# Inward Foreign Direct Investment, Entrepreneurial Behavior, and Outward Foreign Direct Investment: Evidence from China

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#### **Abstract**

As a leading foreign investor among all emerging countries, China has been developed to investigate in several studies by focusing on inward foreign or outward foreign investment, respectively. However, limit has been related to the relationship between Inward Foreign Direct Investment (IFDI) and Outward Foreign Direct Investment (OFDI), relying on the evidence from China. As the conditions and variables that characterized the IFDI and OFDI have been overhauled, a new framework is required to evaluate their relationship, relating the role of entrepreneurial characteristics. In this study, on the basis of the planned behavior theory, we investigate the relationship between IFDI, entrepreneurial behavior and OFDI in a structural contingency framework. Collecting China's panel data set of ten main industrial areas in the period from 2003 to 2012, we first develop the panel unit root tests and Hausman test for the panel data measures. Then, applying the Pooled Regression Model test, we secondly hypothesis and conclude that the IFDI is negatively related to OFDI in China. We also find evidence that OFDI is significantly influenced by the entrepreneurial behavior in China—outwards entrepreneurial behavior, "the index of entrepreneurs' confidence (EEI)" is negatively related to OFDI while the inwards entrepreneurial behavior, "the index of business condition (BCI)" is positively related to OFDI in China.

**Keywords:** inward foreign direct investment, outward foreign direct investment, entrepreneurial behavior, the index of entrepreneurs' confidence, the index of business condition

## 1. Introduction

As the emergence of China is nowadays regarded as a global economic powerhouse among business and policy circles in the world, many attentions on China's economic prowess have been focused on its sustained high economic growth of the last two decades. This high level of economic growth has been driven in part by massive inflows of foreign direct investment (IFDI) and by the rapid expansion of exports (Wang & Swain, 1997; Liu et al., 1997b; Liu et al., 2002), which are regarded as outward internationalization. However, in the recent decade, more attentions have been given to China's role as a source of outward foreign direct investment (OFDI) (Buckley et al., 2007; Luo, Xue & Han, 2010; Ramasamy, Yeung & Laforet, 2012). According to the Ministry of Commerce in 2012, China made direct overseas investments with a net value of US\$ 218.84 billion, over 200 times that of the year 2000. In 2010, China domestic investors made direct investment to 3,125 overseas companies in 129 countries and regions.

According to the theory developed of internationalization by Welch & Luostarinen (1988), internationalization is defined as "the process of increasing involvement in international operation" (p. 84), including both outward and inward international activities during the process. In terms of China' internationalization process, a stream of research dealing with its inward foreign direct investment (IFDI) since the 1980s and its outward foreign direct investment (OFDI) more recently (Luo, Xue & Han, 2010; Ramasamy, Yeung & Laforet, 2012).

Regarding China's IFDI process, existing research since the 1980s in this area falls into three trends: determinants of IFDI in China (Wang & Swain, 1997; Liu et al., 1997a); the effects of export trade and IFDI on growth (Wei, 1995; Woo, 1995; Wei et al., 2001); and, the relationship between IFDI and growth (Liu et al., 1997b; Shan & Sun, 1998). The third trend focuses on estimating the relationship between IFDI and China's growth. Liu et al. (1997b) and Shan & Sun (1998) find the in-directional relationship between trade and economic growth, implying that China's economic growth and trade reinforce each other. Liu et al. (2002) suggests that two-way causal connections exist between economic growth, IFDI and exports, with rather weaker

evidence of feedback from imports to the other three. However, these three trends on China's IFDI have appeared to be over-studied in the past decade, while one recent research area on China's outwards FDI (OFDI) attracted more studies' attentions (Buckley et al., 2007; Luo, Xue & Han, 2010; Ramasamy, Yeung & Laforet, 2012).

