

Analysis and Forecast of International Market Layout of Chinese Contractors Under the Background of "One Belt and One Road"

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Abstract

This chapter first of all, on the basis of the existing literature chose seven factors that influence the international engineering market choose these seven factors are analyzed the influence of the international engineering market choice, and put forward these factors impact on Chinese contractors international engineering market selection hypothesis, empirical analysis to make matting for subsequent use of Logistic regression. Secondly, 20 countries and 10 Chinese contractors were selected as samples to collect the index data of all influencing factors and establish the binary Logistic regression model. Then, SPSS software was used to solve the model and analyze the important factors influencing the selection of Chinese contractors in the international market under the background of "One Belt And One Road". Finally, according to the results of empirical analysis, combined with the background of "One Belt And One Road" and the current situation, this paper analyzes and forecasts the current international market layout of Chinese contractors, and puts forward Suggestions and prospects according to the prediction.

Keywords

The belt and road; International project contracting; Market distributing; Logistic regression.

1. Introduction

World shaking changes are taking place in today's world. The pattern of international investment and trade and the rules of multilateral investment and trade are undergoing profound adjustment. The development problems faced by various countries are still serious. In this grim new world situation, the global economy is under tremendous downward pressure. These adverse international situations also have a huge impact on the international engineering contract market. One belt, one road, is still being built in the face of such a difficult external environment. China is still committed to reform and opening up, advocating inclusive and mutually beneficial cooperation and win-win attitude. Driven by one belt, one road, the demand for infrastructure in the world is increasing. The preferential policies for international engineering contractors are more and more, which greatly stimulated the international project contracting market. A large number of international contractors are going upstream in a perplexing environment and actively developing the market. This not only does not make the international engineering contract market decline, but also makes the international contract market improve. According to the statistics of Engineering News Record (ENR) in 2018, the global revenue of 250 international contractors shortlisted in the ENR report in 2018 totaled US \$482.4 billion, a year-on-year increase of 3.1%. This is the first time that the top 250's

international turnover has increased since three consecutive years of decline in 2015, 2016 and 2017.

In 2018, the number of Chinese contractors entering ENR reports reached 69, an increase of four over the same period of last year. The total international revenue reached US \$114 billion, up 15.6% year-on-year, significantly faster than the 5.4% growth of the previous year. In recent years, Chinese contractors have made significant growth in the world, especially in Asia, Africa and the Middle East. One belt, one road strategy in Asia has been the main contributor to the growth of China's Asian region, with the total growth of over 10 billion US dollars. In the Middle East, although the engineering contracting market continues to be sluggish, Chinese contractors still achieve a 23% growth in the adverse environment. In Africa, despite the increasingly difficult market, the turnover of Chinese contractors has also increased by 8%.

This series of data one fully reflects the one belt, one road project, which still has a bright future in the process of the hard recovery of the world economy, and challenges and opportunities coexist. Although more and more scholars pay attention to the problem of international project contracting, there are still few researches on the distribution of international engineering market. Therefore, this paper analyzes and forecasts the international market layout of Chinese contractors under the background of "One Belt And One Road", so as to provide layout reference for Chinese contractors in the complex international environment with positive and important significance.

Research on one belt, one road international project contract, Guo huaili [1] analyzes the strategic connotation and significance of one belt and one road, and interprets the influence of "One Belt And One Road" strategy on the overseas layout of Chinese project contracting enterprises. Xu jing et al. [2] put forward some countermeasures and Suggestions on the existing problems of China's project contracting in the countries along the "One Belt And One Road". Liu maijian et al. [3] research on the cultivation of interdisciplinary international engineering talents under the background of "One Belt And One Road". In recent years, a wide range of researches have been conducted on the international market layout of contractors. Chen Chuan [4] found out the factors influencing international market selection, and established an international market selection model for construction enterprises. Logistic regression analysis method was used to investigate the market entry choices of 39 large Chinese international contractors in 87 countries, and the influence direction of selection factors on contractor market choice was obtained. Finally, discussion and Suggestions on Chinese contractors were given. Guo Ying [5] from 2002 to 2011 admitted to the ENR has international contractors as the object, using the system clustering analysis, analyzed a finalist for the ENR has the distribution of Chinese contractors, and admitted to the ENR has 25 China international contractor has carried on the comprehensive ranking, the Chinese contractors and developed international contractor has carried on the quantitative and qualitative analysis, find out the gap and experience at home and abroad for reference, put forward development countermeasure. Feng Xi [6] first analyzed the development situation and advantages and disadvantages of China's international engineering contracting, and established the evaluation system of the target market of international engineering contracting along the "One Belt and One Road", and then quantified the target market with the analytic hierarchy process and fuzzy evaluation.

