	1	
DDPM	0.0720	0.0450	0.428***	0.318***	0.508***	0.497***	1
DDFM	0.222***	0.282***	0.407***	0.818***	0.432***	0.450***	0.148**
DMIO-LIE	0.163*	0.216**	0.657***	0.907***	0.495***	0.613***	0.0200
Size	0.355***	0.364***	0.319***	0.449***	0.181**	0.325***	0.0390
Age	0.287***	0.281***	0.0330	0.164***	0.226***	0.100	0.0630
Board	0.0450	0.0450	0.0210	0.121*	0.00400	0.0780	0.145*
Dual	0.149**	0.0390	0.129**	0.0070	0.141*	0.0400	0.296***
Variables	DDFM	DMIO-LIE	Size	Age	Board	Dual	
DDFM	1						
DMIO-LIE	0.833***	1					
Size	0.423***	0.488***	1				
Age	0.117	0.113	0.0220	1			
Board	0.180**	0.146*	0.264***	0.0230	1		
Dual	0.151*	0.0580	0.277***	0.126**	0.129**	1	

Note: * P < 0.05, ** P < 0.01, *** P < 0.001.

4.3. Analysis of Regression Results

4.3.1. Regional Formal Institution, Foreign Direct Investment and Corporate Financial Performance of Tourism Companies

According to the research needs of this study, it is necessary to use regression analysis to study the influence relationship among 13 items of financial performance, foreign direct investment level, total marketization index level and all control variables of listed tourism companies. Combined with the correlation analysis in the previous section, the main regression model is defined as follows:

Regression model 1: The explained variables are ROA, the explanatory variables are DDFM and DMIO-LIE, and the control variables are Size, Age and Dual.

Regression model 2: The explained variables are ROE, the explanatory variables are DDFM, DMIO-LIE and DINE, and the control variables are Size and Age.

Regression model 3: The explained variable is FDI, the explanatory variable is MIA, and the control variables are Size and Dual.

Regression model 4: Explained variables are FDI, explanatory variables are DDFM, DMIO-LIE, DINE, RIGM and DDPM, and control variables are Size and Dual.

According to the summary analysis of regression results in Table 8, the adjustment R of regression model 12Is 0.163, indicating that this model can explain 16.3% of the changes in ROA.Among them, the regression coefficients of explanatory variable DDFM and control variables Size and Age are significant, indicating that these three variables all have an impact on ROA.The regression coefficient B value of DDFM and Size is greater than 0, indicating that these two factors have a positive influence on ROA.

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Table 8. Summary of regression results.

Variables	(1) ROA	(2) ROE	(3) FDI	(4) FDI
DDFM	0.005* (0.002)	0.006* (0.004)		44256.431 (24664.425)
DMIO-LIE	0.002 (0.002)	0.004 (0.003)		115964.622*** (19737.802)
Size	0.011* (0.005)	0.023*** (0.006)	18391.402 (36112.112)	32497.122 (41858.921)
Age	0.003*** (0.001)	0.004*** (0.001)		
Dual	0.025 (0.016)		356008.601** (115979.033)	160020.606 (141091.134)
DINE		0.001 (0.004)		132383.607*** (33724.531)
MIA			285026.243*** (21874.141)	
RIGM				37000.409 (30138.948)
DDPM				183040.627*** (48133.118)
_cons	0.178 (0.103)	0.413** (0.130)	513228.643 (716775.002)	923518.424 (878346.114)
N	137	136	245	136
R^2	0.193	0.227	0.475	0.683
adj. R^2	0.163	0.198	0.469	0.666

Note: *P < 0.05, **P < 0.01, ***P < 0.001.

