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Corporate Governance Determinants of FII in Indian IT firms

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Abstract

The objective of this study is to investigate the impact of corporate governance characteristics on foreign investments in the Indian IT industry.

Foreign capital is important for industries in an emerging economy as it bridges the gap between investment requirements and the domestically available capital. Prior research has shown that corporate governance characteristics of a firm can influence the FII inflow into it.

The sample for this study consists of 113 firms from the Indian IT industry spanning 9 years from 2005 to 2013. The Indian IT industry was chosen as the setting for this study due to the increasing levels of FII inflow to these companies and because IT companies are among the pioneers in the formulation and implementation of corporate governance regulation in India. The ownership pattern of a firm, measured through parameters like its promoter shareholdings, and the corporate governance characteristics as indicated by the total number of directors in the board are analyzed to understand their impact on inflow of FII to the firms. A fixed effect regression was run on the sample and the results were analyzed.

The results show that firms with more concentrated promoter holdings have lower levels of foreign investments. Larger board size seems to attract higher levels of foreign investments. However, the number of independent members on board and the board chairman being independent have been found to be insignificant in determining FII inflow to a firm. Higher market capitalization and profitability help in attracting foreign investments. These results suggest the need for a strong current level of performance before inviting international investments for fund raising and also hints at a convergence in corporate governance of Indian IT firms towards the Anglo-Saxon system of corporate governance.

Key Words: FII, Corporate governance, ownership patterns, board characteristics, Indian IT industry
Introduction

Foreign capital is important for industries in an emerging economy as it bridges the gap between investment requirements and the domestically available capital (Lakshmi, 2011). Sami, Wang and Zhou (2009) have shown that foreign capital has a positive impact on profitability ratios like ROA, ROE and Tobin-Q value. Studies also show that firms with a significant level of foreign investment show higher levels of performance as compared to firms owned solely by domestic promoters (Chincholkar, 2010). Foreign capital is found to play an increasingly important role in the rapid industrial and economic development around the world (Banerjee, 2013). Hence identifying the determinants of foreign investments at a firm level is important.

Corporate governance in an organization is found to have a strong impact on the level of foreign investment in the firm. One reason that Das (2014) suggests is that while investing abroad, an investing company would face information asymmetries and corporate governance is an easy replacement for expensive information collection process. An IFC Survey on corporate governance also identifies firm level corporate governance characteristics as major determinants of foreign investments (Khanna and Zyla, 2010). Ferreira and Matos (2008) conclude that foreign institutional investors have a strong bias for large firms, firms that are members of world index, firms cross-listed on a U.S. stock exchange and firms with low insider ownership. Other studies also have shown a positive relation between corporate governance characteristics and foreign investments (Aggarwal, Klapper, and Wysocki, 2005; Leuz, Lins and Warnock, 2010).

The objective of this study is to investigate the impact of corporate governance characteristics on foreign ownership. The setting for our study is the Indian IT industry. A literature review has helped us identify that corporate governance characteristics such as proportion of shares held by promoters, total number of directors in the board, proportion of independent directors in board and the impact of having an independent director as the chairman of the board could be important in determining foreign investments in firms. The findings of our study indicate that firms with more concentrated promoter holdings have lower levels of foreign investments. Except the total number of board members, other measures of corporate governance including the number of independent members on board, and the chairman being an independent board member have been found to be insignificant in attracting foreign investments to a firm. In fact, the evidence point to the possibility of higher board independence dampening the inflow of
FIIs. The current financial performance of a firm has been found to have a strong association with the level of foreign investments that it garners, and thus a strong current performance is a pre-requisite for attracting foreign capital.

**Literature Review**

Several studies have previously looked at the relation between foreign investment and corporate governance characteristics in the context of different countries. While some of these studies concentrate in a sample of firms in a single nation, the others have a multi-country sample set.

Ferreira and Matos (2008) analyzed the firm level and country level corporate governance characteristics that influence the foreign institutional investments on a sample that consisted of firms from 27 different countries. Their study concluded that the corporate governance characteristics of a firm including cross-listing in the U.S., membership in International indexes, and high global visibility through high foreign sales or analyst coverage influence the institutional decision to invest in a firm.

