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MOTIVATIONS OF CHINESE OUTWARD FOREIGN DIRECT INVESTMENT: AN ORGANIZING FRAMEWORK AND EMPIRICAL INVESTIGATION

ABSTRACT

This article examines the recent motivations of Chinese outward foreign direct investment (FDI) by introducing a more comprehensive organizing framework. Theoretically, this paper extends Moon and Roehl's (2001) imbalance theory from the imbalance of firm ownership to locational perspective as an important motivation of MNCs, and finds that such extension can better explain Chinese FDI. This paper also introduces a more comprehensive framework of Chinese FDI motivations, which includes four types of conventional FDI based on ownership or locational advantages and other six types of unconventional FDI. Empirically, this article provides some important proxy variables for FDI motivations and tests hypotheses. The results show that Chinese FDI is driven by conventional types and unconventional types at its early stage of Chinese FDI, which provides important implications for FDI decisions of firms from China and other countries at similar stage of development. This paper also distinguishes the asset-seeking FDI of scientific and commercial technology, and it finds different patterns of spatial distribution regarding the two motivations.

Key Words: China, outward foreign direct investment, motivation, conventional, unconventional, imbalance

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INTRODUCTION

Chinese enterprises have progressively participated in international competition, and this has made China to emerge as one of the major exporters of foreign direct investment (FDI) in recent years. The phenomenal growth of Chinese outward foreign direct investment (OFDI) and its distinctive characteristics compared to those of advanced and other emerging economies, are now attracting increasing attention of scholars and researchers in the international business field. It is widely acknowledged that traditional FDI theories based on the developed country multinationals cannot satisfactorily explain the FDI activities of multinationals from China. However, there is still no consistency to what extent Chinese OFDI activities are different from those by Western multinationals. For this matter, this paper applies and extends Moon and Roehl's (2001) imbalance theory to both ownership and locational advantages and disadvantages, and shows that this theory better explains Chinese OFDI motivations and locational distribution.

So far there have been a number of studies on Chinese OFDI, regarding trends, drivers, and motivations (Zhang and Daly, 2011), location determinants, and entry modes (Cui and Jiang, 2010). However, the number of studies on Chinese OFDI is much fewer compared to the inward FDI towards China. Furthermore, although several studies have investigated Chinese motivations for investing abroad, they have not well covered a comprehensive picture of Chinese OFDI. This article provides a new comprehensive framework to examine the various FDI motivations of Chinese firms and tests how each motivation influences the FDI flow from China to other countries. Among the 10 types of motivations, four types are categorized as conventional FDI, while the other six types are considered unconventional FDI.

An important finding is that not only conventional but also unconventional investment activities appear at the early stage of Chinese FDI. This paper also distinguishes the asset-seeking FDI of scientific and commercial technology. It finds that the former one (asset-seeking FDI of scientific technology) tends to flow into advanced countries that have advanced institutions, developed infrastructure, and sophisticated market, while the latter one (asset-seeking FDI of commercial technology) goes to both developing and developed countries that possess large market and overseas Chinese populations. Therefore, unlike the general assumption that the asset-seeking motivation only occurs among advanced countries, the empirical test shows that it also happens in the developing countries.

This paper is organized as follows. First, it reviews and evaluates the previous studies on the motivations of Chinese FDI and then introduces a comprehensive framework, which incorporates both conventional and unconventional motivations. This paper also provides the hypotheses to explain Chinese OFDI. In the following empirical section, this paper describes the methodology, proxy variables and the measurement, and data collection. The research then goes on to test the hypotheses using the official FDI data reported by the Ministry of Commerce of the People's Republic of China (MOFCOM). It concludes by giving important implications of these findings and suggestions for future research directions.

LITERATURE REVIEW

Dunning's (1988; 2000) eclectic or OLI (Ownership, Location, and Internalization) paradigm has been the dominant analytical framework of the FDI determinants. However, the traditional FDI theory led by Dunning's OLI paradigm is often criticized for not satisfactorily explaining the international behavior of multinationals from emerging economies (Moon and Roehl, 2001). One of the key criticisms on the traditional FDI theory is that it is grounded on the developed country multinationals, which is apt to maximize profits through FDI by exploiting their existing ownership advantages. However, emerging firms from developing countries do not possess such firm-specific advantages when they engage in the overseas investment.

Some studies (e.g., Li, 2003; 2007) argued that the emerging firms' FDI is not to exploit their ownership advantages abroad, but to address their ownership disadvantages and seek the advantages which are necessary for competing in the global arena. Hedlund and Ridderstrale (1997) incorporated the *exploitation* and *exploration* (March, 1991) in the international business research and argued that the existing dominant theory mainly explained about exploitation but ignored the exploration perspective. Mathews (2006) then introduced the LLL (Linkage, Leverage, and Learning) framework and illustrated how the latecomer multinationals, even without prior possession of significant resources, improve their competitiveness and catch up with the industrial leaders.