The regression coefficient B values of Age are all less than 0, indicating that this factor has a negative influence on ROA.Based on the above analysis, the regression equation of this model can be written as:

ROA = 0.00506 x DDFM + 0.0113 * Age Size - 0.00305-0.178 + e

From this regression equation, it can be seen that for every unit increase in DDFM, ROA will increase by 0.00506 units. For each increase of Size unit, ROA will increase by 0.0113 units;For each increase of Size unit, ROA will increase by 0.0113 units;For every unit increase in Age, ROA decreases by 0.00305 units.

Adjustment R of regression model 22Is 0.198, indicating that the model can explain 19.8% of the changes in ROE.Among them, the regression coefficients of explanatory variable DDFM and control variables Size and Age are significant, indicating that these three variables all have an impact on ROE.The regression coefficient B value of DDFM and Size is greater than 0, indicating that these two factors have a positive influence on ROE.The regression coefficient B values of Age are all less than 0, indicating that this factor has a negative impact on ROE.Based on the above analysis, the regression equation of this model can be written as:

ROE = 0.00677 x DDFM + 0.0233 * Age Size - 0.00388-0.413 + e

From this regression equation, it can be seen that for every unit increase in DDFM, ROE will increase by 0.00677 units.For each unit increase in Size, ROE will increase by 0.0233 units;For every unit increase in Age, ROE decreases by 0.00388 units.

Adjustment R of regression model 32Is 0.469, indicating that this model can explain 46.9% of the reasons for FDI changes.Among them, the regression coefficients of explanatory variable MIA and control variable Dual are significant, indicating that these two variables have an impact on FDI.MIA's regression coefficient B value is greater than 0, indicating that these two factors have a positive impact on FDI.The regression

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coefficient B values of Dual are all less than 0, indicating that this factor will have a negative impact on FDI.Based on the above analysis, the regression equation of this model can be written as:

FDI = 285026.2 * Dual MIA - 356008.6-513228.6 + e

From this regression equation, it can be seen that every unit increase in MIA, FDI will increase by 28,5026.2 units;For each additional unit of Dual, the ROE will decrease by 356008.6 units.

Adjustment R of regression model 42Is 0.666, indicating that the model can explain 66.6% of the changes in ROE.Among them, the regression coefficients of explanatory variables DMIO-LIE, DINE and DDPM all show significant significance, which indicates that these three variables all have an impact on FDI.Moreover, the regression coefficient B value of these three variables is greater than 0, indicating that these three factors have a positive influence on FDI.Based on the above analysis, the regression equation of this model can be written as:

FDI = 115964.6 * DINE DMIO-LIE + 132383.6 + 183040.6 x DDPM- 923518.4 + e

From this regression equation, it can be seen that every unit increase in DMIO-LIE, FDI will increase by 115,964.6 units;If DINE increases by one unit, FDI will increase by 132383.6 units;As DDPM increases by one unit, FDI will increase by 183040.6 units.

4.3.2. Impact of Regional Formal Institution on Corporate Social Performance of Tourism Companies

In order to study the relationship between regional formal institution and social performance of tourism enterprises as well as the control variables, the ordered Logit model is used to make regression between marketization index and perceived popularity, trust and satisfaction of tourism enterprises' brands.

For influence of regional formal institution on visibility of scenic spots, R of regression models are greater than 0.3, indicating that the above five models can explain more than 30% of the changes in visibility of scenic spots based on tourists' perception.Among them, the regression coefficients of explanatory variables MIA, RIGM, DINE, DMIO-LIE, DDFM and control variables Year, EDU, job all present a positive significant relationship at 1% level. It shows that the total marketization index, the relationship between government and market, the development of non-state-owned economy, the development of market intermediary organizations and legal environment, and the development degree of factor market all have a positive impact on the visibility of scenic spots.The coefficient of explanatory variable DDPM of regression model 4A4 is 0.089, which is not significant, indicating that the development degree of product market has no influence on the popularity of scenic spots.