2. Model and Hypothesis

2.1. Logistic Regression Model

Logistic regression analysis, also known as Logistic regression analysis, is a generalized linear regression analysis model. Its main USES include looking for influencing factors and predicting the probability of occurrence of a certain situation. The dependent variables of Logistic

regression can be dichotomized or multi-categorized, but dichotomized variables are more commonly used. Here we use binary logistic regression analysis, that is, the dependent variable is dichotomous variable, here is whether the international contractor enters a certain country, the value is "yes" and "no". Independent variables can include many factors in Logistic regression. In this paper, we choose 7 independent variables as the factors influencing the selection of international engineering contractor market. Then, through logistic regression analysis, the weight of independent variables can be obtained, so as to roughly understand which factors influence the selection of Chinese contractors in the international market and how they influence it.

2.2. Factor Analysis and Related Hypothesis

First of all, on the basis of the existing literature chose seven factors (market potential, competitive strength, cultural distance, country credit, company size, geographic distance, international experience) that influence the international engineering market choose these seven factors are analyzed the influence of the international engineering market choice, and put forward these factors impact on Chinese contractors international engineering market choice hypothesis, empirical analysis to make matting for subsequent use of Logistic regression.

2.2.1. Market Potential

Generally speaking, the project contractor is more willing to enter the target country with high market potential, and the country with high market potential is more likely to enable the contractor to obtain a large market share. Countries with high market potential usually bring huge market returns and more business, and ultimately increase the broad prospects for long-term business continuity, providing a solid foundation for international project contracting. Therefore, we propose the following hypothesis:

Hypothesis 1: The greater the market potential of the target country, the more likely the Chinese contractor will choose the engineering market of that country.

2.2.2. Competitive Strength

Bidding for contracts in a competitive market can incur considerable additional costs in a failed bid and reduce the revenue from the contract. At the same time, improved bargaining power of customers will force lower prices and provide better services to compete with the industry, which is likely to hurt the profits of the whole industry. Generally speaking, doing business in competitive countries is less profitable. Therefore, we propose the following hypothesis:

Hypothesis 2: The higher the competition intensity in the target country, the less likely the Chinese contractor will choose the engineering market in that country.

2.2.3. Cultural Distance

Cultural distance refers to the degree of cultural difference with language as the main feature between a country and the target country. It is an invisible "distance" in culture and a kind of difference, which has an important influence on the trade flow of a country. Johanson et al. [7] proposed that the uncertainty of the international market is an obstacle to an enterprise's international expansion. When the cultural distance between the home country and the target market country is large, assessing the target market, gathering intelligence, transplanting management experience and so on become serious problems. Language and cultural differences will also lead to the increase of operating costs, communication and marketing errors are more likely to occur. However, international engineering construction projects are often particularly complex, which aggravates the risk of improper communication and handling of laws, which may lead to conflicts and mistakes, thus greatly reducing the efficiency of enterprises. Therefore, we propose the following hypothesis:

Hypothesis 3: The greater the cultural distance between the home country and the target country, the less likely it is for Chinese contractors to choose the engineering market in that country.

2.2.4. Country Credit

The construction project is different from the general manufacturing industry. The construction project is produced and built in the target market country, and many equipment and materials must be transported to the target country. If the national sovereign credit is low, the target country often appears political instability, social conflicts and workers strike, etc., then the business activities of the enterprise will be greatly affected, which will bring huge losses to the enterprise. Construction projects usually have a longer time horizon, and a longer time horizon is bound to lead to more uncertain environmental conditions, including not only the national political aspects mentioned earlier, but also local material, labor price fluctuations, currency exchange rate fluctuations, and so on. All of these are closely related to the sovereign credit of a country. Therefore, we propose the following hypothesis:

Hypothesis 4: The higher the national credit of the target country, the more likely the Chinese contractor will choose the engineering market of that country.

