Determinants on the Development of Internationalization in Chinese Enterprises: Evidence from Firm-level Survey data

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Abstract: Different from developed countries and emerging market economies, internationalization of Chinese enterprises may have its own features. After summarizing the issues like scale distribution, industrial and regional selection of Chinese Outward Direct Investment (ODI), the paper explains the competitive strategies and their determinants of Chinese enterprises during the process of internationalization and development. Based on the analysis, this paper chooses firm scale, internationalized experiences, domestic incentives, and host countries' incentives as explanatory variables for ODI modes and performances of Chinese enterprises. The results show that internationalized experiences, encouraging policies by Chinese government and the market potentials of host countries are main determinants of ODI modes. It confirms the fact that the development of internationalization of Chinese enterprises is confined with government regulation. Meanwhile, on the performance of internationalization, results show that the internationalized experiences have the biggest impact, which confirms that the accumulation of experience and knowledge will contributes positively on the internationalizing process of Chinese enterprises.
Keywords: Internationalization; Determinants, Modes of Investment; Performance of International Operation

I. Theoretical Review on ODI

The internationalizing activities of enterprises from developing countries are becoming one of the major forces of global capital flow. Among them, Chinese enterprises become a core component. Although firm's internationalization of developing countries becomes more and more important in the real world, the theoretical research of internationalization of developing countries is still at a very elementary stage. It can be partly explained by the unique feather of each developing country during the internalization process. Reliable micro-data is also required for building internationalization theory for developing countries.

The recent research on firm internationalization turns its attention on the determinants on development of internationalization of micro firms. In terms of means of multinational investment decision, literature survey mainly includes the following aspects: 1) Firm Advantages (Firm's ownership advantages). Firm advantage is the key determinants of outward direct investment. Hymer and Kindleherger's outward direct investment is seeking and stating such complementary advantage. When a firm enters into foreign market, it should have firm advantages, which can be transferred and can complement the market disadvantage in special distance compared with firms of host countries. Cave (1971) claims that these complementary

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advantages can be obtained by research and development (R&D) in order in achieving heterogeneous production advantage. Production heterogeneity can be shown in physical feature, brand, advertisement, and after service. These characteristics are more attractive to consumers so that it can digest the high cost by outward investment in foreign market (Chamberlin, 1993). When the production heterogeneous advantage exists, firm will choose sole proprietorship to control and protect these competitive advantages which can be considered as "natural monopoly" (Buckley and Casson, 1979). Empirical analysis shows that the ratio of R&D in sales has a significant and positive relationship with the mode of sole proprietorship (Ding, 1997). This indicates that risk of losing advantage will let the firm more willing to choose sole proprietorship (Cui, 2001).

2) Firm Scale. Firm scale is a firm's indicator of owning proper resources, and the increase of proper resources provides foundation of multinational investment. In spite of willing to do multinational production and invest more resources in foreign market of small and medium enterprises, they are inclined to enter into foreign market as joint ventures and cooperative enterprises (Cui, 2001).

3) Internationalization Experience. Internationalization experience is correlated with the extent of multinational operation of the firms, and firms will accumulate such experiences when they operate in other countries. Buckley and Casson (1985) consider that experience will alleviate the uncertainty and cost of outward investment so that it will increase the possibility of investing more resources. The more international operating experiences of a firm, the larger scale it will operate in foreign countries (Anderson and Gotignon, 1986).

4) Firm Strategy. Strategy is one of the factors affecting means of firm's outward direct investment. To choose one mean of investment is not because this is the best way of adapting foreign product market, but because this is the best way of long-term strategy for firms. The product is the first step to penetrate the foreign market. The leverage effect of one product in achieving firm's global market than other products will also have impacts on the investment mode (Kim and Hwang, 1992).