For influence of regional formal institution on the trust degree of scenic spots, R of regression model are around 0.3, indicating that the above six models can explain about 30% of the changes in scenic spot trust based on tourists' perception.Among them, the regression coefficients of explanatory variables MIA, RIGM, DINE, DMIO-LIE, DDFM and control variables Edu and Job were all significant at 1% level, and the coefficient of DDPM was 0.144**, significant at 5% level. It shows that the total marketization index, the relationship between government and market, the development of non-state-owned economy, the development of market intermediary organizations and legal environment, the development degree of factor market, and the development degree of product market all have a positive impact on the trust degree of scenic spots.

For influence of regional formal institution on scenic spot satisfaction, R of regression models respectively 0.316, 0.297, 0.297, 0.296 and 0.314, indicating that the above five models can explain the reasons of 31.6%, 29.7%, 29.7%, 29.6% and 31.4% changes of scenic spot satisfaction based on tourists' perception.Among them, the regression coefficients of explanatory variables MIA, RIGM, DINE, DMIO-LIE, DDFM and control variables Year, EDU, job all present a positive significant relationship at 1% level. It shows that the total marketization index, the relationship between government and market, the development of non-state-owned economy, the development of market intermediary organizations and legal environment, and the development degree of factor market all have a positive impact on the satisfaction of enterprises in scenic spots.The coefficient of explanatory variable DDPM of regression model 4C4 is 0.076, which is not significant, indicating that the development degree of product market has no significant relationship with enterprise satisfaction of scenic spots.

For influence of regional formal institution on hotel visibility, R of regression modelsare greater than 0.3, indicating that the above five models can explain more than 30% of the changes in hotel visibility based on tourists' perception.Among them, the regression coefficients of explanatory variables MIA, RIGM, DINE, DMIO-LIE, DDFM and control variables Income, EDU, job all present a positive significant relationship at

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1% level. It shows that the total market index, the relationship between the government and the market, the development of non-state-owned economy, the development of market intermediary organizations and the legal environment, the development of factor market have a positive impact on the hotel visibility.The coefficient of DDPM of explanatory variable of regression model 4D4 is 0.116*, which is significant at the level of 10%, indicating that the development degree of product market has a certain positive impact on hotel visibility.

For influence of regional formal institution on hotel trust, R of regression models are 0.197, 0.183, 0.174, 0.181 and 0.187 respectively, indicating that the above five models can explain 19.7%, 18.3%, 17.4%, 18.1% and 18.7% changes in hotel trust based on tourists' perception.Among them, the explanation variable MIA, RIGM, DINE, DMIO-LIE, DDFM regression coefficients in 1% significance level, indicating the total marketization index, the government and the market relations, the development of non-state economy, development of market intermediary organizations, and the rule of law environment, elements of the growing degree of the market, product market development degree are significant positive impact on the hotel's trust.In regression model 4E4, the regression coefficient of explanatory variable DDPM is 0.048, indicating that the development degree of product market has no significant impact on hotel trust.

For influence of regional formal institution on hotel satisfaction, regression coefficients of explanatory variables MIA, RIGM, DINE, DMIO-LIE and DDFM in regression models are 0.215***, 0.174***, 0.206***, 0.106*** and 0.086*** *, respectively, which were significant at 1% level. It shows that the total marketization index, the relationship between government and market, the development of non-state-owned economy, the development of market intermediary organizations and legal environment, the development degree of factor market, the development degree of product market all have a significant positive impact on hotel satisfaction.In regression model 4F4, R2Is 0.0834, indicating that the model can explain 8.34% of the change in hotel satisfaction based on tourists' perception. The regression coefficient of explanatory variable DDPM is 0.08, indicating that the development degree of product market has no significant impact on hotel satisfaction. For influence of regional formal institution on the popularity of travel agencies, the regression coefficients of explanatory variables MIA, RIGM, DDPM, DMIO-LIE, DDFM and control variables Gender, income, and year do not show a significant relationship. It shows that the total marketization index, the relationship between government and market, the development degree of product market, the development of market intermediary organizations and legal environment, and the development degree of factor market all have no influence on the popularity of travel agencies.R of regression model 4G32Is 0.135, indicating that this model can explain 13.5% of the change in tourist perception of travel agency visibility. The coefficient of explanatory variable DINE is 0.086**, which is significant at 5% level, indicating that the development level of non-state-owned economy has a certain positive impact on the visibility of travel agencies.