Makino, Lau, and Yeh (2002), on the other hand, showed that FDI from the newly industrialized economies had the characteristics of both asset-exploiting and asset-seeking FDI, depending on the country-specific factors of the host country as well as the firms' degree of the capabilities. In the similar vein, Moon and Roehl's (2001) imbalance theory also explains the emerging firms' FDI, by incorporating both conventional and

unconventional motivations. Conventional FDI can be linked to Makino et al.'s (2002) asset-exploiting and unconventional FDI to the asset-seeking FDI. The key essence of this theory is that the determinants of FDI should not only be the firm ownership advantages, but also the disadvantages and the balance between the two. The FDI's motivated by the ownership advantages are often regarded as the conventional ones, while the FDI's motivated by the disadvantages are the unconventional ones. Therefore, motivations or determinants of Chinese OFDI should include both conventional and unconventional FDI's.

The existing studies on the determinants of Chinese OFDI can be categorized in the following two levels of analysis: home and host country characteristics. Studies on determinants based on home country characteristics such as institutional disadvantages (Child and Rodrigues, 2005; Rui and Yip, 2008) and government constraints (Kolstad and Wiig, 2009; Morck, Yeung, and Zhao, 2008) that encourage Chinese firms' overseas investment. Studies based on the host country determinants often refer to the locational advantages of host countries. This paper concentrates on the host country advantages.

Building on the OLI paradigm, Dunning (2000) suggested four types of investment motivations (or host country advantages), including resource-seeking, market-seeking, efficiency-seeking, and strategic-asset-seeking. However, the OLI paradigm does not properly regard unconventional FDI, namely, strategic investments and FDI from less developed countries (LDCs) (Moon and Roehl, 2001). Dunning's strategic-asset-seeking FDI refers to augmenting the existing competitive advantages, but does not necessarily search for new advantages, which becomes more popular than ever by LDC firms in this globalized economy.

Dunning's typology has been adopted by many studies on host country determinants of Chinese OFDI (Buckley et al., 2007; Amighini, Rabellotti, and Sanfilippo, 2013), and many of them included the three motivations of resource, market, and asset-seeking, while excluding efficiency-seeking motivations because of its low labor-cost advantage. In addition to these four types, there are many other motivations examined. Cai (1999) and Wu and Chen (2001) pointed out the driving force behind capital raising because of China's inefficient and underdeveloped capital market and financial institutions. Deng (2004) and Hong and Sun (2006) found diversification-seeking as an important determinant

of Chinese FDI. However, these studies all adopted the approach of case-based analysis due to the limited access to the aggregate data* on Chinese FDI before the mid-2000s.

Buckley et al. (2007) is the pioneering study on testing the determinants or drivers of Chinese OFDI using the aggregate data from 1984 to 2001. This study added several host country attributes such as political risk, cultural proximity, policy liberalization, exchange rate, and trade relationship with the host country, geographic distance, and openness to FDI, affecting the amount of outflow of Chinese OFDI. Cheung and Qian (2009) and Hurst (2011) tested the efficiency-seeking motivation by adding the wage of the host country, as the Chinese wage increased rapidly. They also included the institutional factors, such as political risk, labor freedom, and government spending of host countries.

Unlike the above three studies which used FDI data approved by the Chinese government, Cheng and Ma (2008) and Kolstad and Wüig (2009) utilized the actual Chinese FDI data. The actual flow data have an advantage against the approved data which are criticized for being biased and underestimated than the real flows. Cheng and Ma (2008) included the variables of tax haven and offshore financial centers, given the fact that more than 80% of Chinese OFDIs were concentrated on these places in 2006. However, considering that Cheng and Ma (2008) did not analyze the determinants of natural resources and institutional factors, Kolstad and Wüig (2012) mainly tested the influences of these factors on Chinese FDI flows and distribution.

There are also some other studies using the dataset at the firm level. Quer, Claver, and Rienda (2012) particularly examined the factors of host country political risk and cultural factors. Amighini et al. (2013) is one of the first studies that tested the human resource of host country by including the variable of host country's education level. Ramasamy, Yeung, and Laforet (2012) incorporated the variables mentioned by Buckley et al. (2007), but they distinguished the differing location choices based on the ownership, either state-owned Chinese firms or private firms.

The motivations emphasized by the above literature are summarized in Table 1. There is no consistent framework adopted for explaining the determinants of Chinese OFDI. The results of the same determinants are also often mixed because of the analysis using different dataset, samples, and the time periods. In order to evaluate the FDI motivations examined by these existing studies related to Chinese FDI, a comprehensive model of competitiveness, Porter's (1990) diamond model, is introduced. The diamond

* It is since 2003 that Chinese OFDI data were published by the Ministry of Commerce (MOFCOM) in accordance with the definitions or guidelines of OECD and IMF (Cheng and Ma, 2008).

model's important merit is that it incorporates the most important variables in one framework, without overlapping variables. In this respect, the diamond model will be useful to categorize the extant Chinese OFDI motivations into several clusters that have similar characteristics, and examine whether there is any motivations neglected in the preceding studies. The diamond model was first intended to explain the national competitiveness, but it was also found to be useful in explaining key FDI impacts (Dunning, 2003) and FDI motivations (Moon, 2007). Rugman and Oh (2008) also argued that the "double-diamond" can be an alternative framework to explain the outward FDI.