Leuz, Lins and Warnock (2010) attempted to understand the factors that influence foreign investment in firms based on a sample of 4,409 firms from 29 countries. They concluded that foreigners invest less in firms that reside in countries with poor outsider protection and disclosure and have ownership structures that are conducive to governance problems, consistent with the notion that foreign investors prefer firms with strong corporate governance standards.

The investment allocation choices of actively-managed US mutual funds in emerging market equities was studied by Aggarwal, Klapper and Wysocki (2005). This study established that at the country level, US funds invest more in open emerging markets with stronger accounting standards, shareholder rights, and legal frameworks and at the firm level, in firms that adopt discretionary policies such as greater accounting transparency and the issuance of an ADR.

Mangena and Tauringana (2007) investigated the association between firm level disclosure and corporate governance structure in Zimbabwe. They found that disclosure, proportion of non-executive members, institutional share of ownership and audit committee independence are positively related to share of foreign ownership. The results are thus consistent with the notion that foreign investors are attracted to companies with effective corporate governance structures, low information asymmetry and strong cash positions.
Min and Bowman (2012) undertook a similar study based in Korea. The intent of the study was to see if appointment of independent directors in the board of Korean companies, which was stipulated by the Korean government after the 1997 financial crisis, had any significant impact on the level of foreign investments in the companies. The results showed that foreign investors placed considerable value on the appointment of independent directors.

With a sample of Japanese firms, Desender, Aguilera and Crespi (2013) studied the patterns of foreign investments and corporate governance structure. Board independence and the board audit committee characteristics were the features of the board studied and it was found that the board independence, board of corporate auditors’ independence and the presence of an external auditor are ensured when foreign ownership is high, while this is absent when foreign ownership is low.

Another study was undertaken in the Indonesian context by Chevalier, Prasetyantoko and Rokhim (2006) to understand if foreign ownership participation is affected by corporate governance practices. The proxy for corporate governance practice in this study was a firm’s capital structure choice. The study has found that MNCs have more prudent financing structure, meaning rather than going for short-term financing policies which ignore other financing options MNCs will have more professional management of their financing policies.

Ananchotikul (2006) has tried to study if foreign investment is an effective tool in improving corporate governance practices in Thailand. The paper questions conventional wisdom and proves that when a foreign company buys large stakes, there is no improvement in corporate governance practices because they act as insiders and having a weak corporate governance structure suits them more. This is one of the few studies reviewed which shows a negative relationship between the accepted corporate governance best-practices and foreign investments.

Bokpin and Isshaq (2009) studied the foreign ownership patterns and corporate governance disclosure practices in Ghana. Their research is rooted on the argument that better disclosure practices ensure greater transparency which makes a firm more attractive for foreign investments. The results indicate a statistically strong relation between foreign investments and the level of firm disclosure.
Table 1. Literature Review of CG and Foreign Investment relations

<table>
<thead>
<tr>
<th>Authors</th>
<th>CG and Foreign Investment Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferreira and Matos (2008)</td>
<td>Cross-listing in the U.S., membership in International indexes, and high global visibility through high foreign sales or analyst coverage influence the institutional decision to invest in a firm.</td>
</tr>
<tr>
<td>Leuz, Lins and Warnock (2010)</td>
<td>Foreigners invest less in firms that reside in countries with poor outsider protection and disclosure and have ownership structures that are conducive to governance problems.</td>
</tr>
<tr>
<td>Aggarwal, Klapper, and Wysocki (2005)</td>
<td>Firms that adopt discretionary policies such as greater accounting transparency and the issuance of an ADR are preferred by foreign investors</td>
</tr>
<tr>
<td>Mangena and Tauringana (2007)</td>
<td>Disclosure, proportion of non-executive members, institutional share of ownership and audit committee independence are positively related to the share of foreign investment</td>
</tr>
<tr>
<td>Min and Bowman (2012)</td>
<td>Foreign investors place considerable value on the appointment of independent directors.</td>
</tr>
<tr>
<td>Desender, Aguilera and Crespi. (2013)</td>
<td>Board independence, board of corporate auditors’ independence and the presence of an external auditor are ensured when foreign investment is high</td>
</tr>
<tr>
<td>Ananchotikul (2006)</td>
<td>When a foreign company buys large stakes, there is no improvement in corporate governance practices because they act as insiders and having a weak corporate governance structure suits them more. <em>(Negative relationship between board independence and foreign investments)</em></td>
</tr>
<tr>
<td>Bokpin and Isshaq (2009)</td>
<td>Better disclosure practices ensure greater transparency which makes a firm more attractive for foreign investments</td>
</tr>
</tbody>
</table>
**FII in India and the Indian IT Industry**