In terms of China's role as a leading foreign investor among all emerging countries, several studies have been developed to investigate three trends: the determinants of China's OFDI (Buckley et al., 2007; Ramasamy, Yeung & Laforet, 2012); the motivations for China investors to make OFDI (Deng, 2003); the relationship between OFDI promotion policies set by China's governments and the OFDI performance (Luo, Xue & Han, 2010). Buckley et al. (2007) find China's OFDI to be associated with high levels of political risk in and cultural proximity to. Ramasamy, Yeung & Laforet (2012) find that the determinants of China's OFDI differ based on firms' ownership. Deng (2003) identifies and discusses China's OFDI in five investment motivations: resource-seeking; technology-seeking; market-seeking; diversification-seeking and strategic asset-seeking. Luo, Xue & Han (2010) indicates a significant relationship between China's OFDI and governments promotions. However, the relationships between China's OFDI and other areas are seldom discussed in the latter research, such as the relationships between the entrepreneurial behavior and China's OFDI.

As Zhou (2007) studies from young international entrepreneurial firms in China, he explained the effects of entrepreneurial behavior on foreign market knowledge, which in turn related to the pace and performance of firms' early internationalization. However, limited existing literature has been focused on the effects of entrepreneurial behavior on China's OFDI, or the effects of China's IFDI on China's entrepreneurship.

Therefore, the contribution of this study is to examine the relationship between IFDI, entrepreneurial behavior and OFDI in China by using Pooled Regression Model test of Panel Data in a structural contingency framework. To address theoretical limitations, this study examines: (a) the main effect of IFDI on OFDI in China; (b) the mediating role of entrepreneurial behavior-"the index of entrepreneurs' confidence (EEI) and the index of business condition (BCI)", in the relationship between IFDI and OFDI in China; (c) two-way relationship between two measurements of entrepreneurial behavior in China: EEI and BCI.

## 2. Theory and Hypotheses

# 2.1 Entrepreneurial Behavior

For developing planned behavior theory on an entrepreneurial context, Shapero and Sokol (1982) were regarded as the original authors. Later, the implementation of this theory in entrepreneurship has been studied by numerous researches (Krueger, 1993; Krueger and Brazeal, 1994; Krueger and Carsrud, 1993; Krueger and Dickson, 1994; Krueger, Reilly and Carsrud, 2000). Their studies implied that perceived desirability and feasibility of an individual to create a business are based on his beliefs and propensities. More specifically, these beliefs and propensities are directly affected by the perceived desirability and feasibility of one's behavior, including his perceptions about the surrounding world (Gasse and Tremblay, 2011). These entrepreneurial beliefs and perceptions include perceived opportunity, confidence in one's abilities, fear of failure, and knowing other entrepreneurs (Arenius & Minniti, 2005).

Therefore, according to this theory, entrepreneurial behaviors are divided into two perspectives: "the index of entrepreneurs' confidence (EEI) and the index of business condition (BCI)" in this study, regarding entrepreneurial beliefs and perceptions about both outwards and inwards surrounding world (Gasse and Tremblay, 2011). On the basis of the Ministry of Commerce, the index of entrepreneurs' confidence (EEI) is referred as a gauge of views and opinions from Chinese entrepreneurs outside their enterprises on the China's domestic economy among industries. While the index of business condition (BCI) is regarded as a gauge of views and opinions from Chinese entrepreneurs inside their enterprises' business performance among industries. When EEI explains the entrepreneurial beliefs on industrial market conditions in China, BCI shows entrepreneurs' beliefs on their enterprises' business conditions among industries.