About the determinants of firm's outward investment performance, the academy doesn't extend it thoroughly and extensively because of the confinement of availability of micro-data. Most researches do qualitative analysis. However, Xiao and Chen (2008) is the first to explore the influencing factors of internationalization of Chinese private enterprises by utilizing surveys of 40 firms. Although the study uses samples mainly from Zhejiang and Jiangsu, the data has general implications for the representativeness of the sample. As the current research, the factors behind development of internationalization include in the following aspects: 1) The judgment of entrepreneurs of Chinese private firms about the extent of difference of market environment at home and abroad can not be the factor of firm's internalization performance; 2) Age can not be the factor of firm's internalization performance, entrepreneurs can be active player no matter of their age; 3) Education will have a negative impacts on firm's internalization performance. Because the surveyed entrepreneurs grow in a special circumstance, the formal education is not that important. With the development of Chinese educational system and

improvement of market institution, to receive formal education, especially college education will have positive impacts on firm's internalization performance; 4) Experience has a biggest effect during the internalization process of firms, the more internationalized experience, the better of internationalization performance will be. 5) Scale is not a necessary condition during the initiative state of internationalization, and it is neither an important factors of firm's internalization performance. This confirms the viewpoints of small scale technology theory; 6) Establishment time will have a positive impact on firm's internalization performance, that is, the early firm establishes, the better firm's internalization performance it will achieve. This confirms the traditional theory of internalization stage, which claim that the firm will accumulate more resources through time to gain competitiveness; 7) The firm's competition strategy will have a big impact on firm's internalization performance. If the firm takes high technology strategy, it will have better internalization performance; 8) Firm's internalization time can not be the factor of firm's internalization performance. This confirms the international new adventure firm theory.

Although we can get general characteristics from above data and classical case analysis, we can't explore the detailed performance during the firm's international process based on such information. We cooperate with China Council for the Promotion of International Trade (CCPIT) to analyze the "current conditions of outbound investment by Chinese enterprises". In April, 2010, CCPIT released "Survey on Current Conditions and Intention of Outbound Investment by Chinese Enterprises 2010", it uses the database based on the national survey from Dec. 2009 to Mar. 2010. The survey was carried out by CCPIT in collaboration with the European Commission's Directorate-General for Trade and UNCTAD, who jointly designed the questionnaire and contributed to the final report[2].

II. Internationalization Feature of Chinese Enterprises

Altogether 3000 questionnaires were distributed in the survey and 1378 valid questionnaires[3] were received, a response rate of 46%. Of the respondent enterprises, the number of firms with overseas activity is 1020, account for 74.0% of the total samples. There are about 320 firms having made overseas investments, account for 23.2% of the total samples.

(1) Firm Scale is a Must for ODI of Chinese Enterprises

On further observation of firms with overseas activity, we find that the number of firms with valid sales record is only 843[4], account for 82.6% of firms with overseas activity. In terms of scale distribution of the firms[5], the scale of overseas activities of Chinese enterprises concentrates on annual sales between 1 million to 1 billion RMB, account for 82.2% of the

[2] The copyright of the data and all written reports of this survey are jointly owned by CCPIT, the European Commission and UNCTAD. The use thereof by any institutions or individuals shall be authorized by CCPIT, the European Commission and UNCTAD.

[3] The report from CCPIT shows that they have 1377 valid questionnaires, which is a slight different as our project because of the different rules to count valid samples.

[4] In selection of valid samples, we omit firms with zero and negative sales. In the analysis, we all adopts this principle to screen the valid samples.

[5] We take sales as the indicator.

respondent enterprises. The number of firms whose sales are between 10 million to 0.1 billion RMB is 342, account for 40.7% of valid samples. In terms of business revenue, of the respondent enterprises, 709 firms have achieved annual revenue exceeding 500 million RMB. Therefore, according to the general statistical caliber, the ratio of enterprises above the designated size reaches 84.1%. From the above statistics, the threshold of Chinese internationalization is relatively high, and it is hard for international development of enterprises below the designated size. In provinces like Zhejiang and Jiangsu, most private enterprises' sales are below 5 million RMB so that the scale requirement will hinder the internationalization of private enterprises in China. Meanwhile, we find that 203 enterprises have outward investment activities, account for 20% of firms with overseas activities. In terms of enterprises with outward investment, the ratio of firms with sales higher than 0.1 billion RMB has reaches 71.9%, much more than the ratio of firms with overseas activities. We can infer that scale is a very important threshold for firm having outward investment. The detailed distribution of business revenue of firms is as follows:

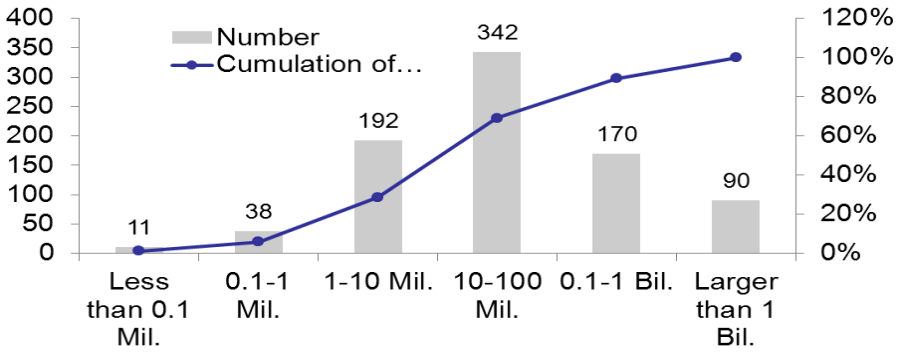

Figure 1: Distribution of Scale of Sales about Firms with Overseas Activities

In terms of employee numbers of the respondent enterprises, 108 enterprises have less than 50 employees, account for 11.2% of them. However, the standard of having 50 employees is a hard issue for many small and medium firms. Therefore, scale of number of employees is also a very important threshold for firm having outward investment. Meanwhile, we find that the number of firms with 10,000 employs is only 20, account for 2.0% of valid samples. This means that for firms with overseas activities, the number of big multinational firms is relatively small.

(2) Non-State-Owned Enterprises is an Active Player in Overseas Activities

The "national league" always plays an important role in overseas activities for a long time. With the deepening of the opening up of China, and relaxing the government regulation of firm's oversea activities[6], private-owned enterprises become the new "main force" in overseas activities. For this survey, private enterprises take the biggest share, account for 67.7%. Comparatively, the share of state-owned enterprises is 11.9% and the shares of other forms of enterprises (listed corporations, joint ventures, and foreign-owned enterprises) are all below

[6] In 2004, China's Ministry of Commerce released "the registration regulation of foreign traders", and unlashed foreign trade operating right; In 2009, China's Ministry of Commerce released "the management method of investment abroad", and let the approval right of outward investment of enterprises under the authority of local government.

10%. We find that the private firms only have advantages in numbers. The average scale of private firms is smaller than other firms. In terms of average scale, the scale of state-owned enterprises is the biggest, reaching 4.47 billion RMB. Although private enterprises are very active in overseas activities, their scale is much smaller than state-owned and foreign-owned enterprises. This further confirms that the scale threshold is a must for overseas activities of Chinese enterprises. We think that private enterprises, compared with state-owned and foreign-owned enterprises, are in an inferior position within the system[7]. Form above analysis, if a firm wants to develop overseas activities, it should realize scale economy for the domestic market, which will gain comparative advantages in production. Then it can gain advantages for competitive prices in the international market, so as to expend international market and exert the strategic goal for scale economy.

Table 1: Average Scales of Different Ownerships Internationalizing Activities

Ownership	Average Scale (0.1 Billion)	Sample No.
Private	6.0	570
State-owned	44.7	92
Listed	14.9	31
Joint Venture	7.2	88
Foreign-owned	29.1	56
Overall	12.5	843*

Note: In the database, 6 firms don't report their ownership.

(3) Internationalization of Enterprises Concentrates on Labor Intensive Industries

According to the traditional theory of internationalization of enterprises, firms need competitive advantages of OIL to operating international business. The industrial comparison of internationalization of firms, we can find their competitive advantages from the consequences. From this survey, the overseas activities of most firms concentrates on the manufacturing industry, account for 81.1% of all valid samples. The wholesale and retail trade industry follows behind, account for 9.4% of all valid samples. Comparatively, the internationalization of modern service industry (especially the production service industry) is relatively small, where transportation, storage, postal and telecommunication services industry and financial intermediary industry take 1% and 1.4% of total number of firms respectively. It indicates that the international operation of Chinese service industry has a competitive disadvantage. We also find that, in manufacturing sub-sectors, internationalization mainly concentrates on the textile industry and machine and equipment industry, account for 19.5% and 18.2% of all manufacturing industries (see Table 2). From above analysis, we can see that internationalization of Chinese enterprises still concentrates on low value added and labor

[7] State-owned enterprises have more advantages in their monopoly power, opportunities in investment and finance compared with private firms. Meanwhile, before the merge of income tax in 2007, private firms took competitive pressure from foreign-owned enterprises in terms of tax, land and labor.

intensive Industries. We claim that the main advantage of Chinese international operation still lie in its low cost and domestic scale economy, which are not consist with the traditional OIL theory.