Table 1. Studies on Chinese OFDI motivations

Existing Studies	Motivations
1. Cai (1999)	Export-market-seeking, resource-seeking, technology-and-management-skills-seeking, capital-raising
2. Wu and Chen (2001)	Resource-seeking, technology-and-management-skills-seeking, capital-raising, export-market-seeking, industry adjustment (market-seeking), foreign-exchange-securing
3. Deng (2004)	Resource-seeking, technology-seeking, market-seeking, diversification seeking, strategic-asset-seeking
4. Hong and Sun (2006)	Resource-seeking, technology-seeking, market-and-diversification-seeking, strategic-asset-seeking
5. Buckley et al. (2007)	Market-seeking, resource-seeking, asset-seeking (technology, brands, local networks), political risk, cultural proximity, policy liberalization
6. Cheung and Qian (2009)	Market-seeking, resource-seeking, efficiency-seeking, institutions and political risk, cultural resemblance
7. Hurst (2011)	Market-seeking, resource-seeking, strategic-asset-seeking, efficiency-seeking
8. Cheng and Ma (2008)	Market-seeking, cultural proximity, tax havens and offshore financial center
9. Kolstad and Wiig (2012)	Resources, institutions
10. Quer et al. (2012)	Political risk, cultural distance
11. Amighini et al. (2013)	Market-seeking, resource-seeking, strategic-asset-seeking, human capital, political risk, infrastructure
12. Ramasamy et al. (2012)	Market-seeking, resource-seeking, strategic-asset-seeking, political risk

Table 2 illustrates the focus of 12 studies on Chinese OFDI locational determinants organized by the four different categories of the diamond model. Factor conditions refer

to resource, low cost and human capital, strategic asset, and capital raising; demand conditions include the motivations of seeking markets; related and supporting industries represent the locational attributes of infrastructure, cultural, and institutional factors; and firm strategy, structure, and rivalry incorporate the motivations of risk diversification, and tax havens and offshore financial center.[†] Although the majority of Chinese overseas investments flow into the tax havens and offshore financial centers, these investments are often temporary and transferred to other host countries in the end. As Table 2 shows, FDI motivations by the existing studies deal not with the entire, but with only some parts of the diamond determinants. Therefore, a more comprehensive study of the motivations of Chinese FDI motivations is needed.

Table 2. Limitations of existing studies on Chinese FDI motivations

Studies	FC	DC	RS	SSR
1. Cai (1999)	○	○		
2. Wu and Chen (2001)	○	○		
3. Deng (2004)	○	○		○
4. Hong and Sun (2006)	○	○		○
5. Buckley et al. (2007)	○	○	○	
6. Cheung and Qian (2009)	○	○	○	
7. Hurst (2011)	○	○		
8. Cheng and Ma (2008)		○	○	○
9. Kolstad and Wiig (2012)	○		○	
10. Quer et al. (2012)			○	
11. Amighini et al. (2013)	○	○	○	
12. Ramasamy et al. (2012)	○	○	○	

A MORE COMPREHENSIVE FRAMEWORK FOR CHINESE OFDI MOTIVATIONS: HYPOTHESES

Using the diamond model, Moon (2007) provided a model to explain various FDI motivations of Korean firms. Cheng and Ma (2008) suggested that the experiences of Korea and Japan - the two Asian economically advanced countries - can be good benchmarking models for Chinese future OFDI. However, the limitation is that these leading investors cannot catch up the dynamics of Chinese future FDI. In this respect, it makes sense to extend this approach by combining the analytical framework of Moon (2007) and the determinants suggested by the existing studies on China's FDI. In addition, this

[†] This paper applies Moon's (2007) method for the categorization of Chinese OFDI motivations based on the four factors of the diamond model.

article hypothesizes the ability of these motivations to illustrate the recent pattern of Chinese OFDI and conducts an in-depth empirical analysis.

The destination for capital raising in the early studies (e.g., Cai, 1999; Wu and Chen, 2001) referred to the financial centers, Hong Kong in particular. Hong Kong also acted as a window of observing the world market trends and the channel of achieving the updated information (Cai, 1999). Thus, this motivation is similar to the motivation of seeking tax havens and offshore financial centers which were examined in recent studies (e.g., Cheng and Ma, 2008). Ultimately, this study converges the two motivations into a single concept called “strategic location,” categorized under “firm strategy, structure, and rivalry.” In addition, since the level of human capital is highly related or imbedded in the strategic assets such as technology and skill; Amighini et al.’s (2013) human-capital-seeking is categorized under the motivation of strategic-asset-seeking. On the other hand, the motivation of risk diversification proposed by Deng (2004) and Hong and Sun (2006) refers to market or business diversification. Market diversification can be captured by the motivation of marketseeking, while business diversification is more related to firm-level characteristics. Hence, this study does not separate risk diversification as an independent sub-category.

Accordingly, Chinese FDI motivations can be reorganized as shown in Table 3. This framework incorporates both conventional and unconventional investments. Under each of the four factors of the diamond model, there are several sub-types of specific motivations. Among the 10 different motivations, the four sub-types (1-1, 1-2, 2-1, and 3-1) are conventional FDI based on ownership advantages and the other six types are unconventional FDI related to ownership disadvantages as key motivations for going abroad. This framework for the motivations of Chinese overseas investment is more comprehensive, since no existing studies have included all these elements in one framework. In addition, this framework added two new variables, market learning (2-2) and labor-management relations (4-1), which are neglected in the earlier empirical studies. What should be noted is that, the numbers represent the specification of different types of motivations, rather than the meanings that Chinese firms pursue more unconventional FDI than conventional ones.