# 2.2 Inward Foreign Direct Investment (IFDI) and Outward Foreign Direct Investment (OFDI)

Many existing literature have suggested that there is a positive relationship between IFDI and economic growth in China. Dees (1998) concludes that IFDI has a positive effect on China's economic growth through its impacts on technical change. Liu et al. (1997b) and Shan & Sun (1998) find the in-directional relationship between IFDI, trade and economic growth, implying that China's economic growth and IFDI reinforce each other. On the other hand, other recent studies also indicate that endogenous factors (i.e., entrepreneurial behavior and domestic economic growth) affect the OFDI in China (Deng, 2003). Deng (2003) and Deng (2007) argue that a specified volume of asset should be accumulated before OFDI process. The majority of China's OFDI investors follow the

traditional internationalization pattern, in other words, OFDI is highly related to the domestic markets success and original capital accumulations (Cheung & Qian, 2009).

As a case for the majority of developed countries, the investment development path can be used to describe how a country's IFDI follows the development of the incomes of the population. The increase of a country's per capita incomes attracts IFDI, and the country is successively moving towards engaging in outward FDI itself (Ramamurti, 2012). The period of IFDI in China has been long history since 1980s, and the majority of studies on China's IFDI was developed in the IFDI prosperous period (1990s-2000s), resulting in a significantly relationships on China's economy. With the benefits of IFDI, China has been developing for about three decades after that, and thus capital assets have been accumulated and further development strategies push China to move globalization (Ramamurti, 2012). Nowadays, China is experiencing at the mid-late of this period, and the IFDI data shows a decreasing trend in the recent ten years while OFDI shows an increasing growth in this period. Therefore, this study argues that in the recent ten years, China's OFDI will be negatively related by IFDI.

Hypothesis 1: Inward foreign direct investment (IFDI) is negatively related to outward foreign direct investment (OFDI).

## 2.3 Entrepreneurial Behavior and Outward Foreign Direct Investment (OFDI)

Limited studies have linked entrepreneurial behavior with China's IFDI or OFDI, while three research deal somewhat indirectly with the idea of such relationship. Zhou (2007) explained the effects of entrepreneurial behavior on foreign market knowledge, which in turn related to the pace and performance of firms' early internationalization in China. Deng (2007) argues that when investing in advanced economies, Chinese multinational corporations (MNCs) are motivated by the quest for strategic resources and capabilities, emphasizing a firm's strategic needs in the process of its OFDI, while companies' strategies highly relate to their decision-making groups-that is, their entrepreneurs. Hong & Sun (2006) indicate that China's OFDI has been highly encouraged by both the particularistic policies of the government and active responses of enterprises to the challenges and opportunities offered by globalization. Thus, this study argues that beliefs of entrepreneurs on internationalization are related to outward foreign direct investment (OFDI).

According to Deng (2003; 2007), Chinese outward investors are seeking resource, technology, market, diversification and strategic assets overseas, which could benefit their enterprises' competition advantages. When China's investors decided for ODFI, China's domestic resource assets were predicted as mismatched for their development strategies. These unsatisfied demands of resources pushed China's investors to develop OFDI strategies for overseas resources seeking (Deng, 2007). As EEI relates to China's domestic markets viewing, a low level of EEI may result from the disappointed views and opinions of entrepreneurs on China's market conditions, which in turn push the entrepreneurs to take a globalization viewings and higher level of OFDI. While BCI is referred as Chinese entrepreneurs' opinions on firm performance, a high BCI may lead to better firm performance and larger amount of capitals, and then link to higher level of OFDI. Therefore, unlike BCI which is argued to be positively related to OFDI, EEI is predicted to be negatively related to OFDI in this study, representing two-way entrepreneurial behavior in China.

Hypothesis 2a: The index of entrepreneurs' confidence (EEI) is negatively related to outward foreign direct investment (OFDI).

Hypothesis 2b: The index of business condition (BCI) is positively related to outward foreign direct investment (OFDI).

