

# Research on OFDI Model of Chinese Enterprises under "the Belt and Road"

## — Based on political, cultural and institutional distance

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**Abstract.** Based on the political, cultural and institutional distance between the host country and China, this paper studies OFDI mode of Chinese enterprises. Chinese A-share enterprises's 129 OFDI behaviors from 2005 to 2018 were used for a multivariate Logit regression analysis which involved 41 countries along "the Belt and Road". The results show that the greater the political distance and normative distance are, the more enterprises choose cross-border M&A and compared with joint ventures, enterprises tend to be sole proprietorship; The greater the cultural distance and regulatory distance are, the more enterprises tend to be greenfield joint ventures. Finally, the paper put forward some suggestions for enterprises.

### 1. Introduction

In September and October 2013, President Xi Jinping made a major initiative to build the "Silk Road Economic Belt" and "21st Century Maritime Silk Road" jointly during the visit to Central Asia and Southeast Asian countries, referred to as "the Belt and Road". In recent years, Chinese companies have invested in the countries along "the Belt and Road" heavily and fast. According to the data of *China's "the Belt and Road" Trade and Investment Development Research Report*, China's OFDI in the countries along "the Belt and Road" totaled US\$64.64 billion from 2014 to 2017 with an average annual growth rate of 6.9%. Meanwhile, the investment model as an important topic of OFDI acquired more attention. Therefore, this paper studies how Chinese enterprises should choose appropriate investment models for OFDI based on political, cultural and institutional distance.

### 2. Literature review

The construction modes of OFDI include greenfield investment and cross-border M&A. The capital compositions include joint ventures and sole proprietorships. This paper combines them to four investment models including greenfield sole proprietorship, greenfield joint venture, cross-border M&A sole proprietorship and cross-border M&A joint venture[1].

Investment model will be affected by many factors. About political distance, countries with long political distance have more conflicts and it is more difficult to achieve cooperation. So compared with greenfield investment, cross-border M&A will reduce the political risks. If the quality of bilateral political relations is poor, the host government is likely to intervene with foreign acquirers [2], and may make policies which are not conducive to foreign enterprises. Based on this, the paper proposes the following assumptions:

H1a: The greater the political distance are, the more enterprises choose cross-border M&A.

H1b: The greater the political distance are, the more enterprises tend to be sole proprietorships.

About cultural distance, Du Xiaojun and Liu He [3] thought cross-border M&A can be influenced by cultural differences which lead to the failure of OFDI. Chen Huaichao and Fan Jianhong [4] found that compared with greenfield investment, the greater the cognitive distance are,

the more Chinese enterprises prefer cross-border M&A. If the cultural distance is great, the managers in joint ventures can help reduce the external costs[5]. Based on this, the paper proposes the following assumptions:

H2a: The greater the cultural distance are, the more enterprises prefer greenfield investment.

H2b: The greater the cultural distance are, the more enterprises tend to be joint ventures.

The paper refers to three-dimensional institutional theory of Kostova [6] to divide institutional distance into regulatory distance, normative distance and cognitive distance. According to most scholars, cognitive distance is replaced by cultural distance. Therefore, this paper studied the other two dimensions of institutional distance. Compared with cross-border M&A, if the regulatory distance is great, the enterprise prefer greenfield investment to reduce the operational risks [7]; The greater the regulatory distance is, the more companies prefer to be a joint venture [8]. The greater the normative distance is, Chinese enterprises prefer to choose cross-border M&A [4]; Due to the inconsistency with the local enterprise system, the enterprise prefer to be sole proprietorship to reduce the operating cost. Based on this, the paper proposes the following assumptions:

H3a: The greater the regulatory distance are, the more companies prefer greenfield investment.

H3b: The greater the regulatory distance are, the more companies tend to be joint ventures.

H4a: The greater the normative distance are, the more companies choose cross-border M&A.

H4b: The greater the normative distance are, the more companies tend to be sole proprietorships.

### 3. Model and data description

In order to verify the above hypothesis, this paper establishes a multivariate Logit regression model to analyze the influence of political, cultural and institutional distance on the OFDI model of Chinese enterprises.

#### 3.1 Basic model

The basic model of the research is :

$$p(y_i = j) = e^{x_i \beta_j} / \sum_{j=1}^4 e^{x_i \beta_j} \quad (1)$$

$p(y_i = j)$  indicates the probability that the company chooses the investment model  $j$ ,  $y_i$  indicates the investment model selected by the company  $i$ ,  $x_i$  indicates factors that influence investment model,  $\beta_j$  is the parameter to be estimated.