Table 3. Types of Chinese FDI motivations

Factor conditions	1-1 Natural resource
	1-2 Cheap labor
	1-3 Strategic asset-seeking *
Demand conditions	2-1 Market-seeking
	2-2 Market-learning *
Related & Supporting Industries	3-1 Network relations
	3-2 Infrastructure *
	3-3 Regulation-bypassing *
Firm Strategy, Structure & Rivalry	4-1 Labor-management relations *
	4-2 Strategic location *

* represent the unconventional motivations.

Factor conditions

Natural resource (1-1)

Natural-resource-seeking, notably oil, natural gas and minerals, is one of the key motivations for Chinese FDI from the beginning of the country's internationalization (Deng, 2004; Hong and Sun 2006). Likewise, Chinese government uses OFDI to provide a stable supply of natural resources required for the increasing domestic demand (Davies, 2009). In 2012, the mining sector, which was the second largest sector of Chinese OFDI flow, accounted for 15.4%. China invested in the resource-rich countries of both developing (e.g., Africa, Latin America) and developed (e.g., Australia, Canada) countries (Buckley et al., 2007). The proxy for the endowment of natural resources is the host country's ratio of raw material exports (including ores and metals) to its total merchandise exports (Buckley et al., 2007; Cheung and Qian, 2009). Thus, I hypothesize:

Hypothesis 1: Chinese OFDI is associated positively with the host country's endowment of natural resources.

Cheap labor (1-2)

Since China is well-known for its large size of labor force and cheap labor, there might be less incentives for Chinese firms to engage in OFDI to exploit the low-cost advantage abroad. Some scholars (Deng, 2004; Buckley et al., 2007) argued that instead of going abroad, firms might be more likely to shift their production from coastal to inland regions that have lower labor cost. This is why there are only a few studies that discuss this motivation as a determinant of locational choice. However, with the rise of domestic labor

cost, some firms move their production sites to cheaper foreign countries, such as Vietnam and Africa (Davies, 2009; Deng, 2009). The proxy for measuring the motivation of efficiency can be the host country's relative wage in the manufacturing sector compared to that of China (Cheung and Qian, 2009). Thus, I hypothesize:

Hypothesis 2: Chinese OFDI is associated negatively with the host country's labor compensation in manufacturing.

Strategic-assetseeking (1-3)

Strategic assets such as technology, management and marketing skills, brand, distribution channels, are important targets aimed by MNCs from developing countries when investing in the advanced countries. Whereas the natural resources emphasize the inherited assets of the host countries, the strategic assets focus on the created and advanced resources. Firms from developing countries lack such strategic assets, and hence OFDI is often adopted as a means to overcome their existing disadvantages by acquiring the needed advantages overseas (Andreosso-O'Callaghan and Qian, 1999; Deng, 2004; Li, 2007). This paper adopts Ramasamy et al.'s (2012) method of the proxy for measuring the proprietary ownership advantages of host countries. There are two variables. One is the number of patent registrations of the host country. However, not all patents are commercial and Chinese firms engage in FDI for seeking the applied technology which has higher commercial values. Therefore, another variable is needed, which is the ratio of technology exports to total exports of the host country (Ramasamy et al., 2012). Thus, I hypothesize:

Hypothesis 3: Chinese FDI is associated positively with the host country's endowment of advantages in the advanced scientific and commercial technology.

Demand conditions

Market-seeking (2-1)

Many companies invest abroad in the form of specialized trading companies to promote the export sales of their products (Davies, 2009; Wong and Chan, 2003). Companies also seek foreign markets to diversify the risk of focusing on just the domestic market (Davies, 2009; Deng, 2004). Moreover, the saturated domestic market and intensive competition in industries such as textiles and electronic appliances diminish the profit and therefore pressure them to go abroad to seek higher profits (Deng, 2004; Hong and Sun, 2006). GDP

and GDP per capita are often used as the proxies for market seeking motivation (e.g., Buckley et al., 2007; Cheung and Qian, 2009; Ramasamy et al., 2012). Thus, I hypothesize:

Hypothesis 4: Chinese FDI is associated positively with the host market size.

Market-learning (2-2)

According to Porter's (1990) diamond model, not only market size but also market sophistication is important for enhancing national and also firm competitiveness. In the case of Korea, firms established foreign production facilities to learn the sophisticated local consumer tastes or access to the design facilities (Moon, 2007). This motivation is different from the strategic-asset-seeking since it is more likely to be determined or affected by the characteristics of local consumers rather than local strategic assets such as high technology. Although China has the advantage of possessing large market, its market sophistication is relatively low compared to the advanced countries. In addition, according to Moon (2015a), enhancing competitiveness is to find the balanced combination of imbalanced international and domestic resources in the diamond. Thus, there might be a good reason for Chinese firms to invest abroad for seeking the sophisticated market. Yet this motivation is often neglected by the existing studies on Chinese OFDI locational determinants although in reality there are evidences to support this type of FDI. For example, Haier established its first overseas venture in the United States in 1994, since then, it has further developed an industrial park in South Carolina. The local design has improved the quality and brand recognition of its products (Mirza, 2007). The proxy for market learning is the sophistication of local consumer market. Thus, I hypothesize:

Hypothesis 5: Chinese FDI is associated positively with the host market sophistication.