For influence of regional formal institution on trust of travel agencies, regression coefficients of explanatory variables MIA and DMIO-LIE in regression models 4H1 and 4H6 are 0.119*** and 0.055*** respectively, which are significant at 1% level. Overall marketization index, development of market intermediary organizations and legal environment have a significant positive impact on trust of travel agencies. RIGM and DDFM are significant at the level of 10%, while DINE is significant at the level of 5%, indicating that the relationship between government and market, the development degree of factor market and the development level of non-state-owned economy have a positive impact on the trust degree of travel agencies to a certain extent.In regression model 4H4, the regression coefficient of explanatory variable DDPM is 0.006, indicating that the market development degree of Jianming products has no influence on the trust degree of travel agencies.

For influence of regional formal institution on travel agency satisfaction, R of regression models 4I1, 4I2 and 4I5 can be seen2 Respectively 0.085, 0.0823 and 0.0824, indicating that the above three models can explain the reasons of 8.5%, 8.23% and 8.24% change of travel agency satisfaction based on tourists' perception. The regression coefficients of explanatory variables MIA, RIGM and DDFM were 0.117**, 0.098** and 0.067**, respectively, showing a significant positive relationship at the level of 5%, indicating that the total marketization index, the relationship between government and market, and the development degree of factor market all have a positive impact on travel agency satisfaction.The coefficient of explanatory variables DINE and DDPM of regression model 4I3 and 4I4 are not significant, indicating that the development level of non-state-owned economy and the development degree of product market have no influence on the satisfaction of travel agencies.

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4.3.3. Robustness Test

In this paper, the ordered Logit model is used to replace the original ordered probit model. After inspection, the size, direction and significance of MIA coefficient do not change significantly, indicating that the original conclusion has a certain robustness.

4.4. Analysis of Regulatory Effect

According to the research needs of this study, it is necessary to use the moderating effect analysis to study the moderating effect of China's regional formal institutions on the relationship between corporate performance of listed tourism companies.Although in the correlation analysis above, FDI is not correlated with ROA and ROE in pairs, the moderating effect test is still attempted considering that there may be a relationship between Supressor.The main regulatory effect models are defined as follows:

Adjusting model 1: The explained variable is ROA, the explanatory variable is FDI, the moderating variable is MIA, the interaction term is MIA*FDI, and the control variables are Size, Age, Board and Dual.

Moderating model 2: The explained variable is ROA, the explanatory variable is FDI, the moderating variable is RIGM, the interaction term is RIGM *FDI, and the control variable is Size.

Adjusting model 3: The explained variable is ROA, the explanatory variable is FDI, the regulating variable is DINE, the interaction term is DINE*FDI, and the control variables are Size, Age, Board and Dual.

Adjusting model 4: The explained variable is ROA, the explanatory variable is FDI, the adjusting variable is DDPM, the interaction item is DDPM*FDI, and the control variables are Size, Age, Board and Dual.

Adjusting model 5: The explained variable is ROA, the explanatory variable is FDI, the regulating variable is DDFM, the interaction term is DDFM*FDI, and the control variables are Size, Age, Board and Dual.

Adjustment model 6: The explained variable is ROA, the explanatory variable is FDI, the regulating variable is DMIO-LIE, the interaction item is DMIO-LIE*FDI, and the control variables are Size, Age, Board and Dual.

The following is a detailed analysis of the seven regulatory effect models:

Table 9. Summary of results of moderating effect model 1.