# 2.4 The Mediating Role of Entrepreneurial Behavior

The majority of research focus on the relationship between IFDI and China's economic growth, while some studies find other spill-over effects from IFDI on China's domestic firms. Buckley, Clegg & Wang (2002) find that IFDI generated both technological and international market access spill-over benefits for Chinese firms. Cheung & Lin (2004) suggest that IFDI can benefit innovation activity in the host country via spill-over channels such as reverse engineering, skilled labour turnovers, demonstration effects, and supplier-customer relationships. This innovation activity in China also influenced firms' tangible productive assets, including technological knowhow, marketing and managing skills, and globalization (Hu & Jefferson, 2002), which in turn lead to innovation effects on entrepreneurs. Foreign market knowledge and globalization viewings can be resulted from these innovation effects from IFDI on China's entrepreneurs, affecting the entrepreneurial behavior to the challenges and opportunities offered by globalization.

This study contends that IFDI is positively related to entrepreneurial behavior in China. As discussed above, this study also argues that beliefs of entrepreneurs on internationalization are positively related to OFDI. Therefore,

the relationship from IFDI to OFDI is argued to be in-direct, which is mediating by the effects of entrepreneurial behavior. In other words, the above argument suggests that IFDI contributes to entrepreneurial behavior, which in turn contributes to OFDI in China.

Hypothesis 3a: The index of entrepreneurs' confidence (EEI) mediates the relationship between Inward foreign direct investment (IFDI) and outward foreign direct investment (OFDI).

Hypothesis 3b: The index of business condition (BCI) mediates the relationship between Inward foreign direct investment (IFDI) and outward foreign direct investment (OFDI).

#### 3. Method

#### 3.1 Data Set

As the research's of this study are to test the relationships between IFDI, entrepreneurial behavior and OFDI in China, we employed panel data (time-series and cross-sectional data) and related these three perspectives. As this study is China-regional orientation, data were collected from CEIC China Premium Database, which is regarded as a leading economic time-series database focusing exclusively on the Chinese market that contains historical data dating back to 1949. With regional and industry data on China, CEIC database is systematically organized into 4 sections: macroeconomic, sector, regional and special topics databases, with 293,000 time-series data available for analysis. Furthermore, according to the National Bureau of Statistics, in the CEIE database, China's industries were catalogued into 10 main industrial areas: Mining, Manufacturing, Electricity, Gas & Water Production and Supply (EG), Electricity, Heat Production & Supply, Gas Production & Supply, Water Production & Supply, Construction, Transport, Storage and Postal Service (TS), Information Transmission, Computer & Software, Wholesale and Retail Trade (WR), Accommodation and Catering Trade, Real Estate, and Social Service. We have chosen these 10 industrial areas for the recent 10 years from 2003 to 2012 from the CEIC database as our sample because the data before this period are not available. Thus, the number of sample in this study was collected to be 10\*10 as panel data (time-series and cross-sectional data), and we argued that the sample can represent the majority of China's industrial characteristics.

### 3.2 Measures

To test our hypotheses, three independent variables are designed as IFDI, EEI and BCI, while dependent variable is defined as OFDI in China. Three related control variables were also applied in this study: Average Wage (AW) in China's labour market; China's Gross Domestic Product (GDP); and, China's domestic Fixed Asset Investment (FAI). FAI refers to investment in fixed capital or to the replacement of depreciated fixed capital. The data of these seven variables were all collected among selected 10 industrial areas in the period from 2003 to 2012.

## 3.3 Panel Unit Root Test

As panel data (time-series and cross-sectional data) were employed in this study, panel unit root tests were applied among those seven variables before regressions to test for the presence of unit roots. For purposes of testing, there are two natural assumptions: one assumes common unit root process (i.e., Levin, Lin & Chu, 2002); and the other one assumes individual unit root process (i.e., Maddala & Wu, 1999; Breitung, 2000; Hadri, 2000; Choi, 2001; Im, Pesaran & Shin, 2003; and Carrion-i-Silvestre et al., 2005). Thus, both Levin, Lin & Chu (2002, LLC) test for representing common unit root process assumptions, and Fisher-PP test which defined by Maddala & Wu (1999) and Choi (2001) for representing individual unit root process assumptions, are examined in this study. The LLC (2002) test.