Assume that the probability of selecting greenfield sole proprietorship, greenfield joint venture, cross-border M&A sole proprietorship and cross-border M&A joint venture is  $P_1$ 、 $P_2$ 、 $P_3$  and  $P_4$ . The paper choose  $P_4$  as Benchmark dependent variable, so the model is :

$$\ln(P_i/P_4) = \alpha_i + \beta_{i1}x_1 + \beta_{i2}x_2 + \cdots + \beta_{im}x_m \quad (2)$$

#### 3.2 Data source and variable description

Firstly, this paper selected all the A-share enterprises from CSMAR database in 2005-2018, a total of 2252 companies. Secondly, the author matched them to Chinese Ministry of Commerce's *Investment List of Overseas Investment Enterprises* to screen out 607 foreign direct investment behaviors. Thirdly, the OFDI regions are limited to the countries along “the Belt and Road” and finally retained 129 OFDI activities involving 41 countries.

##### 3.2.1 Dependent variable

If the investment mode of the enterprise is greenfield sole proprietorship, the dependent variable takes the value of 1; if the investment mode is greenfield joint venture, the dependent variable takes the value 2; if the investment model is cross-border M&A sole proprietorship, the dependent variable takes the value 3; if the investment model is cross-border M&A joint venture, the dependent variable takes the value of 4.

### 3.2.2 Independent variables

Political distance. The political affinity is defined as the degree of convergence of the two countries in international affairs. This variable was set by the vote of the home country and host country at the UN General Assembly in  $t$  years [9], with the formula:

$$PA = 1 - 2 * d_t / d_{max} \quad (3)$$

1 = yes; 2 = against.  $d_t$  is the sum of the metric distances between the votes of the United Nations members in a given year, and  $d_{max}$  is the largest possible metric distance for these votes.

Cultural distance. This paper refers to Hofstede's six-dimensional cultural theory, which mainly includes individualism and cooperative dimension, right distance dimension, masculinity dimension and women's temperament dimension, uncertainty avoidance dimension, long-term and short-term orientation dimension, and indulgence constraint dimension. The formula that calculate cultural distance refers to the method of Kogut and Singh [10] as follows:

$$CD_h = \sum_{h=1}^6 \left\{ (H_{hc} - H_{hf})^2 / V_h \right\} / 6 \quad (4)$$

$CD_h$  represents the regulatory distance,  $h$  represents six different dimensions,  $c$  represents China,  $f$  represents the host country,  $H_{hf}$  represents the value of dimension  $h$  of countries  $f$ , and  $V_h$  represents the variance of the dimension  $h$ . The data comes from the Hofstede's official website.

Institutional distance. This paper divides the institutional distance into regulatory distance and normative distance. In terms of regulatory distance, this paper selects six indicators consisting of judicial independence, fairness of government officials in decision-making, transparency of government decision-making, reliability of police service, effectiveness of anti-monopoly policy, and efficiency of legal framework. In terms of normative distance, this paper selects six indicators covering the effectiveness of the company's board of directors, the degree of employee training, the effectiveness of antitrust policies, the degree of customer orientation, compensation and productivity, and dependence on professional management [11]. The formula of institutional distance are the same as the formula of cultural distance.

In addition, this paper chose several control variables in order to better fit the model such as the host country market size, economic growth rate, geographic distance, industry type, enterprise ownership and corporate capital intensity as shown in Table 1.

Table 1. Description of variables

Variables	Description
Political Distance(PD)	The data comes from the UN voting data compiled by foreign scholar Eric Gartzke.
Cultural Distance(CD)	The data comes from the Hofstede's official website.
Regulatory Distance(RD)	The data comes from the <i>Global Competitiveness Report</i> .
Normative Distance(ND)	The data comes from the <i>Global Competitiveness Report</i> .
Market Size(MS)	Host country's GDP; The data comes from the World Bank.
Economic Growth Rate(EG)	Host country's GDP growth rate; The data comes from the World Bank.
Geographic Distance(GD)	The spherical distance between the two capitals. The Data comes from the French CEPII Geography and Distance Database.
Industry Type(IT)	1: First industry; 2: Second industry; 3: Third industry. The data comes from the <i>Three Industry Classification Regulations</i> .
Enterprise Ownership(EO)	1: State-owned enterprises; 0: Non-state-owned enterprises. The data comes from the CSMAR database.
Corporate Capital Intensity(CI)	Per capita capital = Fixed assets investment / number of employees. The data comes from the CSMAR database.