2.2.5. Company Size

The size of a company simply means the strength of the company. Generally speaking, when an enterprise enters the overseas market, it needs the support of human, financial and financial resources for its market expansion, marketing, talent management, resource management and other activities. At the same time, an enterprise entering a new country needs to bear some additional risks and responsibilities, and it needs to have sufficient capabilities and advantages to bear these responsibilities and risks, while larger companies have more abundant resources to absorb overseas markets. Therefore, we propose the following hypothesis:

Hypothesis 5: The larger the size of Chinese international contractors, the more likely they are to choose overseas engineering markets.

2.2.6. Geographic Distance

International contractors may purchase raw materials and equipment from their home countries in the process of carrying out projects overseas, and transportation and storage costs may be high if the target market country is far away from the home country. For some senior managers, it may be difficult and troublesome to collect project-related information and conduct project personnel management and other control activities in distant target countries, which may also lead to high management costs. Of course, in terms of project communication, managers may also have information delay due to too long distance, resulting in deviation and so on. Therefore, we propose the following hypothesis:

Hypothesis 6: The greater the geographical distance between the home country and the target country, the less likely Chinese contractors are to choose the engineering market of that country.

2.2.7. International Experience

Once a company acquires international experience, its ability to deal with the uncertain risks in the international market will be improved. The more international experience a company acquires, the better it is able to devise ways to reduce its operating costs in a given country, and the more likely it is to venture into more remote and risky target countries. At the same time, experienced contractors have better strategies for project evaluation and bidding. Rich international experience can enable enterprises to improve the ability to cope with risks, make up for mistakes, reduce costs and improve profitability. Therefore, we propose the following hypothesis:

Hypothesis 7: The more international experience Chinese contractors have, the more likely they are to choose overseas engineering markets.

3. Research Methods

3.1. Sample Selection

Every year, ENR ranks international contractors according to their incomes in the domestic market. In 2018, 69 Chinese contractors were selected to ENR. In order to determine the factors influencing the selection of Chinese contractors in the market, the results are more objective. Here, the 69 Chinese contractors are divided into 3 gradients according to their ranking. The top 10 contractors are selected from 4 Chinese contractors. 3 Chinese contractors are selected among the top 30-40; Three Chinese contractors were selected in the rank of 60-69. These 10 Chinese contractors were selected as the research samples.

We also need to select countries as research samples. More than 200 countries in the world, based on this research is under the background of "area", and parts of the data is not available or not available, so here on the basis of the "China area network" data and six continents to participate in the "area" strategy of country the proportion of all participating countries, according to the proportion in the six continents select 20 countries as the research sample.

To sum up, this study investigated the activities of 10 Chinese contractors in 20 countries, with a total of 200 cases (10×20).

3.2. Variable Measure

3.2.1. Dependent Variable

The dependent variable here indicates whether the contractor enters the target country and is represented by the "0-1" variable. In THE ENR2018, there is a section entitled Where the 2018 Top 250 International Contractors Worked, which describes the countries in which International Contractors shortlisted for the ENR in 2018 entered. Through the query, if the Chinese contractor I in the sample enters the target country J, then the dependent variable is 1; If it does not enter, it is 0.

3.2.2. Independent Variable

Market potential. Market potential is usually determined by market demand and, according to literature studies, is usually measured by GDP. GDP data for all countries taken from World Bank (2018)

Competitive Strength. As the number of competitors in an industry increases, the intensity of competition increases and market share and marginal profit margins come under downward pressure. Thus, the intensity of international contracting competition in a target country can be measured by the number of international contractors listed in ENR2018 and active in the country.

Cultural distance. Cultural distance is calculated by means of Hofstede's scale of cultural dimensions in six countries, and the overall variance of these six cultural dimensions is corrected. The formula is as follows:

$$CD_{jk} = \sum_{i=0}^6 \left\{ \frac{(I_{ij} - I_{ik})^2}{V_i} \right\} / 6$$

Where, CD represents the cultural distance between countries, I represents the values of the six cultural dimensions of a country, and V represents the variance of the i cultural dimension.