Table 2: Industrial Sector Distribution of Overseas Investments (Detailed Classification)

Industry	Firm NO.	Ratio
foods products, beverages and tobacco	48	7.09%
textiles and textile products	132	19.50%
leather and leather products	26	3.84%
wood and wood products	12	1.77%
pulp, paper and paper products; publishing and printing	16	2.36%
coke, refined petroleum products and nuclear fuel	0	0.00%
coke, refined petroleum products and nuclear fuel	58	8.57%
rubber and plastic products	38	5.61%
other non-metallic mineral products	30	4.43%
basic metals and fabricated metal products	56	8.27%
machinery and equipment n.e.c.	123	18.17%
electrical and optical equipment	56	8.27%
Manufacture of transport equipment	24	3.55%
Manufacture n.e.c.	58	8.57%
Sum	677	100.00%
Unidentified industries	136*	-
Total	810	-

Note: The unidentified industries refer to firms which report as belonging manufacturing industry, but don't report detailed classification.

(4) Regional Distribution of Internationalization

Location selection of Internationalization is one of the important components of internationalizing strategy of firms. A firm's regional distribution of international operation indicates its international competitive advantage and international strategy. From this survey, we find that Asia, Europe and America are main areas attracts Chinese international operation of firms. For about 47.6% of firms invest in Asian market, while 33% of firms choose EU Market. There are only 6% of firms choose Africa and Oceania as their internationalization location. From the observation of the industrial distribution of international operation in developed and developing countries, we find that the international operation mainly concentrates on machine and equipment industry and textile industry in developed countries. Firms can utilize their own production and organization experiences to do international operation because they have comparative advantages in production technology for these domains. As for developing countries, investment from China concentrates on textile industry, metal industry and chemistry industry. Interestingly, we find that the international operation in developing countries is mainly for Vietnam, India, and Russia. According to 2009 survey, we find that Vietnam always rank top 10 investment destination for Chinese enterprises and it becomes an important country for

Chinese outward investment. The international activities in Vietnam for Chinese enterprises are mainly concentrates on textile industry. 22 firms choose to invest in Vietnam among 37 firms who have trade relations with Vietnam, and about 18 firms belong to textile industry. For the above figures, we claim that south-east Asian countries including Vietnam become the important places for transferring the global textile industry.

Table 3: Main Destination of Overseas Activity of Chinese Enterprises (Countries and Areas)

Countries and Regions	Firm No.	Ratio
USA	110	18.00%
Japan	101	16.40%
France	75	12.30%
Hong Kong	72	11.80%
Germany	64	10.50%
South Korea	50	8.10%
Vietnam	37	6.00%
Italy	27	4.40%
The United Arab Emirates	19	3.10%
Australia	17	2.70%

III. Impacts on ODI Mode of Chinese Enterprises

When firms engage in overseas activities, as rational decision making unit, they will consider a lot of extrinsic and intrinsic factors. However, results based on the case studies show that firms adopt similar strategies with each other (Xiao et al. 2008). The “herd effect” is quite obvious in the internationalization process of Chinese enterprises. Although case studies will depict representative decision making process of firms’ internationalization behavior, the factors that have impacts on the internationalization process still need to explore on the basis of reliable enterprise survey. Therefore, this paper tries to build a regression model to explain those factors for Chinese enterprises. We will explain the impacts on the outward investment mode first, and analyze the impacts on the internalization performance of Chinese enterprises.

Green field investment, merger and acquisition (M&A), sole investment, and joint ventures are four mainly ways of ODI. Means of entering the foreign market is an important research area for international business. However, most researches of international business confine to international management and marketing. In terms of investment means, there are only few qualitative and case studies. For the current research, four means of investment have their own advantages and disadvantages:

The advantages of M&A lie in: obtain assets quickly, flexibility to enter the market. M&A avoids build workshop and offices in host countries which lowers the production cost greatly.