$$\Delta y_{u} = \delta y_{(u-1)} + \sum_{L=1}^{P_{i}} \theta_{iL} \Delta y_{u-L} + \alpha_{mi} d_{mt} + \varepsilon_{it}, \quad m = 1,2,3.$$
 (1)

is based on this model in equation (1), where  $d_{mt}$  denotes the deterministic components, and  $\epsilon_{it}$  is assumed to be independently distributed across i and t, with i=1,...,N and t=1,...,T. Here,  $\delta$  is error correction term and when  $\delta < 0$  and  $\alpha_{1i} \in R$ , for all i, happens; we understand that the series is trend stationary, conversely when  $\delta=0$  and  $\alpha_{1i}=0$  happens, it has unit root, therefore it is not stationary. The LLC test enables the  $\delta$  to differentiate for the cross section units, in other words the heterogeneous panel structure. Test hypotheses:

 $H_0$ :  $\delta=0$  and  $\alpha_{1i}=0$ , for all i, for all the cross section units, so the series is not stationary.

 $H_1$ :  $\delta < 0$  and  $\alpha_{1i} \in R$ , for all i, for at least one cross section unit, so the series is stationary.

When the probability value obtained from the test results is smaller than 0.05,  $H_0$  is rejected and it is decided that the series is stationary. The LLC panel unit root test results are presented in Table 1. The results in Table 1 show that the hypothesis that five variables: FAI, IFDI, EEI, BCI and OFDI, except AW, contain a unit root is rejected at the 5% significant level in all tests, suggesting that these five variables in our study are I (0).

Second, with the assumption of cross-sectional independence, the Fisher-PP panel unit root tests used Fisher's (1932) results to derive tests that combine the p-values from individual unit root tests. If we define  $\pi_i$  (i = 1,2,...,N) as the p-value from the i-th individual unit root test and equation (2) has a  $\chi^2_{2N}$ .

$$P = -2\sum_{i=1}^{N} \log(\pi_i) \tag{2}$$

is distributed. And for large N samples,  $\phi^{-1}(\pi_i)$  is distributed as N (0, 1). Here  $\phi^{-1}$  is the inverse of the standard normal cumulative distribution function.

$$Z = \frac{1}{\sqrt{N}} \sum_{i=1}^{N} \phi^{-1}(\pi_i)$$
 (3)

is distributed as N (0, 1). Here, if we consider the P test at a 5% significant level, the series is trend stationary, and then we reject the unit root for the variables. The results in Table 1 show that the GDP variables contain a unit root, is accepted at the 5% significant level. Thus, we log AW and GDP into LNAW and LNGDP, which result as I(0) without a unit root. These results imply that to investigate the relationships between IFDI, EEI, BCI and OFDI can be tested through panel causality tests.

Table 1. Results of panel unit root tests

Variables	LLC	Fisher-PP	
AW	-0.88 (0.1893)	42.69** (0.0022)	
GDP	-2.86* (0.0021)	26.33 (0.1553)	
FAI	-6.79*** (0.0000)	86.31*** (0.0000)	
IFDI	-3.57*** (0.0002)	37.59** (0.0099)	
EEI	-5.76*** (0.0000)	65.49*** (0.0000)	
BCI	-7.30*** (0.0000)	81.71*** (0.0000)	
OFDI	-4.65*** (0.0000)	40.35** (0.0045)	
LNAW	-2.84** (0.0022)	65.17*** (0.0000)	
LNGDP	-3.32*** (0.0004)	30.98* (0.0554)	

*Note.* n = 100; \*p < .05. \*\*p < .01. \*\*\*p < .001.