Country Credit. The index of national credit is mainly composed of the evaluation results of the three major international agencies that evaluate national sovereign credit (S&P, Moody's and Fitch). According to the latest comprehensive score of sovereign credit rating compiled on the website of "TRADING ECONOMICS", the score is from 0 to 100, with 100 representing the

highest credit rating and 0 the lowest. This indicator is applicable to the assessment of risks in international markets.

Company Size. Company size can be measured in a variety of ways, such as corporate assets or number of employees (Chen 2005). The most commonly used measure in the study is total revenue (Chen 2005). In general, there is a correlation between measures of total revenue and employee levels. Therefore, the size of the sample contractor is measured by its annual overseas revenue in the 2018 ENR report.

Table 1 Chinese contractors and related indicators

Chinese Contractor	Company Size	International Experience
China Communications Construction Co. LTD	231	79
China State Construction Engineering Corporation	139.7	14
China Railway Group Corporation LTD	51	62
China National Machinery Industry Corporation	45.1	21
China General Technology (Group) Holding Co. LTD	7.6	9
China Geological Engineering Corporation	5.6	3.4
China Wuyi Stock Co. LTD	4.9	16
Anhui Construction Engineering Group Co. LTD	2	7
Zhejiang Jiaogong Group Co. LTD	1.4	2
Hunan Road and Bridge Construction Group Co., LTD.	0.9	1

Table 2 Countries along the Belt and Road and related indicators

Country	Continent	Market Potential	Competitive Strength	Cultural Distance	Country Credit	Geographic Distance
Morocco	Africa	1181.78	29	2.1479575	72	9937.62
South Africa	Africa	3766.79	29	2.3702441	50	12954.95
Senegal	Africa	179.1	23	1.649448	37	12291.06
Ghana	Africa	518.15	33	3.0968657	26	11813.27
Kenya	Africa	895.91	39	2.0201975	35	9212.54
Botswana	Africa	175.38	13	0.8683709	72	11771.61
South Korea	Asia	16556.08	31	2.0027529	86	956.28
Malaysia	Asia	3472.9	69	1.1714876	66	4346.93
Singapore	Asia	3168.72	51	0.644641	98	4479.02
Lebanon	Asia	556.45	13	1.4719554	23	6971.56
Pakistan	Asia	3069.87	40	1.5787309	26	3883.93
Philippines	Asia	3316.78	47	1.0888067	60	2851.14
Russia	Europe	15764.88	50	2.5840312	53	6464.24
Czech	Europe	2445.4	20	1.6729199	81	7452.6
Lithuania	Europe	524.68	4	3.7535264	71	6557.29
Italy	Europe	20869.11	27	2.5688891	62	8122.8
New Zealand	Oceania	2059.97	15	4.468607	93	10784.31
Chile	South America	2998.87	33	3.7139188	80	19058.44
Venezuela	South America	963.28	24	3.3099144	12	14396.6
Cuba	North America	970.51	9	2.789858	15	12737.63

Geographical distance. The geographical distance here is the actual physical distance, which is measured by the distance between the capitals, namely the distance between Beijing and the capital of the target country. All these data are used in the authoritative data of Baidu library.

International experience. A company's international experience can usually be measured by the number of years it has been active in overseas markets and the number of countries it has been active in. But with the number of active in overseas countries to measure more convincing, the reason is that a company engaged in business activities in multiple countries, can absorb different areas, different culture, different development level of the target countries experience, also can experience more condition and risk at the same time, to promote in the face of a variety of difficulties coping ability. Therefore, based on the 2018 ENR report, international experience is measured in terms of the number of contractors entering the country. So we find out how many of the 10 sample countries went into the world.

3.3. Data Collection

Based on the previous sample selection and variable measurement, this section summarizes the sample data of 10 Chinese contractors and 20 countries in the sample.

The data of 10 Chinese contractors and their related indicators are shown in Table 1.

The data of 20 countries along the "One Belt And One Road" and their relevant indicators are shown in Table 2.

3.4. Model Foundation

3.4.1. Variable Assignment

Where y is whether the enterprise enters, enter "1" and not enter "0"; x_1 is market potential; x_2 is competitive strength; x_3 is cultural distance; x_4 is country credit; x_5 is company size; x_6 is geographic distance; x_7 is international experience; β_0 is the constant term or the tropic intercept; β_1 is the regression coefficient of market potential; β_2 is the regression coefficient of competitive strength; β_3 is the regression coefficient of cultural distance; β_4 is the regression coefficient of country credit; β_5 is the regression coefficient of company size; β_6 is the regression coefficient of geographic distance; β_7 is the regression coefficient of international experience.