The attractiveness of developing nations as a destination for foreign capital has increased, due to the high likelihood of obtaining robust returns and also due to the decreasing attractiveness of developed nations (Haldar and Rao, 2012). India is an appropriate example to understand this phenomena. However, to the best of our knowledge, there have been no notable studies in India regarding the FII inflow determinants. This study aims to fill the gap.

There has been significant increase in FII into India after a dip in 2006-2007 in the midst of a global recession, reaching a peak in 2014 (see Figure 1). A major contribution of this FII has been into the Indian IT industry.

*Figure 1. FII inflow to India, 2002-2014 (Indiastat)*

The Indian IT industry has gained a brand of its own in the international market. IT-ITES industry in India has two major components, IT services and Business Process Outsourcing. The growth in the service sector in India has been led by the IT–ITES sector, contributing substantially to increase in GDP, employment, and exports. The sector has increased its contribution to India's GDP from 1.2% in FY1998 to 7.5% in FY2012 (Nasscom). In the year 2014, the industry has recorded a revenue of USD 114 billion as against USD 9 billion in 2009 (Nasscom). The other contributions of the industry towards the Indian economy can be briefly identified as below.
Table 2. Role of IT industry in the Indian economy (Nasscom)

<table>
<thead>
<tr>
<th>Relative industry share in the GDP</th>
<th>8.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment offered</td>
<td>3.1mn (Largest private sector employment)</td>
</tr>
<tr>
<td>Women employment</td>
<td>&gt;1mn (38% of total employees are women)</td>
</tr>
<tr>
<td>Private Equity/ Venture Capital investments</td>
<td>$ 2.4bn (Industry with the highest investments)</td>
</tr>
<tr>
<td>Net value add</td>
<td>60-70% (Highest net value add sector)</td>
</tr>
<tr>
<td>Service exports</td>
<td>38% (Highest share of service exports)</td>
</tr>
<tr>
<td>IT-SEZ in Tier 2-3 cities</td>
<td>99 (Promoting balanced regional growth)</td>
</tr>
</tbody>
</table>

The relatively high contribution of the IT industry to the Indian economy is visible from the above details.

While the global macroeconomic scenario remained uncertain, the IT industry exhibited resilience and adaptability in continually reinventing itself to retain its appeal to clients (Nasscom). Software firms are more exposed to global competition as compared to other industries in India (Khanna and Palepu, 2007) and hence needs to follow competent standards of corporate governance to attract business and investment. As in December 2014, IT sector in India has an annual FII inflow of INR 27222.2 million, making it the second largest recipient of FII after financial sectors (CDSL India, 2014). Figure 2 demonstrates the levels of FII in the Indian IT industry in the recent years.
With the increasing levels of foreign investments in this industry (Indiastat) IT industry offers a suitable ground for understanding determinants of foreign investments in Indian firms.

This study specifically looks at those firms which belong to the IT-ITES category of Indian IT sector and has not included firms in the Business Process Enabling.

**Theory building and hypothesis**

Agency theory is the most recognized theory in corporate governance research (Zahra and Pearce, 1989; Jensen, 1985). According to agency theory, the managers are opportunistic and self-interested and hence need to be kept under control by monitoring mechanisms or by incentive alignment (Jensen and Meckling, 1976).

*Promoter’s share holding*

As per Indian Companies Act of 1956 (Ministry of Corporate Affairs, 2014) promoter means a person who has been named so in a prospectus or is identified by the company in the annual return referred to in section 92, has control over the affairs of the company, directly or indirectly and in accordance with whose advice, directions or instructions the Board of Directors of the company is accustomed to act.

IT industry is an industry in India that has persistently high concentrated ownerships with promoters or family owners, yet which has the least advantages of concentrated ownership
while accessing capital or talent through the international market (Khanna and Palepu, 2007). According to the authors, the IT industry, due to its low capital requirements, little government regulation on entry, and a relatively low level of minimum economic scale to achieve profitability and the abundance of talented professional who showed no preferences to family or group owned IT companies, ensures competent performance by entrepreneur owned firms also.