Related and supporting sectors

Network relations (3-1)

More than 70% of Chinese FDI goes to Asian countries which are similar in cultures with China. In these countries, there are numerous ethnic Chinese, who can facilitate market entry and development, and therefore reduce commercial risk (Buckley et al., 2007; Wu and Chen, 2001). This motivation is captured by the existing studies through the determinants such as cultural proximity (Cheng and Ma, 2008; Cheung and Qian, 2009). The proxy variable for this motivation is the number of ethnic Chinese in the host country (Buckley et al., 2007; Hurst, 2011). Thus, I hypothesize:

Hypothesis 6: Chinese FDI is associated positively with the number of ethnic Chinese in the host country.

Infrastructure (3-2)

Whereas the network relations emphasize the psychological perspectives, the infrastructure-seeking motivation focuses on the physical perspective. The relatively poor infrastructure in China is another disadvantage that pushes Chinese firms to go abroad. Good infrastructure will reduce firms' transaction costs. Amighini et al. (2013) argued that a well-developed infrastructure encourages the inflow of foreign investment by facilitating the transaction and knowledge spillover. Amighini et al. (2013) used the proxy variable of telephone mainline subscribers per 1,000 people of the host country. However, in the more mobile and interconnected global business environment, the Internet infrastructure becomes more important since it affects the efficiency of both people's life and firms' business activities (ITU, 2011). Accordingly, this paper used the proxy of Internet users per 100 people of the host country. Thus, I hypothesize:

Hypothesis 7: Chinese FDI is associated positively with the host country's infrastructure development level.

Regulation-bypassing (3-3)

The high level of Chinese' business regulations or poor institutions is another important factor that affect the outflow of Chinese FDI. In contrast to most empirical studies that demonstrated positive relationship between the well-developed institutions and total FDI inflows, the influences of institutions on Chinese outward flow of FDI have mixed results. Some studies (e.g., Kolstad and Wiig, 2012) argued that Chinese FDI is attracted to countries with poor institutions. This is because most Chinese firms engage in FDI are state-owned and serve towards political objectives instead of profit-maximization. On the other hand, Cheng and Qian (2009) found no significant relationship between Chinese OFDI and host countries' institutions (developing and developed countries). However, since Cheng and Qian tested the data of 10 years old, this may not well reflect the recent trend of Chinese FDI. In addition, the influences of host country institutions may be different between developing and developed countries. This paper selected the proxy of the overall score of the index of economic freedom published by the Wall Street Journal and Heritage

Foundation that measures the degree of economic freedom and the government intervention. Thus, I hypothesize:

Hypothesis 8: Chinese FDI is associated positively with the institutional development of host countries.

Firm strategy, structure, and rivalry

Labor-management relationship (4-1)

This has been an important determinant of many Korean firms' investments abroad (e.g., Hyundai's investment in Alabama in the US), because of the increasing tensions between labor and management particularly in the labor-intensive industries (Moon, 2007). However, the motivation is neglected by the existing studies on Chinese FDI determinants. Recently, there have already been the signs of increasing labor strikes in the labor-intensive industries in China, such as the labor strike erupted in the manufacturing factories of Foxconn in China. Hurst (2011) incorporated the variable of labor freedom index in the empirical test of Chinese FDI determinants, but it is used as the proxy for the efficiency-seeking FDI which aims to lower the production cost. The proxy for measuring the labor-management relationship is the labor-employer relations of host country. Thus, I hypothesize:

Hypothesis 9: Chinese OFDI is associated positively with the host country's favorable labor management relations.

Strategic location (4-2)

The top destinations of Chinese FDI are tax havens such as Cayman Islands and British Virgin Islands, and the offshore financial centers such as Hong Kong. Majority of Chinese FDI was made in these countries. However, they are not the ultimate destinations, and Chinese firms often reinvest in other places, however, the breakdown of the destinations is mostly unknown (Cheng and Ma, 2008). This paper used the dummy variable as a proxy for either tax havens listed by OECD or offshore financial centers issued by the IMF (Cheng and Ma, 2008). Thus, I hypothesize:

Hypothesis 10: Chinese OFDI is associated positively with the host country's strategic characteristics of being either tax havens or offshore financial centers.

METHODOLOGY AND DATA

Methodology

As shown above, there are 12 variables in the 10 motivations. However, due to lack of data, the empirical test included 11 variables of 9 motivations, excluding the motivation of seeking cheap labor. In addition to the 11 Explanatory variables, this paper also added some control variables, including inflation rate, geographic distance, and openness to FDI of the host countries (Buckley et al., 2007; Ramasamy et al., 2012; Kolstad and Wiig, 2012). Table 4 shows the details of variables and their proxies.

Table 4. List of variables and proxies

Variables	Proxies	Source
NR	Ores and metals exports as a percentage of recipients' total merchandise export	World Bank Development Indicators
PAT	Number of registered patents in the US Patent Office	World Intellectual Property Organization
EXTECH	Ratio of high technology products to the host country's total exports	World Bank Development Indicators
GDP	Host country's GDP	World Bank Development Indicators
GDPP	Host country's GDP per capita	World Bank Development Indicators
MS	Host country's market sophistication (survey)	World Economic Forum
CHIPOP	Number of host country's Chinese population	Ohio University Library
INT	Host country's Internet users per 100 people	Akamai
INST	Index of economic freedom of host country	World Bank Governance Indicators
LMR	Labor-employer relations of host country (1=confrontational, 7=cooperative) (survey)	World Economic Forum
STRL	STRL=1 when it is tax haven or offshore financial center	OECD, IMF
INF	The annual inflation rate of host country	IMF, World Economic Outlook
DIS	Geographic distance between China and host country capitals	www.cepii.fr
OPEN	Ratio of inward FDI stock to the host country's GDP	UNCTAD

The motivations of MNCs are often mixed when they engage in overseas investment for more than one reason, and motivations can also evolve as time passes (UNCTAD, 2006). In the case of China, it has been around two decades since the government's promotion of its firms' overseas investment. Therefore, instead of testing

each motivation conducted by existing studies, this study focuses more on the changing pattern of combined motivations. For this, this study used the factor analysis and ordinary least squares (OLS) to estimate the relationship between FDI motivation and its flows.