Variables	**(1)** **ROA**	**(2)** **ROA**
FDI	1.35 e-08* (6.51 e-09)	8.13 e-08*** E-08 (2.200)
MIA	0.010*** (0.002)	0.010** (0.003)
interact701		1.16 e-08*** (2.65 e-09)
Size		0.019*** (0.003)
Age		0.002*** (0.001)
Board		0.113* (0.054)
Dual		0.009 (0.011)
_cons	0.016 (0.016)	0.350*** (0.067)
N	250	244
R^2	0.057	0.295
adj. R^2	0.049	0.274

Note: Standard errors in parentheses.
* P < 0.05, ** P < 0.01, *** P < 0.001.

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According to the summary of data analysis results of moderating effect model 1 in Table 9, it can be seen that (1) is a simple regression model, and (2) is a regression model with interaction terms and moderating variables added on the basis of (1).

According to regression model (1), explanatory variable FDI has a significant influence on explained variable ROA at the level of 0.05.The moderating variable MIA also had a significant influence on the explanatory variable ROA at 0.001 level.After (2) the addition of interaction terms and moderating variables, explanatory variable FDI has a more significant impact on the explained variable ROA at 0.001 level, and the moderating variable MIA has a more significant impact on the explained variable ROA at 0.01 level.At the same time, the interaction term Interact701 =FDI*MIA was also significant at 0.001 level, indicating that the moderating effect was significant.And the adjustment R of (2)2Is 0.274, that is to say, after the addition of interaction terms, the regression model can explain 27.4% of the changes in ROA, and the model fits well.

Then determine whether this is a positive or negative regulating effect: the coefficient of Interact701 is -(1.16E-08) less than 0, and the negative coefficient can be judged as a negative regulating effect.That is, the moderating variable MIA has a weakened effect on the explanatory variable FDI. That is to say, the higher the total marketization index is, the less the influence of foreign direct investment on the return on total assets of listed tourism companies is.This may be because the higher the marketization index is, the higher the marketization income of listed tourism companies will be, and thus the urgency and dependence on foreign capital will decrease.Based on the above analysis, the mathematical model equation of the moderating effect model can be written as:

ROE= 8.13E-08 ×FDI+0.00968×MIA- (1.16E-08) × Interact701 +0.0191× sie-0.00248 ×Age-0.113× board-0.350 + E

It can be seen from this model equation that the return on total assets of listed tourism companies will decrease by 1.16E-08 units when the adjustment effect increases by one unit.

Table 10. Summary of results of moderating effect model 2.

Variables	**(1)** **ROA**	**(2)** **ROA**
FDI	5.66 e-09 (7.61 e-09)	7.51 e-08** E-08 (3.08)
RIGM	0.004 (0.003)	0.006* (0.003)
interact702		1.15 e-08*** (3.92 e-09)
Size		0.015*** (0.004)
_cons	0.023 (0.018)	0.301*** (0.090)
N	138	138
R^2	0.010	0.151
adj. R^2	0.005	0.126

Note: Standard errors in parentheses.
* P < 0.1, ** P < 0.05, *** P < 0.01.

According to the summary of data analysis results of moderating effect Model 2 in Table 10, it can be seen that in regression model (1), explanatory variable FDI and moderating variable RIGM have no significant influence on explained variable ROA.However, after the addition of interaction terms and moderating variables in (2), the explanatory variable FDI has a significant impact on the explained variable ROA at the level of 0.01, and the moderating variable RIGM also has a significant impact on the explained variable ROA at the level of 0.05.At the same time, interaction term Interact702 =FDI* RIGM also showed a significant level of 0.001, indicating that the moderating effect exists significantly.And the adjustment R of (2)2Is 0.126, that is to say, the regression model can explain 12.6% of the changes in ROA after the addition of interaction terms, and the model fits well.