Even the reconstruction work can be shortened to a limited time, which accelerates the entering process of the host countries. Meanwhile, M&A facilitates large scale operation, realizing diversified business. In recent years, the multinational corporations expend their own business ranges by purchasing enterprises in host countries to compensate technology and experience for the new production and sales. However, the M&A requires large investment, and the culture difference among firms is also very big. Meanwhile, the strong limitation from host countries makes M&A not the uppermost means of outward investment. According to the survey, we find that there are only 2.7% of firms[8] choosing M&A as means to enter the target market.

Unlike the M&A, the advantage of green field investment: investors can control the whole process of the investment. The multinational corporations can greatly control the capital operation by the independence of selecting geographical location, operational scale. In terms of capital input, the multinational can use patent, technology, material, and equipment as capital input to compensate the lacking of foreign exchange finance. In terms of organization structure, there is no institutional cost which is the case for M&A. The green field investment takes low risk, which will help the firms to implement an effective managerial system. However, green field investment will take market share of other firms, so that the competition from other firms is quite fierce. Therefore, the initial survival rate is rather low for green field investment. According to our survey, we find that there are 7.9% of firms choosing green field investment as means to enter the target market.

Besides these two means of investment, the solely-invested and joint ventures are two alternatives. The sole proprietorship ensures the autonomy in management and the adopting of advanced technology of foreign investors, avoiding diffusion of technology and management strategy of parent corporations. However, the establishment of solely-invested enterprise requires a large sum of money, and the operational risk is relatively big for such investment. In contrast, joint ventures can reduce the investment, lowering the operational risk. The joint ventures will let the firm with advanced technology at a disadvantage position when protection of intellectual property is rather weak. According to the survey, we find that there are 6.4% of firms[9] choosing joint ventures as means to enter the target market.

From the above analysis, firms with overseas activities will choose means of investment on the basis of their own advantages and acquaintance of the target market. However, the factors that have impacts on the means of firm's investment are still unclear according to the literature. Considering the availability of the data, we mainly concern about the impacts of firm scale, firm ownership, market potentials of host countries, and domestic incentives on the modes of investment of Chinese enterprises. It should be noted that green field investment (direct investment), cooperative investment (joint ventures), M&A, and sole investment are four main modes of investment for this survey.

The dependant variable is a categorical variable, so that we can't directly use OLS regression. Alternatively, this paper adopts logistic regression to do econometric analysis. Logistic

[8] It accounts for 13.2% of firms with outward investment.
[9] It accounts for 31.6% of firms with outward investment.

regression can be used when dependent variable are binary or multivariate numbers. The variable used in the paper include four categories without order, therefore, this paper uses regression for disordered categories. The model will first define a certain level of response variable as reference group (SPSS defaults setting the reference group as the largest level of response variable, the selection of the reference level doesn't affect the significance of regression coefficients), and then build a general logits model for "level-1" compared with other levels. In our survey, there are four categories (four levels), the values response variable are 1, 2, 3 and 4, which represent green field investment, M&A, sole investment, and joint ventures respectively. The possibilities of each level are π_1, π_2, π_3, π_4. We suppose that there are p variables affect investment mode so that we can derive three general logits models:

$$logit\ \frac{\pi_1}{\pi_4} = \alpha_1 + \beta_{11}x_1 + \cdots + \beta_{1p}x_p$$

$$logit\ \frac{\pi_2}{\pi_4} = \alpha_2 + \beta_{21}x_1 + \cdots + \beta_{2p}x_p$$

$$logit\ \frac{\pi_3}{\pi_4} = \alpha_3 + \beta_{31}x_1 + \cdots + \beta_{3p}x_p$$

Obviously, it also requires the following equation: $\pi_1+\pi_2+\pi_3+\pi_4=1$. If we want to compare with the difference between category 2 and 3, we just subtract logit(π_1) with logit(π_3).

The detailed factors in determining outward investment modes of Chinese enterprises are as follows:

Firm Scale: According to our survey, there are three candidates for measuring firm scale: assets of the firm (Ass), firm employment (Emp), and firm sales revenue (Rev).

Internationalized Experiences：We count the number of years from first outward investment as firm's internationalized experiences (Exp).