Previous studies have shown that promoter’s share holdings are inversely related to foreign investments (Lakshmi, 2011). Yin-Hua and Woidtke (2005) argue that investor protection is weak in companies with boards dominated by members affiliated to the controlling family, which in-turn attracts lower levels of investment by foreign investors. Byun, Hwang and Lee (2011) found that the degree of information asymmetry increases with ownership concentration, dampening the interests of the foreign investors in them.

Thus there would be a negative relationship between foreign investments and the percentage of shares held by the promoters.

**H1: The foreign investments in an Indian IT firm would be negatively related to the percentage of shares held by the promoters.**

*Corporate Governance Mechanisms*

Foreign investors usually place more importance on proper governance mechanisms as compared to local investors. The rationale for this argument is that foreign investors are usually minority shareholders (La Porta et al., 1999; Klapper and Love, 2004) and face higher risks of being expropriated by corporate managers and/or controlling shareholders.

Board of directors is a major monitoring mechanism that can prevent expropriation of shareholders by the management (Fama and Jensen, 1985). When the boards are more independent, they monitor the managers better and hence the shareholder interests are protected.

Board size has several implications for board independence (Muth and Donaldson, 1998). A smaller board can be easily dominated by the CEO, whereas a larger board would need more time and effort in the part of CEO to build consensus from the board and hence larger board size ensures greater board independence (Shaw, 1981). Previous studies in the Indian service sector with a sample from software and telecommunications industry have shown that the board
size is a strong control mechanism against managerial indiscretion and fraud (e.g. Kumari and Pattanayak, 2014). Hence a larger board would be preferable for attracting FII in an IT firm.

As per SEBI clause 49, a member of the board becomes independent if,

- He does not have any material pecuniary relationships or transactions with the company, its promoters, its senior management or its holding company, its subsidiaries and associated companies
- He is not related to promoters or management at the board level or at one level below the board, he has not been an executive of the company in the immediately preceding three financial years
- He is not a partner or an executive of the statutory audit firm or the internal audit firm that is associated with the company, and has not been a partner or an executive of any such firm for the last three years
- He is not a supplier, service provider or customer of the company, and
- He is not a substantial shareholder of the company, i.e. owning two percent or more of the block of voting shares.

Studies have shown that the presence of independent directors reduces the likelihood of fraud (Dechow, Sloan and Sweeney, 1996; Beasley et al., 2000) and facilitates better earnings management (Klein, 2002; Ajinkya et al., 2005). Similarly, having an independent director as the board chairman also ensure greater transparency (Min and Bowman, 2012; Raheja, 2005). When the chairman is an independent board member it would avoid power misuse and allow the chairman and the board to exercise independent judgment over CEOs decision (Boyd, 1995). Thus the following can be hypothesized.

**H2a:** There is a positive relation between the number of directors on board and foreign investments in Indian IT firms.

**H2b:** There is a positive relation between the proportion of independent directors and foreign investments in Indian IT firms.

**H2c:** There is a positive relation between the board chairman being an independent board member and foreign investments in Indian IT firms.

The overall hypothesis 2 can be stated as
H2: There is a positive relation between corporate governance mechanisms and foreign investments in Indian IT firms.

These hypotheses have been graphically represented in Figure 3.

*Figure 3. The FII determinant hypothesis model*

Sample and methodology

*Data*

The sample consists of 113 IT firms of India. The sample was chosen based on data availability, and those firms which have all the relevant data available are a part of the sample. Prowess database of CMIE (Center for Monitoring of Indian Economy) contains data filed by all the listed Indian companies. The initial sample was the entire population of IT companies. Once those with incomplete data were eliminated, the sample size came down to 113. The sample was collected for a 9 year period from 2005 to 2013. Thus the data is a panel data of 113 cross sections over 9 years with a total of 1017 data points.
All data were collected from the Prowess data base of CMIE and Bombay Stock Exchange website.