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Then determine whether this is a positive or negative regulating effect: the coefficient of Interact702 is -(1.15E-08) less than 0, and the negative coefficient can be judged as the negative regulating effect.That is, the moderating variable RIGM has a weaker effect on the explanatory variable FDI, that is to say, the higher the relationship index between government and market, the smaller the impact of foreign direct investment on the return on total assets of listed tourism companies.Based on the above analysis, the mathematical model equation of the moderating effect model can be written as:

ROE= 7.51E-08 ×FDI+0.00606× RIGM- (1.15E-08) × Interact702 +0.0145× size-0.301 + E

It can be seen from this model equation that the return on total assets of listed tourism companies will decrease by 1.15E-08 units when the adjustment effect increases by one unit.

Table 11. Summary of results of moderating effect model 3.

Variables	**(1) ROA**	**(2) ROA**
FDI	1.60 e-08 (9.92 e-09)	0.001** E-08 (3.82)
DINE	0.008 (0.004)	0.009 (0.004)
interact703		1.38 e-08*** (4.00 e-09)
Size		0.014** (0.005)
Age		0.003** (0.001)
Board		0.059 (0.076)
Dual		0.016 (0.017)
_cons	0.001 (0.022)	0.263** (0.093)
N	138	135
R^2	0.028	0.252
adj. R^2	0.014	0.211

Note: Standard errors in parentheses.
**P < 0.01, ***P < 0.001.

According to the summary of data analysis results of moderating effect model 3 in Table 11, it can be seen that in regression model (1), explanatory variable FDI and moderating variable DINE have no significant influence on explained variable ROA.However, after the addition of interaction terms and moderating variables in (2), the explanatory variable FDI has a significant influence on the explained variable ROA at the level of 0.01, and the moderating variable DINE has a significant influence on the explained variable ROA at the level of 0.05.At the same time, the interaction term Interact703 =FDI* DINE was also significant at 0.001 level, indicating that the moderating effect existed significantly.And the adjustment R of (2)2Is 0.211, that is to say, the regression model can explain 21.1% of the changes in ROA after the addition of interaction terms, and the model fits well.

Then determine whether this is a positive or negative regulating effect: the coefficient of Interact703 is -(1.38E-08) less than 0, and the negative coefficient can be judged as a negative regulating effect.That is, the moderating variable DINE has a weaker effect on the explanatory variable FDI, that is to say, the higher the development index of non-state-owned economy is, the less influence foreign direct investment has on the return on total assets of listed tourism companies.Based on the above analysis, the mathematical model equation of the moderating effect model can be written as:

ROE=0.000000111×FDI+0.00889× DINE- (1.38E-08) × Interact703 +0.0140× SIe-0.00276 × age-0.263 + E

It can be seen from this model equation that the return on total assets of listed tourism companies will decrease by 1.38E-08 units when the adjustment effect increases by one unit.

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Table 12. Summary of results of moderating effect model 4.

Variables	(1) ROA	(2) ROA
FDI	2.54 e-09 (7.67 e-09)	9.12 e-10 E-08 (4.68)
DDPM	0.004 (0.004)	0.003 (0.006)
interact704		5.92 e-10 (5.51 e-09)
Size		0.016** (0.005)
Age		0.003** (0.001)
Board		0.069 (0.081)
Dual		0.014 (0.018)
_cons	0.071* (0.029)	0.213 (0.110)
N	138	135
R^2	0.009	0.178
adj. R^2	0.006	0.133

Note: Standard errors in parentheses* P < 0.05, **P < 0.01

Table 13. Summary of results of moderating effect model 5.

Variables	(1) ROA	(2) ROA
FDI	5.96 e-09 (6.76 e-09)	5.26 e-08* E-08 (2.06)
DDFM	0.004* (0.002)	0.012*** (0.003)
interact705		1.11 e-08** (3.43 e-09)
Size		0.013* (0.005)
Age		0.002** (0.001)
Board		0.048 (0.077)
Dual		0.017 (0.018)
_cons	0.018 (0.013)	0.245* (0.101)
N	138	135
R^2	0.047	0.250
adj. R^2	0.033	0.208

Note: Standard errors in parentheses.
* P < 0.05, **P < 0.01, ***P < 0.001.