Domestic Incentives: The survey contains several variables of incentives from domestic policy, but the correlation of these variables. This paper chooses "Going Globally" policies of Chinese Government (Pol_d) and domestic labor cost pressure (Cos) as the domestic incentives.

Host Countries' Incentives：There are several variable representing incentives from host countries. Considering the representativeness and independence, this paper chooses market potentials of host countries (Mar), R&D capability of host countries (RD), brands availability of host countries (Bra), favoring policies from host countries (Pol_h) and elusion of trade barriers (TB) for measuring incentives from host countries.

Other Factors: The survey was sponsored by CCPIT, so that the membership of CCPIT may have an effect on the investment modes of firms. This impact mainly from the fact that CCPIT will provide related help to the members. In addition, whether a recipient of FDI (FDI) or not will also affect the modes of investment.

The regression results can be shown in Table 4:

Table 4: Logistic Regression Results of Determinants of Outward Investment of Chinese Enterprises

Variable	Direct Investment (a)	Joint Ventures	M&A
Intercept	-2.394	-9.199	3.110
expr	0.372***	0.004*	0.114*
ass	0.013	-0.109***	0.035**
rev	0.010	0.009*	0.041**
emp	0.003	0.062	0.017
[pol_d=.00]	0(b)	2.939	-0.938
[pol_d=1.00]	0. 328	-1. 791	1. 545
[pol_d=2.00]	4.982**	3.134**	6.861
[pol_d=3.00]	1. 180	1. 387	6.928
[pol_d=4.00]	0.001	0(b)	0(b)
[cos=.00]	0.012	0(b)	0(b)
[cos=1.00]	5.241	-1.896	-5.051
[cos=2.00]	6.253	4.037	-5.479
[cos=3.00]	-2.573	8. 727	7.544
[cos=4.00]	0.000	0(b)	0(b)
[mar=.00]	1.993	- 8.679	2.199
[mar=1.00]	3.538***	4.054**	0.968**
[mar=2.00]	0(b)	0(b)	2.714**
[mar=3.00]	0(b)	0(b)	0(b)
[rd=.00]	4.603	6.965*	0.966
[rd=1.00]	0.793	0.431**	-1.198
[rd=2.00]	1.3401*	1.147*	1.188
[rd=3.00]	6.964	1.709*	-7.502
[rd=4.00]	0(b)	0(b)	0(b)
[bar=.00]	0(b)	0(b)	0(b)
[bar=1.00]	8.030**	3.972*	3.633**
[bar=2.00]	2.278	1.813*	1.069*
[bar=3.00]	-1.345	-0.183	-0.921*
[bar=4.00]	0(b)	0(b)	0(b)
[pol_h=.00]	0(b)	0(b)	0(b)
[pol_h=1.00]	0.849	1.009*	1.592
[pol_h=2.00]	1.942	3.838	-1.692
[pol_h=3.00]	0(b)	0(b)	0(b)
[pol_h=4.00]	0(b)	0(b)	0(b)
[tb=.00]	0(b)	0(b)	0(b)
[tb=1.00]	0.259**	2.137	6.825
[tb=2.00]	4.009***	1.280	3.107
[tb=3.00]	0(b)	0(b)	0(b)
[tb=4.00]	0.012	0.011	0.111
[fdi=.00]	1.205	6.002	0(b)

[fdi=1.00]	1.807	0.251	0.300*
[mem=.00]	1.033	0.057	0.009
[mem=1.00]	0(b)	0(b)	0 (b)
Pseudo R-Square		0.781	
-2 Log Likelihood		84.901***	

Note: (a) Logistic regression for disordered categories requires a reference group as the largest level of response variable. We choose joint ventures as our reference. (b) To ensure the maximum likelihood in the recursion process, it sets 0 automatically. (c) * stands for 10% significant level; **stands for 5% significant level, ***stands for 1% significant level (We use Wald statistics to do the significant test).

From the regression results, the fitness of the model is comparatively good, the likelihood ratio passes test of 5% significant level. From the regression coefficients, the determinants of outward investment of firms not only include intrinsic factors like firm scale, but also include extrinsic factors like domestic and foreign incentives.