3.4.2. Logistics Regression Model

Logistics regression analysis is mainly used to study the probability P of occurrence of certain phenomena, such as stock rise or fall, probability of success or failure of a company, and to discuss what factors are related to the probability P . Obviously, as the probability value, there must be $0 \leq p \leq 1$, so it is difficult to describe the relationship between the probability P and independent variable with a linear model. In addition, if P is close to two extreme values, it is difficult for general methods to better reflect the slight change of P . Therefore, when building a model of the relationship between P and independent variables, we should change our thinking, not directly study P , but study a strictly monotone function $G(p)$ of P , and require $G(p)$ to be sensitive to small changes of P when p is close to the values at both ends. So the Logit transformation comes out:

$$\text{Logit}(p) = \ln \frac{p}{1-p}$$

Where p ranges from 0 to 1, $\text{Logit}(p)$ ranges from $-\infty$ to $+\infty$, This range of variation brings great convenience to model data processing and solves the above problems. In addition, from the deformation of the function, the following equivalent formula can be obtained:

$$\text{Logit}(p) = \ln \frac{p}{1-p} = \beta^T X \Rightarrow p = \frac{e^{\beta^T X}}{1 + e^{\beta^T X}}$$

The basic requirement of model (2) is that the dependent variable Y is a binary variable with only two values of 0 or 1, and the probability $P(y = 1 | X)$ of the dependent variable of 1 is the object to be studied by the model. And $X = (1, x_1, x_2, \dots, x_k)^T$, where x_i is the i th factor that affects y , it can be a qualitative variable or it can be a quantitative variable, $\beta = (\beta_0, \beta_1, \dots, \beta_k)^T$. Therefore, model (2) can be expressed as:

$$\ln \frac{p}{1-p} = \beta_0 + \beta_1 x_1 + \dots + \beta_k x_k \Rightarrow p = \frac{e^{\beta_0 + \beta_1 x_1 + \dots + \beta_k x_k}}{1 + e^{\beta_0 + \beta_1 x_1 + \dots + \beta_k x_k}}$$

Equation (3) above is the logistics regression model used in this paper, where $\beta_0, \beta_1, \dots, \beta_k$ is the unknown parameter to be estimated. The establishment of the equation is to solve $\beta_0, \beta_1, \dots, \beta_k$, Among them:

β_0 denotes the logarithm of the probability ratio of the occurrence and non-occurrence of the effect indicator in the absence of any influencing factors. In this paper, it is the logarithm of the probability ratio of the Chinese contractor's entry into the target country and non-entry.

β_i refers to the logarithmic change value of the probability ratio of occurrence and non-occurrence of the effect indicator when a factor is changed by one unit. In this paper, it is the logarithmic change value of the probability ratio of the Chinese contractor entering the target country and not entering the target country when the influencing factor changes by one unit.

OR refers to the probability of the occurrence and non-occurrence of the event, which is called the advantage ratio and formally expressed as:

$$\frac{p}{1-p} = e^{\beta_0 + \beta_1 x_1 + \dots + \beta_k x_k}$$

In the following part, SPSS software will be used to solve the model and conduct empirical analysis, so as to obtain whether each factor has an impact on the selection of Chinese contractors in the international market and confirm whether the hypothesis is valid.

4. Data Analysis and Results

4.1. SPSS Processing Results Analysis

4.1.1. Comprehensive Test Table for Coefficients of The Binary Logistic Regression Model

Table 3 Comprehensive test sheet

	Chi-square value	df	Significance value
Step 1 Step	62.227	8	.000
Block	62.227	8	.000
Model	62.227	8	.000

Analysis: From the comprehensive test table of model coefficients, it can be seen that all the significant P values are less than 0.05, which means that in the fitted model, the OR value of at least one variable is statistically significant. That is, the overall model is meaningful. Therefore, the model statistics are significant.