The descriptive testing process is as follows. First, this paper calculated the Pearson Correlation to determine the related proxies of independent and control variables with Chinese OFDI flows. To examine whether there exist different patterns of outward FDI flow towards developed and developing countries, this paper also divided the total sample countries into two groups, OECD and non-OECD countries and calculated the correlation, respectively. Second, the study selected the related variables for factor analysis, thereby disaggregating them into several groups of motivations. Third, the paper ran the multiple regressions and investigated how much they can explain the Chinese FDI.

Sample and data

This article investigated the motivations of Chinese FDI during the period from 2010 to 2012 after the 2008 Financial Crisis, showing the most recent characteristics of Chinese OFDI, which are not included in many other studies, and therefore, provides more reliable results on the sources of motivation of Chinese OFDI. Eighty one countries host Chinese FDI in this data set, of which 30 are OECD countries and 51 are non-OECD countries. The amount of OFDI includes both financial and non-financial sectors. The overall 81 host countries of Chinese OFDI represent about 83% of the total outflow from 2010 to 2012.‡

To minimize the external effect on the flow of Chinese FDI in one year, I used the three-year-moving average methodology for both dependent and independent variables. The time period of the data for independent variables have three years preceding the dependent variable because of the lagged effects, which assumes that the current investment decision is based on the past data performance of host countries (Ramasamy et al., 2012). In addition, all the data are transformed into natural logarithms except for the dummy variable (i.e., strategic location), because it is expected that there is a non-linearial relationship based on the preceding empirical studies (Buckley et al., 2007).

‡ The second (British Virgin Islands) and the third (Cayman Islands) largest host economies of Chinese OFDI are excluded because of the data unavailability. The two economies collectively accounted for more than 10% of Chinese total OFDI flows during the period of 2010-2012.

RESULTS AND DISCUSSION

Correlation among variables

Table 5 presents the relationship of Chinese OFDI with 10 independent and three control variables. The results show that the variables having significant relationship with Chinese OFDI are different among the three country groups. For all countries, variables of significance are strategic-asset-seeking variables (lnPAT and lnEXTECH), market-seeking and learning variables (lnGDP, lnGDPP, and lnMS), network relationships (lnCHIPOP), geographical distance (lnDIS), and FDI openness (lnOPEN) of host countries; other variables such as natural resource (lnNR), institutions (lnINST), Internet (lnINT), and inflation rate (lnINF) are correctively signed but are not significant.

Table 5. Correlation of logarithms of OFDI and ten independent variables

	All (n=81)	OECD (n=30)	Non-OECD (n=51)
lnNR	0.129	0.154	0.114
lnPAT	0.372 ***	0.556 ***	0.425 ***
lnEXTECH	0.260 **	0.232	0.268 *
lnGDP	0.428 ***	0.507 ***	0.482 ***
lnGDPP	0.219 *	0.191 **	0.123
lnMS	0.323 ***	0.420 **	0.297 **
lnCHIPOP	0.517 ***	0.685 ***	0.457 ***
lnINST	0.160	0.347 *	0.047
lnINT	0.158	0.382 **	0.110
lnLMR	0.179	0.060	0.227
lnINF	-0.123	-0.387 *	0.352 **
lnDIS	-0.364 ***	-0.046	-0.500 ***
lnOPEN	0.215 *	0.054	0.315 **

Note: 1) ***p<0.01, **p<0.05, * p<0.10. 2) The results for the variables of lnGDPP, lnINF, and lnOPEN are obtained by eliminating some outliers.

The patterns of correlation coefficient are also different for OECD and non-OECD country groups. For the OECD economies, cultural proximity (lnCHIPOP) showed the highest correlation coefficient, followed by strategic-asset-seeking (lnPAT) and market-seeking variables of both size (lnGDP) and sophistication (lnMS). On the other hand, for non-OECD group, marketing-seeking variable in terms of size (lnGDP) witnessed the highest value, followed by network relations and asset-seeking (lnPAT and lnEXTECH).

The institutional (lnINST) and infrastructure (lnINT) factors were only significant for the OECD group.

The network relations, in particular, showed high correlation coefficient for both OECD and non-OECD countries. This means Chinese firms going abroad are not so competitive in terms of their firm-specific ownership advantages and lack international experiences compared to the firms from advanced countries, and these networks can compensate the Chinese firms for their relatively late entry into the international markets (Li, 2003). In practice, for example, investments by some larger but relatively unknown MNCs, investing in some host countries such as Thailand, the Lao People's Democratic Republic, and Cambodia, are often underwritten by close links between individuals in China and the host country who are usually the people with Chinese ethnic origin (Mirza, 2007).