Firstly, factors that have impacts on mode of direct investment include: internationalized experiences, Chinese "Going Globally" policies, market potentials of host countries, R&D capability of host countries, value of own brand, and elusion of trade barriers. The regression coefficients which are reported in the table are not standardized estimators so that we can not compare the magnitude of these coefficients of variables. Still, we can get relative relations by looking at the significance of the variable. The results show that internationalized experiences, market potentials of host countries, and elusion of trade barriers have much more significant impact on the mode of investment. In contrast, Chinese "Going Globally" policies, and R&D capability of host countries have relatively small impacts. Interestingly, firm scale, firm employment, domestic labor cost pressure, membership of CCPIT, and recipient of FDI don't have impacts on the direct investment mode. The direct investment, compared with other mode of investment, will more rely on the market potential of host countries, R&D capability and favoring policies of host countries are not very important factors. The most interest finding is that the internationalized experience has a very significant impact on the mode of direct investment of Chinese private enterprises. This positive effect confirms that the past investment experience is needed for the direct investment.

Secondly, factors that have impacts on mode of joint ventures include: firm assets, market potentials of host countries, R&D capability of host countries, internationalized experiences, firm sales, Chinese "Going Globally" policies, value of own brand, favoring policies of host countries. We find that firm asset has a significant and negative impact on the mode of cooperative investment. The possibility of adopting mode of joint ventures is lower when firm scale becomes larger. In contrast, internationalized experiences have a positive effect on the mode of joint venture though the effect is relatively small. Interestingly, R&D capability of host countries also has a significant impact. This suggests that the aim of joint venture is to do cooperative R&D, to obtain advanced technology. The market potentials of host countries are also important factors and this suggests that the investment and export motive are still important direction after technology cooperation. Unlike the direct investment mode, the favoring policies

of host countries also exert a positive effect.

Finally, factors that have impacts on M&A mode include: firm assets, firm sales, market Potentials of host countries, value of own brand, recipients of FDI. We claim that the risk of M&A is between direct investment and joint ventures, and the firm scale is a prominent factor of M&A mode. Compared with three regressions, firm assets only have a positive impact on M&A mode of investment. Firm sales revenue, another indicator, also has a positive impact on the M&A mode of investment. Furthermore, the empirical results show that whether firm has received FDI or not will also have increase the possibility for firm to choose M&A mode for entering the market of host countries.

IV. Impacts on Performance of ODI

The current studies mainly discuss about the inner factors of firms, but the development of firms ODI includes external factors such as institution and market. This paper tries to use data collected by CCPIT to investigate the factors behind the operational performance of ODI of firms.

The detailed factors in determining the operational performance of ODI of Chinese enterprises are as follows:

Domestic Incentives: The development of outward investment of Chinese enterprises is not only a result of marketization, but also a result of government promoting. The domestic incentives will naturally have impacts on the performance of ODI of firms. We choose "Going Globally" policies of Chinese government (Pol_d) and domestic labor cost pressure (Cos) as two variables representing domestic incentives.

Host Countries' Incentives：There are several variable representing incentives from host countries. Considering the representativeness and independence, this paper chooses market potentials of host countries (Mar), brands availability of host countries (Bra), favoring policies from host countries (Pol_h) and elusion of trade barriers (TB) for measuring incentives from host countries.

Other Factors: The survey was sponsored by CCPIT, so that the membership of CCPIT may have an effect on the investment modes of firms. Whether a recipient of FDI (FDI) or not will also affect the modes of investment. In addition, we choose internationalized experiences to capture the cumulative effects on the firm's ODI performance.

In terms of ODI performance of firms, this paper adopts TNI indicator released by UNCTAD as a proxy. This index is arithmetic mean of shares of sales, employees and assets of overseas investment in total sales, employees, and assets. Most of variables we use are qualitative indicators because of the confinement of data limitation. In stead of OLS regression, we follow the treatment of Xiao and Chen (2008), which adopts the categorical regression.

Linear regression requires numeric independent variables, and the regression coefficient of same variable is constant. For example, if independent variable X moves from 1 to 2 or from 100 to 101, the impacts of X on Y are the same for the two cases. This implicitly confines the equidistant measurement of independent variables. However, most of our variables are categorical ones. For example, "Going Globally" policies of Chinese government (Pol_d) are subjective feelings of importance (0-4) for the firms. If we simply put this variable into OLS regression, we assume the equal length of different categories, which is an idea and simple assume that will lead us to wrong conclusions. On the other hand, disordered categorical variables such as membership of CCPIT (0-1 variable), only indicates the membership state of the firm. We can use dummy variable in the standardized analysis. However, it is difficult to do that when other variables are also categorical variables.