**Variables**
The following are the variable names, their significance and source.

*Table 3: Variables, definition and data source*

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Definition</th>
<th>Source</th>
<th>Type of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII_percentage</td>
<td>Foreign institutional investment as a percentage of total number of shares issued</td>
<td>BSE website</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>Prom_percent</td>
<td>Shares held by promoters as a percentage of total number of shares issued</td>
<td>BSE website</td>
<td>Independent variable</td>
</tr>
<tr>
<td>Tot_Dir</td>
<td>Total number of directors in the company board</td>
<td>Prowess</td>
<td>Independent variable</td>
</tr>
<tr>
<td>Prop_Ind_Dir</td>
<td>Number of independent board members as a proportion of total number of board members</td>
<td>Prowess</td>
<td>Independent variable</td>
</tr>
<tr>
<td>Ind_Chairman</td>
<td>Whether the chairman of the board is independent or not, 1</td>
<td>Prowess</td>
<td>Independent variable</td>
</tr>
</tbody>
</table>
Prior research was referred to identify the control variables. Dahlquist and Robertsson(2001) and Jiang and Kim (2004) provide evidence supporting a positive relationship between foreign share ownership and company size (measured in terms of market capitalization), profitability and a negative relationship with gearing ratio. Lin and Shiu (2003) also show that liquidity ratio is positively related to foreign share ownership. Consequently, company size (market capitalization), return on assets, liquidity ratios and gearing ratio are controlled for in this study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Prowess</th>
<th>Control variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAP</td>
<td>Market Capitalization calculated as the number of shares multiplied by price of one share</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
<tr>
<td>ROA</td>
<td>Measure of profitability calculated as the Net Income by Total Assets</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
<tr>
<td>Gearing</td>
<td>Debt to Equity ratio</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
<tr>
<td>Liq_Quick</td>
<td>Measure of liquidity [(Current assets – Inventories)/ Current liability]</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
<tr>
<td>Liq_Current</td>
<td>Measure of liquidity [Current assets/ Current liability]</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
<tr>
<td>Liq_Cash</td>
<td>Measure of liquidity [Cash / Current liability]</td>
<td>Prowess</td>
<td>Control variable</td>
</tr>
</tbody>
</table>
Methodology

A multiple regression equation can be represented as

\[ y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \ldots + \beta_n x_n + \varepsilon, \]

where \( y \) is the dependent variable and \( x_1, x_2, x_3 \ldots x_n \) are the independent variables, \( \beta_0 \) is the constant, \( \beta_1 \) represents the change in \( y \) with respect to \( x_1 \), \( \beta_2 \) represents the change in \( y \) with respect to \( x_2 \) and so on and \( \varepsilon \) is the unexplained variance. A significant and positive \( \beta_n \) indicates a positive impact of \( x_n \) on \( y \) and a significant and negative \( \beta_n \) indicates a negative impact.

The model used in the study is

\[ FII\_percentage = \beta_0 + \beta_1 \times Prom\_Percent + \beta_2 \times Tot\_Dir + \beta_3 \times Prop\_Ind\_Dir + \beta_4 \times Ind\_Chairman + \beta_5 \times Control\_Variables + \varepsilon \]

As per the hypotheses, we expect \( \beta_1 \) to be negative and significant and \( \beta_2, \beta_3 \) and \( \beta_4 \) to be positive and significant. Significance ensures that a relation is not due to chance alone.

A panel data of 113 cross-sections over 9 years was analysed through fixed-effects model. Panel data ensures more accurate inference of model parameters. Panel data usually contain more degrees of freedom and more sample variability than cross-sectional data.

The p-value from the Hausman test was considered to decide between the random and fixed effects model. The random effects model returned extremely low p-value, proving the inappropriateness of the model to analyse the given data and hence the fixed effects model was used. A two way fixed effects model, which controls both for the year and the firm has been used in this analysis.

Statistical Results

The GRETL software was used to run the regression model and the summary statistics of the variables and the correlation matrix are as below.
From the table 4, we find that the highest variability is shown by the liquidity variables suggesting a variation in the patterns of asset holdings of the companies in the sample.

The promoter percentage initially showed a high variability as expected since the sample contains both family owned and privately owned companies. The data was normalized by considering the logarithm of promoter holdings. Similarly market capitalization and ROA variables also initially displayed high variability and were skewed. So these were also normalized before the statistical analysis.