## 3.4 Data Analysis

There are many different models that can be used for panel data. The basic distinction between them, according to Greene (2011), is the existence of fixed or random effects. The fixed effect (FE) model deals with unobserved heterogeneity by using unit-specific intercepts (Greene, 2011). The FE model can be written as:

$$Y_{it} = b_1 X_{it1} + b_2 X_{it2} + \dots + b_k X_{itk} + \alpha_i + u_{it}, \ t = 1, 2, \dots, T.$$
 (4)

Where  $\alpha_i$  is fixed over time and allowed to be correlated with explanatory variables while  $u_{it}$  should be uncorrelated with each explanatory variable across all time periods. The FE model can be estimated based on a full set of unit dummy variables or by mean-centering the dependent variable and all the explanatory variables to "clear" cross-unit heterogeneity (Allison, 2009). Furthermore, the FE model controls for cross-unit heterogeneity that is not captured by the conditional mean,  $b_k X_{itk}$ .

When we assume that  $\alpha_i$  is uncorrelated with each explanatory variable, the equation (5) becomes random effect (RE) model:

$$Y_{it} = b_1 X_{it1} + b_2 X_{it2} + \dots + b_k X_{itk} + V_{it}, \ t = 1, 2, \dots, T.$$
 (5)

Where the composite error term  $V_{it}$ = $\alpha_i$  +  $u_{it}$ .  $\alpha_i$  is in the composite error in each time period, the  $V_{it}$  are serially correlated across time (Wooldridge, 2007). In terms of a large N, the RE model is uncorrelated with the regressors, being more efficient than the FE model. Additionally, with the increasing of the number of cross-section units (N), the estimation efficiency increases. Furthermore, for the state-level panel data example, the RE model based on equation (5) will have more degrees of freedom than the FE model based on equation (4), because the FE model does not estimate state-specific intercepts. However, when the random intercept  $u_{it}$  is correlated with  $X_{itk}$ , the RE model could produce inconsistent estimation. Therefore, it is critical to consider which effect (i.e., FE or RE) model is more efficient and can be applied in our study.

The Hausman test was conducted to differentiate between FE model and RE model for panel data in this study (Durbin, 1954; Wu, 1973; Hausman, 1978).

H<sub>0</sub>: Cov (No endogeneity problem).

H<sub>1</sub>: Cov (An endogeneity problem).

Here, when the p-value of obtained from the analysis is smaller than 0.05,  $H_0$  is rejected and it is decided that there is an endogeneity problem in the model. In this case, the FE model is applied (Greene, 2011). However, when  $H_0$  is accepted, the RE model is used. In other words, in the generalized linear models (GLS), RE model is preferred under the null hypothesis due to higher efficiency, while under the alternative FE model is at least consistent and thus preferred.

The results in Table 2 show that except Model 1, all models accept the null hypothesis at the 5% significant level in Hausman test, suggesting that these six models in our study are preferred RE model. While Model 1 rejects the null hypothesis at the 5% significant level in Hausman test, preferring FE model in this study.

Table 2. Results of hausman test

Model	$\chi^2$	$\Delta \chi^2$	df	$\mathbb{R}^2$	$\Delta R^2$	ΔF
1. LNAW + LNGDP + FAI (Control Variables)→OFDI	19.96***		3	0.54		
2. Control Variables + IFDI→OFDI	7.22	12.74***	4	0.68	0.14	2.34***
3. Control Variables→EEI	0.60		3	0.39		
4. Control Variables + IFDI→EEI	2.98	2.38*	4	0.42	0.03	0.08***
5. Control Variables→BCI	0.97		3	0.37		
6. Control Variables + IFDI→BCI	3.31	2.34*	4	0.34	0.03	0.89***
7. Control Variables + IFDI + EEI + BCI→OFDI	6.49	13.47*	6	0.75	0.21	8.11***

Note. n = 100; \*p < .05. \*\*p < .01. \*\*\*p < .001.