4.1.2. Binary Logistic Regression Model Classification Prediction Table

Table 4 Classification Forecasting

Observed value		Predictive value		
		Whether Chinese contractors enter or not		Percentage correction
		No	Yes	
Whether Chinese contractors enter or not	No	146	9	94.2
	Yes	25	20	44.4
Percent of total				83.0

a. The segmentation value is.500

Analysis: It can be seen from the model classification prediction table that the accuracy rate of using sample data to predict the market of Chinese contractors is 83.0%, which is greater than 60.0%. It can indicate that the model is established accurately and the model fits well.

4.1.3. Binary Logistic Regression Model Hosmer-Lemeshaw Test Table

Table 5 Hosmer-Lemeshaw test

Step 1	Chi-square value	df	Significance value
1	5.386	8	.716

Analysis: It can be seen from the Hosmer-Lemeshaw test table that the significance P=0.716. When the P value is not less than the test level (ie P>0.05), it is considered that the information in the current data has been fully extracted and the model is The degree of integration is relatively high.

4.1.4. Table of Fitting Degree of Binary Logistic Regression Model Parameters

Table 6 Parameter fit

		B	S.E.	Wald	df	Significance	Exp(B)
Step 1	Market Potential	.000	.000	.373	1	.032	1.000
	Competitive Strength	.046	.016	7.937	1	.005	1.047
	Cultural Distance	-.239	.351	.462	1	.478	.788
	Country Credit	-.026	.010	7.401	1	.007	.974
	Company Size	.000	.004	.000	1	.986	1.000
	Geographic Distance	.000	.000	.027	1	.870	1.000
	International Experience	.053	.013	17.354	1	.000	1.055
	Constant	-2.318	1.103	4.416	1	.036	.098

Analysis: It can be seen from the parameter fit table that according to the regression coefficient and significance of each factor, we can see that this model provides strong support for the verification of hypotheses 1, 2, 4, and 7, because these hypotheses correspond to the factors The significance is less than 0.05. On the contrary, this model does not provide strong support for Hypotheses 3, 5, and 6. In order to better illustrate the influence of various factors reflected

in the model results on the selection of Chinese contractors, we will propose hypothesis tests below.

4.2. Hypothetical Test

Table 7 Hypothetical Test

	Corresponding Factor	Regression coefficients	Significance	Support hypothesis
Hypothesis 1	Market Potential	.000	.373	Yes
Hypothesis 2	Competitive Strength	.046	.005	No
Hypothesis 3	Cultural Distance	-.239	.478	No
Hypothesis 4	Country Credit	-.026	.007	No
Hypothesis 5	Company Size	.000	.986	No
Hypothesis 6	Geographic Distance	.000	.870	No
Hypothesis 7	International Experience	.053	.036	Yes

Hypothesis 1 states that the greater the market potential of the target country, the greater the possibility of contractors entering the country. The regression coefficient of market potential is positive, and its significance is 0.32 less than 0.05, which shows that the huge market potential of the target country is indeed attractive to Chinese contractors. Therefore, Hypothesis 1 is supported.

Hypothesis 2 states that the higher the intensity of competition in the target country, the less likely the contractor will enter that country. The regression coefficient of the competition intensity is 0.046 greater than 0, and its significance is 0.005 less than 0.05, which shows that the higher the competition intensity, the Chinese contractors are more willing to enter the country, which obviously does not conform to the assumption. Therefore, Hypothesis 2 is not supported.

Hypothesis 3 points out that the greater the cultural distance between the home country and the target market country, the lower the possibility of contractors entering the target country. The retrospective coefficient of cultural distance is -0.239 less than 0, but its significance is 0.478 greater than 0.05. Cultural distance cannot be used to explain its influence on the selection of Chinese contractors. Therefore, Hypothesis 3 is not supported.

Hypothesis 4 states that the higher the national credit of the target market country, the higher the possibility of contractors entering the target country. Although the significance of national credit is 0.007 less than 0.05, it shows that national credit affects the market choice of Chinese contractors. However, the regression coefficient of national credit is -0.26, which indicates that Chinese contractors chose to enter countries with low national credit, rather than avoiding it. It is contrary to Hypothesis 4, so Hypothesis 4 is not supported.

Hypothesis 5 points out that the larger the scale of international contractors, the higher the possibility of contractors entering overseas markets. The regression coefficient of firm size in the model is greater than 0, but its significance is 0.986 far greater than 0.05. Therefore, firm size cannot be used to explain its influence on the selection of Chinese contractors in the market. Therefore, Hypothesis 5 is not supported.