Data source: Arranged by author.

## 4. The selection order of investment mode

The parameter  $\beta_j$  is estimated according to the multivariate Logit model and the regression results

are shown in Table 2.

Table 2 Regression results

	Greenfield Sole Proprietorship VS cross-border M&A Joint Venture	Greenfield Joint Venture VS cross-border M&A Joint Venture	cross-border M&A Sole Proprietorship VS cross-border M&A Joint Venture
PD	6.294*** (0.008)	6.652** (0.018)	-0.806 (0.823)
RD	1.807*** (0.004)	2.075*** (0.004)	1.385 (0.128)
ND	-1.622*** (0.007)	-2.013*** (0.005)	-0.364 (0.742)
CD	0.951** (0.045)	1.187** (0.016)	0.564 (0.409)
MS	1.095** (0.040)	1.486*** (0.010)	1.362* (0.060)
EG	0.151 (0.621)	0.303 (0.352)	0.753 (0.117)
GD	-2.893 (0.302)	-1.173 (0.716)	-2.384 (0.518)
IT	-0.857 (0.597)	-0.682 (0.712)	2.762
CI	-0.054 (0.853)	0.200 (0.573)	-0.182 (0.721)
EO	0.007 (0.993)	0.685 (0.464)	16.753 (0.996)

Data source: compiled from SPSS output results.

Note: “()” is the P value; “\*” means  $P < 0.10$ , “\*\*” means  $P < 0.05$ , “\*\*\*” means  $P < 0.01$ ; “VS” means “comparison”.

As can be seen from Table 3, the political distance has a significant positive impact on the “Greenfield Sole Proprietorship VS cross-border M&A Joint Venture”, “Greenfield Joint Venture VS cross-border M&A Joint Venture” (6.29, 6.65). That means when the political distance narrows, the probability of greenfield sole proprietorship and greenfield joint ventures are 6.29% and 6.65% higher than the probability of selecting joint venture. The analysis about other independent variables is the same as above. By organizing regression results, the paper get the order of investment modes when political, institutional and cultural distance increase which is shown in Table 3.

Table 3. The order of investment modes

Factors	Order			
	1	2	3	4
Political Distance	Cross-border M&A sole proprietorship and cross-border M&A joint venture are indistinguishable.		Greenfield Sole Proprietorship	Greenfield Joint Venture
Regulatory Distance	Greenfield Joint Venture	Greenfield Sole Proprietorship	cross-border M&A sole proprietorship and cross-border M&A joint venture are indistinguishable.	
Normative Distance	Cross-border M&A sole proprietorship and cross-border M&A joint venture are indistinguishable.		Greenfield Sole Proprietorship	Greenfield Joint Venture
Cultural Distance	Greenfield Joint Venture	Greenfield Sole Proprietorship	Cross-border M&A sole proprietorship and cross-border M&A joint venture are indistinguishable.	

Data source: arranged by author.

Besides, the author conducted multicollinearity test and likelihood ratio test and found the model passed the tests obviously. The test results don't arise here because of the limit of the length.

## 5. Conclusion and suggestion

By analyzing the results, the research reached two conclusions. Firstly, the greater the political distance and normative distance between the host country and the home country are, the more enterprises tend to choose cross-border M&A; in the choice of capital composition mode, enterprises prefer to sole proprietorship rather than joint ventures. Secondly, the greater the cultural distance and regulatory distance are, the more enterprises tend to choose greenfield and joint venture and that is to say greenfield is superior to cross-border M&A and joint venture is superior to sole proprietorship. Based on the conclusions, the paper propose the following suggestions. Firstly, enterprises should focus on the political distance when choosing an investment model. When entering a host country such as India with a large political distance from China, enterprises should choose cross-border M&A instead of greenfield joint venture. Secondly, if the institutional distance from the host country is great, the enterprise should be clear whether the legal environment or corporate behavior norms lead to the differences. If it is the former, company should select greenfield joint venture. If it is the latter, companies should choose cross-border M&A to avoid the

greenfield joint venture.

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