Regarding the strategic-asset-seeking motivation, unlike the general assumption that it is more likely to happen when investing in advanced countries, the result showed that it occurred in both developing and developed countries. This can be explained using the arguments proposed by Moon (2015b) that with the rapidly changing and turbulent business environment as well as the fast catch-up of developing countries, the gap of superior ownership advantages (mostly referred as technology) between developed and developing countries actually decreases. In addition, the significance of commercial technology (i.e., lnEXTECH) only applies to the non-OECD countries. This signifies that there may be more applied-technology advantages in developing countries, which may not be scientifically superior but have higher commercial values.

The variable of GDP per capita is often used by existing studies for measuring the market size of host countries. In fact, countries with higher GDP per capita tend to be more advanced countries with larger pool of skilled labor force. In this study, this is found to be only significant for OECD country group. The positive sign suggests that Chinese firms' investment in advanced countries is to seek skilled labor rather than cheap labor.

Natural resources and labor-management relations, however, did not show significant relationship for both OECD and non-OECD countries. The insignificance of labor-management relations showed that despite the increasing labor strikes in China, it yet has not been a key and popular motivation as in Korea's case in Moon (2007). The insignificance of resource-seeking motivation is in fact consistent with many of the existing studies. Their argument is that the host countries of Chinese resource-seeking FDI are often with high political risk or poor institutional development (e.g., Africa). Some studies actually

found significant relationship for the variable of interactions between natural resources and institutions (e.g., Zhang and Daly, 2011; Kolstad and Wiig, 2012).

Factor analysis and multiple regression analysis

The test included eight independent variables among 11 variables for the factor analysis, excluding natural resources, labor-management relationship, and the dummy variable of strategic location. The Kaiser-Mayer-Olkin (KMO) value and Bartlett's sphericity test showed that the sample satisfied the requirement of factor analysis (KMO = 0.827, p-value = 0.000).

As shown in Table 6, there are two factors with eigenvalues larger than one. The Rotated Component Matrix showed the factor loadings for each variable. Based on these factor loadings, for all-country group, five variables including lnGDPP, lnINT, lnINST, lnMS, and lnPAT loaded strongly on factor 1, representing unconventional motivations. The other three variables (lnCHIPOP, lnEXTECH, and lnGDP) loaded strongly on factor 2, which are mostly conventional motivations. What is also interesting is that asset seeking of commercial technology is often accompanied by market (size)-seeking and network relations. However, the strategic-asset-seeking FDI of high (scientific) technology usually flows into advanced countries, with developed institutions, Internet infrastructure, and sophisticated consumer market. Therefore, factor 1 type of motivations is more likely to occur in developed countries, while factor 2 type of motivations can happen in both developed and developing countries.

Table 6. Rotated factor matrix

	Factor 1	Factor 2
lnGDPP	0.938	0.206
lnINT	0.902	0.208
lnINST	0.814	0.173
lnMS	0.764	0.478
lnPAT	0.649	0.636
lnCHIPOP	0.054	0.830
lnEXTECH	0.247	0.715
lnGDP	0.510	0.662
Eigenvalue	5.005	1.067
% of variance explained	62.566	13.335
Cumulative % of variance explained	62.566	75.901

By using the two factors as independent variables, this study ran the multiple regressions. More precisely, the estimated equation is constructed as follows:

$$\ln\text{OFDI}_i = \beta_0 + \beta_1\text{Factor1}_i + \beta_2\text{Factor2}_i + \gamma\text{CONT}_i + \varepsilon_i$$

The subscript *i* denotes the recipient of Chinese FDI. The dependent variable is logarithms of average outflows of three years (2010-2012). Table 7 shows the results when the above two new independent variables are put in one regression. Model 1 includes only control variables, and model 2 adds other explanatory variables. The significant increase in the adjusted R square of Model 2 compared to Model 1 shows the explanatory power of newly added factors and other independent variables. The study found that factor 1 consisting of all the unconventional motivations is significant at 5% and factor 2 representing the conventional motivations is significant at 1% level.

Table 7. Regression results

	Model 1 (all)		Model 2 (all)	
Factor 1			0.536	**
Factor 2			1.372	***
STRL			0.339	
lnINF	-0.002		1.221	***
lnDIS	-1.082	***	-0.351	
lnOPEN	0.494	**	0.449	*
N	79		78	
F value	4.678***		12.579***	
Adj. R ²	0.124		0.474	

Note: ***p<0.01, **p<0.05, *p<0.10

The results of hypotheses tests are reported in Table 8. Overall, except for Hypothesis 2 (cheap labor) which was not tested in this paper, among the 11 variables in the 9 hypotheses, eight variables in the five hypotheses were supported by the empirical test (H3, H4, H5, H6, and H7). However, this paper found no evidence for the other four variables of three hypotheses (H1, H9, and H10).