According to the summary of data analysis results of moderating effect model 4 in Table 12, it can be seen that in regression model (1), explanatory variable FDI does not have a significant influence on explained variable ROA, and moderating variable DDPM does not have a significant influence on explained variable ROA.However, after the addition of interaction terms and control variables (2), the explanatory variable FDI

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still showed no significant influence on the explained variable ROA, and the interaction term Gen Interact704 = DDPM * FDI also showed no significance, and the moderating variable Size showed no significance.Thus it can be concluded that the moderating effect does not exist. That's the end of the analysis.

According to the summary of data analysis results of moderating effect model 5 in Table 13, it can be seen that in regression model (1), explanatory variable FDI has no significant influence on explained variable ROA.The moderating variable DDFM had significant influence on the explanatory variable ROA at the level of 0.05.However, after the addition of interaction terms and moderating variables in (2), the explanatory variable FDI has a significant impact on the explained variable ROA at the level of 0.05, and the moderating variable DDFM has a significant impact on the explained variable ROA at the level of 0.001.At the same time, the interaction term Interact705 =FDI* DDFM also showed a significant level of 0.01, indicating that the moderating effect exists significantly. And the adjustment R of (2)2Is 0.208, that is to say, the regression model can explain 20.8% of the changes in ROA after the addition of interaction terms, and the model fits well.

Then determine whether this is a positive or negative regulating effect: the coefficient of Interact705 is -(1.11E-08) less than 0, and the negative coefficient can be judged as the negative regulating effect.That is, the moderating variable DDFM has a weaker effect on the explanatory variable FDI. In other words, the higher the development degree of factor market is, the less the influence of foreign direct investment on the return on total assets of listed tourism companies is.Based on the above analysis, the mathematical model equation of the moderating effect model can be written as:

ROE= 5.26E-08 ×FDI+0.0116× DDFM- (1.11E-08) × Interact705 +0.0133×Size-0.00238× age-0.245 + E

It can be seen from this model equation that the return on total assets of listed tourism companies will decrease by 1.11E-08 units when the adjustment effect increases by one unit.

Table 14. Summary of results of moderating effect model 6.

Variables	**(1)** **ROA**	**(2)** **ROA**
FDI	1.26 e-08 (8.09 e-09)	3.23 e-08* E-08 (1.43)
DMIO-LIE	0.004* (0.002)	0.008*** (0.002)
interact706		6.01 e-09*** (1.61 e-09)
Size		0.012* (0.005)
Age		0.003** (0.001)
Board		0.047 (0.076)
Dual		0.017 (0.017)
_cons	0.026* (0.011)	0.198 (0.101)
N	138	135
R^2	0.039	0.261
adj. R^2	0.025	0.220

Note: Standard errors in parentheses.
* P < 0.05, ** P < 0.01, *** P < 0.001.

According to the summary of data analysis results of moderating effect model 6 in Table 14, it can be seen that in regression model (1), explanatory variable FDI has no significant influence on explained variable ROA. DMIO-LIE had significant influence on Explanatory variable ROA at 0.05 level. However, after the addition of interaction terms and moderating variables in (2), the explanatory variable FDI has a significant impact on the explained variable ROA at the level of 0.05, and the moderating variable DMIO-LIE also has a

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significant impact on the explained variable ROA at the level of 0.001.At the same time, interaction term Interact706 =FDI* DMIO-LIE also showed a significant level of 0.001, indicating that the moderating effect exists significantly.And the adjustment R of (2)2Is 0.220, that is to say, the regression model can explain 22.0% of the changes in ROA after the addition of interaction terms, and the model fits well.