Hypothesis 6 states that the greater the geographic distance between the target country and the home country, the lower the possibility of contractors entering the target country. However,

the significance of geographic distance in the model is 0.870 far greater than 0.05, indicating that geographic distance cannot be used to explain its influence on the selection of Chinese contractors. Therefore, Hypothesis 6 is not supported.

Hypothesis 7 states that contractors with more international experience are more likely to enter the international market. The regression coefficient of international experience in the model is 0.053 greater than 0, and its significance is less than 0.05, indicating that experienced contractors are more willing to enter the international market. So Hypothesis 7 is confirmed.

5. Conclusion

5.1. Analysis on The International Market Layout of Chinese Contractors

First, the results of the research are consistent with the company's view that it prefers countries with greater market potential. This can be clearly seen from the ENR report in 2018. The report shows that among the 126 countries along the "Belt and Road", the number of Chinese contractors (e.g., 9 from Russia, 8 from South Korea, 6 from Italy, etc.) entered by the top GDP ranking countries is significantly more than that of the top GDP ranking countries. The number of foreign countries that have entered (e.g. 3 in Senegal, 4 in Botswana, 2 in Cuba, etc.). Therefore, the current layout of Chinese contractors in the international market still attaches great importance to the market potential of the target country and the business growth it brings, and continues to expand business in countries with high market potential.

Second, the research results are consistent with the view that Chinese contractors with rich international experience are more willing to enter the international market. This can also be demonstrated through the ENR report in the past five years. From the ENR report in 2013 to the ENR report in 2017, the number of Chinese contractors shortlisted for ENR for 5 consecutive years (for example: China Communications Construction Co., Ltd., China State Construction Engineering Corporation, etc.) entered the "Belt and Road" countries in 2018. The number of Chinese contractors who have not entered the ENR for five consecutive years or newly entered the ENR is obviously higher than that. Therefore, it can also be seen that the current international market layout of Chinese contractors is also constrained by the contractors' own international experience. Experienced contractors can enable companies to improve their ability to deal with risks, make up for mistakes, reduce costs, and increase profitability, so that experienced Chinese contractors are more willing to explore overseas markets; and less experienced contractors tend to be more sensible. Look at the international market, continuously improve international experience and strengthen strength.

Regarding the research on geographic distance, most early studies show that geographic distance hinders the entry of contractors. However, this study is just the opposite, and the significance of this factor in the experiment is very low. This may be because the current communication, transportation, and logistics technologies have been greatly improved and upgraded, eliminating the influence of traditional distance barriers. Therefore, this article believes that in the current development of transportation and communication technology, geographic distance is not an important factor considered in the current Chinese contractor market layout.

Similarly, although national credit affects the choice of Chinese contractors in the international market, the findings of this study are contrary to the assumption that Chinese contractors are willing to enter countries with low national credit. I think there are two reasons to explain this phenomenon: First, Chinese contractors have not been in the international engineering market for a long time, and as latecomers, Chinese contractors may only have some less ideal market choices. Perhaps compared to more powerful international contractors, Chinese contractors with less developed technology can only win contracts in underdeveloped markets, because in these markets, the priority is price rather than quantity. Second, under the overall environment

of the "One Belt, One Road" strategy, China has increased its opening to the outside world and established profound friendships with more backward countries in the region. Among the 126 countries participating in the "One Belt One Road" strategy, African countries account for more than half. The creditworthiness of these backward countries and regions is not high, but the Chinese government and people are willing to help and support as much as possible. As the world's largest developing country, China has the obligation to show its responsibility as a great power. Therefore, the profound friendship established by the "Belt and Road" strategy has made the political and economic risks of low-credit countries to the Chinese government relatively small. Therefore, in the context of the "Belt and Road" initiative, the layout of Chinese contractors in the international market will take into account the contractors' own technology, price, politics and other factors.

Research on the intensity of competition refutes the view that Chinese contractors usually avoid the highly competitive market. Although the traditional view is that a highly competitive market is related to lower market share, higher costs, lower yields and profit margins, these factors may also have advantages. Competitive markets may be competitive because they are attractive because the opportunities they bring outweigh the costs. Another characteristic of large global contractors is that they use advanced technologies that are not normally available to local contractors. Countries that have invested heavily in infrastructure construction and attracted a large number of large contractors are often testing grounds for next-generation technologies and advanced management processes. Therefore, a highly competitive market may be a key environment for Chinese contractors to hone their capabilities and competitive advantages.