Table 8. Results of hypotheses tests

Hypotheses and number	Expected Sign	Result
lnNR (H1)	+	No support
lnPAT (H3)	+	Support
lnEXTECH (H3)	+	Support
lnGDP (H4)	+	Support
lnGDPP (H4)	+	Support
lnMS (H5)	+	Support
lnCHIPOP (H6)	+	Support
lnINT (H7)	+	Support
lnINST (H8)	+	Support
lnLMR (H9)	+	No support
STRL (H10)	+	No support

According to the UNCTAD (2006), developing country firms that seek created assets must first master the capabilities to absorb them, hence it is unlikely that created-asset-seeking will be the primary motivations for developing country MNCs. Song and Shin (2008) argued that not only the absolute but also the relative levels of technological capabilities of MNCs affect the likelihood of their knowledge outsourcing from host countries. They found that MNCs with moderate difference from host countries regarding technological capabilities will be more likely source knowledge from the host country than MNCs with much lower or much higher levels of technological capabilities. Therefore, the firm, from a country that is technologically far behind, is less likely to involve in the activity of sourcing knowledge from advanced countries.

However, it is interesting to note that in the Chinese cases, the created-asset-seeking or unconventional FDI appear at an early stage. In addition to the conventional motivations, the significance of the other unconventional motivations shows that Chinese FDI is not only constrained in the conventional type which exploits firm-specific advantage, but also follow the unconventional FDI (named strategic-asset-seeking) that addresses the competitive disadvantages and enhancement of the global competitiveness as a whole.

For the other variables in Model 2, strategic location displayed positive sign but without significance. This might be because of the two major offshore financial centers (British Virgin Islands and Cayman Islands) were eliminated from the data, while other tax haven or offshore financial centers in other countries in fact did not account for large

portion of Chinese OFDI. In addition, the insignificance of distance shows that Chinese OFDI is more likely to be affected by the psychological distance (or cultural proximity measured by $\ln\text{CHIPOP}$), and less on the physical distance. The FDI openness of host countries is significant with positive sign. Moreover, host country's inflation rates are significant with positive relationship with Chinese OFDI, this is because the inflation rate is the sign of growing economy if it is not very high.

This is difficult to explain using the traditional conventional FDI theory, because it only concerns the location advantages, not disadvantages. However, as shown in the Chinese resource-seeking FDI in the politically unstable countries, the distribution of host countries is in fact not simply determined by the location advantages, but by the balance between the location advantages and disadvantages. In other words, although there might be higher cost of investments in the politically unstable countries (e.g., Africa) compared to less risky countries (e.g., resource-rich advanced countries), the benefits gained from the investment are even larger. Therefore, Chinese firms choose those countries for investment location as long as the rents from investment exceeds the cost of investment. Thus, the key strategy of Chinese firms in enhancing competitiveness is to find a balanced combination of locational attributes in the diamond model (Moon, 2015a) (e.g., the balance between political risk and endowment of natural resources).

A similar logic is well defined in Moon and Roehl's (2001) imbalance theory, which argues that firms invest abroad and are motivated by the imbalances of firm resource portfolio (Moon, 2015a). However, this theory focuses more on the balance of advantages and disadvantages in terms of firms' ownership advantages, not the locational perspective. For example, emerging firms invest in the advanced countries not because of their ownership advantages, but the balance of ownership advantages and disadvantages. The Chinese case, however, suggested that it should be extended from finding the balances in firm resources (O) to location resources (L) to accurately explain the FDI phenomena in the real world, such as Chinese OFDI; the balance of advantages and disadvantages regarding ownership attributes, locational attributes, and internalization.

CONCLUSION

There are several existing studies on Chinese OFDI motivations. However, most of them are case studies. Although, recently there have been some empirical studies on the determinants of Chinese OFDI, they often look only at the part of the whole phenomenon. Investments from China have a variety of motivations, hence a more comprehensive

analysis is needed. For this purpose, this article introduced a more comprehensive framework for explaining Chinese OFDI. This framework not only incorporated the motivations mentioned by the existing studies, but also added two new ones: market-learning and labor-management relations. Various types of investments can now be succinctly contrasted in this new framework. At the basis, this study applied Moon and Roehl's (2001) concept of ownership imbalance of FDI determinants to locational imbalance (i.e., imbalance of location advantages and disadvantages).

Conventional FDI theories explain only downward investment motivations from more developed to less developed countries. However, this conventional approach explains only four out of ten motivations of this article. The other six are unconventional cases, related to the balance of ownership or location advantages and disadvantages as key motivations for going abroad. Therefore, there needs to be a new, more systematic theory which can integrate these two directions of investment, i.e., conventional and unconventional FDI. The Chinese cases are useful because they show different types of investments which are not well explained by the conventional theory of the West. The specifications of both conventional and unconventional motivations thus can help national governments to focus on developing different locational advantages in order to attract the investment from Chinese and other emerging firms.

In the empirical part, this study has found that both the conventional and unconventional motivations significantly affect Chinese OFDI. Existing empirical studies perceive each motivation separately. This paper, however, by utilizing the factor analysis and regression, conducted an empirical test to explain which motivations have more similar locational distributions, when Chinese firms engage in overseas investment. It is particularly interesting that Chinese MNCs also show some unconventional FDIs at their early stage. Specifically, the unconventional motivations for technology-seeking, market-learning, infrastructure-seeking, and regulation-bypassing FDI are significantly related to Chinese FDI in various types, depending on the development level of host countries.

This article has focused on the Chinese case because China is important not only for its large economic size, but also its dynamism and diversity of international activities. Notwithstanding, the analytical framework and empirical methodologies of this article can be applied to the study of other countries without much difficulty. This study can be extended further. Due to data constraints, this article could not investigate and compare the

motivations by industry. Since different industries may show different motivations of FDI, studies at the industrial level will also merit further examination.

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