Then determine whether this is a positive or negative regulating effect: the coefficient of Interact706 is -(6.01E-09) less than 0, and the negative coefficient can be judged as the negative regulating effect.That is, DMIO-LIE, the moderating variable, weakens the effect of explained variable on FDI, that is to say, the higher the development of market intermediary organizations and the legal institution environment, the smaller the impact of FOREIGN direct investment on the return on total assets of listed tourism companies.Based on the above analysis, the mathematical model equation of the moderating effect model can be written as:

ROE= 3.23E-08 ×FDI+0.00811× DDFM- (6.01E-09) × Interact76 +0.0118×Size-0.00238× age-0.00250 ×Age+ E.

From this model equation, it can be seen that the return on total assets of listed tourism companies will decrease by 6.01E-09 units when the adjustment effect increases by one unit.

5. Conclusions

For Chinese tourism companies, regional formal institution has a significant impact on their return on total assets (ROA).This paper measures the formal institutional environment of the region through market index, and the market total index (MIA) has a positive impact on the return on total assets of tourism companies, which indicates that a good regional institutional environment can effectively promote the development of the financial performance of tourism companies.Among them, the development degree of factor market (DDFM) has a positive effect on ROA. For listed tourism companies, mature financial institution and sufficient human resources have a positive effect on ROA.There is no significant correlation between the development of market intermediary organization and legal institution environment (DMIO-LIE), the relationship between government and market (RIGM), the development of non-state-owned economy (DINE), and the development degree of product market (DDPM).From the conclusion, the better the regional institutional environment, the less government intervention for enterprises, the better the development of product market and factor market, the higher the operation efficiency of enterprises, the lower the cost of capital, the higher the return rate of tourism companies.

Foreign direct investment (FDI) is a double-edged sword, which has both spillover effect and crowding-out effect. Some studies believe that FDI has significant spillover effect, which can promote enterprises' independent innovation, improve technological innovation ability and further promote enterprise performance growth (Liu & Xiong, 2016). In other literatures, it is believed that the spillover effect of FDI is not significant, but there is a extrusion effect. Foreign capital will inhibit the technological innovation ability of enterprises and have a certain inhibitory effect on the technological progress and development of enterprises in central China (Xu, 2016). This study found that the impact of foreign direct investment on the financial performance of Chinese tourism companies is not significant.This shows that in the process of fdi investment and development in China's tourism enterprises, spillover effect and crowding effect cancel each other to a certain extent. In addition to the spillover effect brought by FDI, more attention should be paid to how to reduce the influence of crowding effect brought by FDI on enterprise performance.The total index of marketization, the relationship index between government and market, the development index of non-state-owned economy, the development degree of factor market, the development of market intermediary organization and legal institution environment have negative moderating effect on the influence of FDI on ROA. This shows that under certain conditions, the regional formal institution will weaken the crowding out effect brought by Foreign direct investment, while China's marketization index will become higher and higher, the utilization level of foreign direct investment should be controlled within a certain limit, and the improvement of enterprise performance should not be overly dependent on foreign capital.

Finally, the total marketization index for the travel consumer awareness in corporate social performance level has a positive effect, respectively, to formal institution for the scenic spot of area, hotel, travel agency tourists trust, satisfaction has a positive effect, this suggests that the tourism enterprise area institution environment can effectively affect the enterprise the management behavior, so as to effectively promote enterprise quality of service, Improve the trust and satisfaction of tourists to tourism enterprises.In terms of

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enterprise well-knownness, formal institution of scenic area and hotel class tourism enterprises has a positive effect, no significant influence on travel agencies, tourist perceived benefit of travel agency profile is not influenced by regional institutional environment, tourists choice of travel enterprises may not be the local travel agency, so the effects of a regional institution environment for the travel agency name recognition. Effectively protect the rights and interests of tourists, reduce tourists' sense of insecurity, reduce tourists' suspicion of tourism enterprises, promote the realization of channel goals, and improve tourists' overall evaluation of tourism enterprises' popularity, trust and satisfaction.

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