Finally, for the study of cultural distance, the general view is that cultural distance hinders the market choice of contractors. However, the research in this article shows that cultural distance does not show its influence on the choice of Chinese contractor market. This article believes that this situation is an inevitable result of the "Belt and Road" strategy. The original intention of the "One Belt, One Road" strategy is to promote economic globalization and shorten the distance between countries. Among the "five development" goals established by the "Belt and Road" strategy, one of the most important is "people-to-people bonds." Over the years since the implementation of the "Belt and Road" strategy, our country has carried out countless cultural weeks and other exchange activities in order to narrow the distance between the people of the country and shorten the gap between cultures, and these efforts have finally shown results. Obviously, the "One Belt One Road" strategy has reduced the cultural distance between countries along the route, so that cultural distance is no longer an important factor hindering the international market layout of Chinese contractors.

In summary, in the context of the "Belt and Road Initiative", the layout of the international market of Chinese contractors pays more attention to targeting countries with greater market potential and fierce competition, because these countries can often bring more development opportunities to Chinese contractors. At the same time, Chinese contractors also set their target markets in the backward countries along the "Belt and Road", aiming to do their best to help the friendly nations achieve development. Experienced Chinese contractors are more inclined to focus on overseas markets, because their rich experience allows them to avoid risks. Finally, due to the development of transportation and communication technology, and the effects of the "Belt and Road" construction, geographical distance and cultural distance are no longer the key factors hindering the international market layout of Chinese contractors.

5.2. Forecast of The International Market Layout of Chinese Contractors

First of all, according to the previous analysis of the influencing factor of national credit, it can be seen that Chinese contractors have not distributed the market to more countries with higher credit, that is, more developed countries. The main reason is that the operating mechanism formed by the market itself in developed regions restricts foreign contractors, such as higher

technical requirements and less advanced corporate concepts than developed countries. These conditions have led to a certain gap between Chinese contractors and the world's leading international contractors, and this gap cannot be completely eliminated in a short period of time. Under the same conditions, they will feel powerless to compete with them. Therefore, it will be difficult to expand into the markets of developed countries in the future. At the same time, under the "Belt and Road" strategy, most of the foreign engineering contracting documents signed by my country and countries along the route are infrastructure construction projects from countries with lower credit ratings, and African countries account for the majority. In addition, African countries have played a pioneering role in the history of my country's overseas project contracting. In the future, my country's large-scale international project layout in relatively backward countries and regions will also become the pillar of my country's international project contracting industry. Therefore, it is expected that the international market layout of Chinese contractors in the next few years or even more than ten years will still be placed in backward areas with lower national credit ratings.

In addition, this study compared the layout of Chinese contractors' branches in 126 countries along the "Belt and Road" in the 2008 ENR report and the 2018 ENR report. The layout growth of continents is shown in the Table 8:

Table 8 Overseas Layout of Chinese Contractors

	Number of Contractors in China in 2008	Number of Contractors in China in 2018	Growth
America	26	74	184.6%
Asia	164	285	73.7%
Africa	148	215	45.3%
European	34	46	35.3%

It can be seen from the above table that the layout of Chinese contractors in the Americas has increased the most in the past 10 years, reaching 184.6%, followed by Asia with an increase of 73.7%, and the smallest increase in Europe with 35.3%. However, it can be seen that the base of the Americas is small, and that of Asia is the largest. The "Belt and Road" strategy was proposed in 2013, and it has been 6 years. Driven by the "One Belt One Road" strategy, it has also promoted the rapid development of Chinese contractors' overseas deployment, especially in the Americas. Therefore, it is expected that in the next period of time, Chinese contractors will still seize the American market, continue to expand their presence in the Americas, and seek new engineering contracting markets.

Second, in the context of economic globalization, more and more countries will target the international engineering contracting market, and more contractors will pour into the international market to seek opportunities. This will definitely lead to more intense competition in the international engineering contracting market. Therefore, it is expected that in the future, Chinese contractors will continue to seek more development opportunities in markets with fierce competition and greater market potential.

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