## 4. Results

Tables 3 shows regression results for the main effect of inward foreign direct investment (IFDI) on outward foreign direct investment (OFDI), and the mediated effects of entrepreneurial behavior (EEI & BCI) on OFDI. Firstly, OFDI is regressed on the controls and IFDI. The results show that IFDI is negatively related to OFDI in China ( $\beta$ =-0.95, p < .001). This effect accounts for significant variance in OFDI ( $\Delta$ R2 = 0.09, p < .01;  $\Delta$ F = 27.28, p < .001). As the results show a negative relationship between IFDI and OFDI, Hypothesis 1 is supported in this study.

Furthermore, EEI and BCI are regressed respectively on the controls and IFDI. The results show that IFDI is negatively related to EEI and BCI in China ( $\beta$ =-2.81, p < .05;  $\beta$ =-1.00, p > .05). The effect of IFDI on EEI accounts for significant variance ( $\Delta$ R2 = 0.07;  $\Delta$ F = 0.61, p < .001), while the effect of IFDI on BCI results in non-significant variance ( $\Delta$ R2 = 0.05;  $\Delta$ F = 0.08, p < .001). As IFDI is not significantly related to BCI, Hypothesis 3b predicting the mediated effect of BCI between IFDI and OFDI is not supported in this study.

Finally, OFDI is regressed respectively on the controls, IFDI, EEI and BCI. The results show that IFDI and EEI are negatively related to OFDI in China ( $\beta$ =-1.11, p < .001;  $\beta$ =-0.12, p > .001), while BCI is positively related to OFDI ( $\beta$ =0.16, p < .001). Their effects account for significant variance in OFDI, respectively ( $\Delta$ R2 = 0.21, p < .001;  $\Delta$ F = 34.37, p < .001). Therefore, Hypotheses 2a and 2b are supported, which argue that EEI in a negatively relationship and BCI in a positively relationship with OFDI. As all three relationships-"IFDI and OFDI; IFDI and EEI; IFDI, EEI and OFDI", have significant variance, Hypothesis 3a is also supported in this study, suggesting EEI partially mediates the relationship between IFDI and OFDI.

Table 3. Results of regression analysis of inward foreign direct investment (IFDI) and entrepreneurial behavior (EEI & BCI) on outward foreign direct investment (OFDI)

Independent Variable	OFDI		EEI	EEI		BCI		OFDI	
	ΔF	β	$\Delta F$	β	ΔF	β	ΔF	β	
Step1: Controls									
LNAW		4.26*		62.37**		41.93*		4.04*	
LNGDP		58.52***		29.57		47.13		53.06***	
FAI		0.68***		-2.80*		-3.93**		0.98***	
Step 2: IFDI		-0.95***		-2.81*		-1.00		-1.11***	
Step 3: EEI								-0.12***	
Step 4: BCI								0.16***	
	27.28***		0.61***		0.08***		34.37***		

*Note.* n = 100; \*p < .05. \*\*p < .01. \*\*\*p < .001.

#### 5. Discussion

Using a contingent view of the inward foreign direct investment (IFDI)-outward foreign direct investment (OFDI) relationship in China, this study examines the mediation process of the entrepreneurial behavior (EEI & BCI) on this relationship. The study yields several empirical findings. Firstly, the results suggest that IFDI is negatively related to OFDI in China. Secondly, the results support our contentions that EEI is negatively related to OFDI while BCI is positively related to OFDI in China. Furthermore, the hypothesis that EEI partially mediates the relationship between IFDI and OFDI is also supported. Thirdly, the results point out that IFDI has negative effects on EEI and OFDI, suggesting arguments for the previous research.