Therefore, this paper uses optimal scaling transformation to treat related variables. The idea behind optimal scaling is to assign numerical quantifications to the categories of each variable, thus allowing standard procedures to be used to obtain a solution on the quantified variables.
The optimal scale values are assigned to categories of each variable based on the optimizing criterion of the procedure in use. Unlike the original labels of the nominal or ordinal variables in the analysis, these scale values have metric properties. In most Categories procedures, the optimal quantification for each scaled variable is obtained through an iterative method called alternating least squares in which, after the current quantifications are used to find a solution, the quantifications are updated using that solution. The updated quantifications are then used to find a new solution, which is used to update the quantifications, and so on, until some criterion is reached that signals the process to stop. Therefore, we use optimal scaling to run the categorical regression. The regression results can be shown in Table 5:

Table 5: Impacts on Operational Performance of ODI of Chinese Enterprises

Variable	Model 1	Model 2
Expr	0.339***	0.517***
Pol_d	0.021***	0.021***
Cos	0.159	
Mar	0.234**	0.109*
Bra	0.009*	0.045*
Pol_h	0.191	
TB	0.481*	0.401*
Mem	0.035	
FDI	0.519	
R-Square	0.622	0.610

Note: * stands for 10% significant level; **stands for 5% significant level, ***stands for 1% significant level

From table 5, model 1, we can see that domestic labor cost pressure, favoring policies from host countries do not have significant impacts on ODI performance of Chinese enterprises. Therefore, the economic motive of firm to invest abroad is not caused by the raising of domestic labor cost.

In other word, the outward investment of firms will not be confined to the movement of domestic production cost. However, we find that firms which invest in the developing countries, especially for African countries, the promoting effect of cost pressure can not be ignored. Meanwhile, membership of CCPIT and whether a recipient of FDI or not do not have significant impacts on ODI performance of Chinese enterprises.

Through the coefficients of model 2, we find that internationalized experiences and "Going Globally" policies of Chinese government have strongest impacts among all explanatory variables. The categorical regression coefficients are standardized estimators so that we can compare the magnitude of these coefficients of variables. This confirms strongest magnitude of internationalized experiences. Internationalized experiences (including successive and failure experiences) will have an enduring impact on the firm's development. On one side, entrepreneurs will become more sophisticate in handling the risk. On the other side, the government and third intermediary agency will also gain experience of such successive or failure cases, which may raise the possibility of success for other firms' outward investment. In addition, market potentials of host countries, elusion of trade barriers, and brands availability of host countries also have positive impacts on ODI performance of Chinese enterprises. Among these variables, elusion of trade barriers has the biggest impact, which is endogenous motive for firm to enhance the investment.

V. Conclusion

The big challenge which is faced with scholars to study the internationalization of firms in developing countries is the availability and reliability of micro data. This paper uses micro data provide by CCPIT to explore the factors behind internationalization of firms. Through descriptive and regression analysis, we examine the factors that have impacts on the ODI mode and performance of Chinese enterprises. In terms of factors that have impacts on ODI mode, Chinese market potentials of host countries, R&D capability of host countries, and internationalized experiences are important factors. This confirms that the internationalization of Chinese enterprises is greatly affected by extrinsic factors. "Go Globally" policies of Chinese government accelerates the impulsion for ODI of Chinese enterprises, it will also trigger direct investment and M&A mode for Chinese enterprise. Of course, how to distinguish the self-motivation and government promotion of firms is a future question to study.

About Impacts on internationalization performance, we follow Xiao and Chen (2008), and further confirm the prominent role of internationalized experiences. The accumulation of internationalized experiences will increase the possibility of firm's success during the development of internationalization of Chinese enterprises.

From comparison of other factors, we find that the policy of host countries and the increasing production cost don't impose effective impacts on firm's operational performance during the internationalizing process. This evidence confirms that the investment of Chinese firm may be confined by the institution. Once the regulation has been loosened, the performance of ODI of Chinese firm will not be correlated with their cost in domestic market.

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