The findings of the study have several theoretical implications. Firstly, adopting a structural contingency perspective, the study extends the research on the mechanism through which entrepreneurial behavior (EEI & BCI) affect OFDI. Previous research reports the determinants on China's OFDI, focusing on the policies of the government and firms' strategies (Luo, Xue & Han, 2010; Hong & Sun, 2006; Deng, 2007). By employing EEI as a mediator and focusing on entrepreneurial behavior, our findings suggest that IFDI has a negatively relationship with EEI, which in turn relates to OFDI in China. As EEI relates to China's domestic market viewings, a low EEI may result from dissatisfactions on China's market conditions, which in turn push the entrepreneurs to seek opportunities outdoors and then lead to a higher level of OFDI. Furthermore, our findings also suggest the positively relationship between BCI and OFDI. Differently from EEI, BCI is referred as Chinese entrepreneurs' business confidents on firm performance, a higher BCI may lead to better firm performance and larger amount of capitals, and then link to more aggressive on market expansion and market-seeking motivations, relating to growth of OFDI.

Secondly, the research extends what is known about China's IFDI. While many previous studies in 1990s-2000s suggest that IFDI has a positive effect on China's economic growth (Liu et al., 1997b; Shan & Sun, 1998; Dees, 1998), our findings argue for a negatively relationship from IFDI on EEI. Similarly with Hypothesis 1's argument, China is experienced at the mid-late period of IFDI, and then outward capital assets become less attracted for domestic firms' developments (Ramamurti, 2012). In the recent decade, China's market developments result from fewer effects of IFDI, which being different from the findings of previous studies. Entrepreneurs have taken fewer considerations from IFDI in decision-making process of their individual enterprises, as foreign capital assets have no longer been the primary factor determining firms' further development (Deng, 2003). Therefore, the effect from IFDI on BCI is showed as non-significant in this study.

On the other hand, the negatively relationships from IFDI on EEI and OFDI can also be explained by the dynamic of government policies, as many existing literature suggest the determinants of the policies of the government on IFDI and OFDI in China (Luo, Xue & Han, 2010; Hong & Sun, 2006; Wei, 1995). Benefited from the "Open Door Policy" which was initiated in 1978 to open up China to foreign businesses for attracting IFDI, China has developed for about four decades (Wei, 1995), and then enters into a mid-late period of IFDI in recent decade. While the "Go Out Policy" was initiated in 1999 by the Chinese government to promote Chinese investments abroad, OFDI has increasing significantly in the recent 10 years (Luo, Xue & Han, 2010). Thus, less

effects of IFDI on China's market growth nowadays is suggested in this study, and lead to negatively relationships on EEI and OFDI.

The results of this study also have managerial implications. The effects of entrepreneurial behavior should be taken into consideration when OFDI decisions are made by organizations. Governments' promotions on OFDI should also be related to the entrepreneurial characteristics, as OFDI is encouraged by active responses of enterprises to the challenges and opportunities offered by globalization (Hong & Sun, 2006) and better business conditions. By promoting the "Go Out Policy", government should pay more attentions on helping entrepreneurs to develop more beliefs on domestic business conditions (higher level of BCI), and more active responses of entrepreneurs' globalized viewings to the challenges, opportunities and risk-taking.

An important area for further research is to continue the investigation of the effects of entrepreneurial behavior on China's internationalization. For example, three suggested perspectives research on entrepreneurial behavior: beliefs, risk-taking and innovativeness (Zhou, 2007), can be developed by measuring data for more details through questionnaires and interviews, instead of data from Databases. While this study limits from the relatively short-term period (2013-2012) of samples available. Furthermore, the availability of GEM and other statistic methods can be further developed onto panel data, such as the application of Confirmatory factor analysis (CFA) for examining the distinctiveness of variables to avoid multi-collinearity.

#### 6. Conclusion

The study extends research on the relationship between inward foreign direct investment (IFDI) and outward foreign direct investment (OFDI) in China through examining the mediation process in this relationship. This study reveals that the index of entrepreneurs' confidence (EEI) partially mediates the relationship between IFDI and OFDI in China. The result of the study provides new insight into the mechanisms through to what extent IFDI affects China's entrepreneurship, and how entrepreneurial behavior affects OFDI in China.

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