Table 4. Summary statistics of the variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII_Percentage</td>
<td>5.1335</td>
<td>5.71</td>
<td>0</td>
<td>56.96</td>
<td>10.117</td>
</tr>
<tr>
<td>LProm_Percent</td>
<td>3.4502</td>
<td>3.6797</td>
<td>-3.5066</td>
<td>4.4849</td>
<td>1.0355</td>
</tr>
<tr>
<td>Tot_Dir</td>
<td>7.7109</td>
<td>7</td>
<td>0</td>
<td>30</td>
<td>3.8353</td>
</tr>
<tr>
<td>Prop_Ind_Dir</td>
<td>0.48201</td>
<td>0.5</td>
<td>0</td>
<td>1.33</td>
<td>0.2168</td>
</tr>
<tr>
<td>Ind_Chairman</td>
<td>0.12094</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.32622</td>
</tr>
<tr>
<td>LMCAP</td>
<td>2.4377</td>
<td>2.53</td>
<td>0</td>
<td>6.63</td>
<td>1.4884</td>
</tr>
<tr>
<td>LROA</td>
<td>-0.00024</td>
<td>-0.0565</td>
<td>-8.429</td>
<td>5.7814</td>
<td>1</td>
</tr>
<tr>
<td>Gearing</td>
<td>0.44422</td>
<td>0.06</td>
<td>0</td>
<td>28</td>
<td>1.4506</td>
</tr>
<tr>
<td>Liq_Quick</td>
<td>3.312756</td>
<td>1.535</td>
<td>-0.81</td>
<td>93</td>
<td>7.46</td>
</tr>
<tr>
<td>Liq_Current</td>
<td>3.479173</td>
<td>1.64</td>
<td>0</td>
<td>93</td>
<td>7.1425</td>
</tr>
<tr>
<td>Liq_Cash</td>
<td>1.230531</td>
<td>0.19</td>
<td>0</td>
<td>79.7</td>
<td>4.867</td>
</tr>
</tbody>
</table>

From the table 4, we find that the highest variability is shown by the liquidity variables suggesting a variation in the patterns of asset holdings of the companies in the sample.

The promoter percentage initially showed a high variability as expected since the sample contains both family owned and privately owned companies. The data was normalized by considering the logarithm of promoter holdings. Similarly market capitalization and ROA variables also initially displayed high variability and were skewed. So these were also normalized before the statistical analysis.

Table 5. Correlation Matrix of the variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII_Percent</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LProm_Percent</td>
<td>-0.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tot_Dir</td>
<td>0.311</td>
<td>0.157</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prop_Ind_Dir</td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.056</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As from the Table 5, we find that there is no significant correlation among variables except between the liquidity ratios. Hence, to avoid multi-collinearity issues, we used only one of these, namely the cash ratio, in the subsequent analysis, but also run the same model with the other two to confirm the results.

The regression was run on five different models, the first four with FII percentage regressed on each of the independent variables, promoter share, total number of directors, the proportion of independent members and independence of the board chairman. The final model had FII percentage regressed on all the independent variables.

The results of regression are displayed below. While we present here a brief description of the regression results, a detailed discussion follows in the subsequent section.

*Table 6. Fixed effects model regression output with 113 companies over 9 years*

Dependent variable: Percentage of FII inflow (FII_percentage)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>2.38**</td>
<td>-</td>
<td>0.216237</td>
<td>-0.132</td>
<td>-0.2470</td>
</tr>
<tr>
<td></td>
<td>(0.0412)</td>
<td></td>
<td>(0.8102)</td>
<td>(0.8231)</td>
<td>(0.861)</td>
</tr>
<tr>
<td><strong>Promoter Holdings</strong></td>
<td>-0.8223***</td>
<td>-</td>
<td>0.132</td>
<td>-0.2470</td>
<td>-1.0446***</td>
</tr>
<tr>
<td></td>
<td>(0.0071)</td>
<td></td>
<td>(0.861)</td>
<td>(0.861)</td>
<td>(0.0004)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Total number of directors</td>
<td>0.6048***</td>
<td>(0.0001)</td>
<td>0.6622***</td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>Proportion of independent directors</td>
<td>-1.04714</td>
<td>(0.4436)</td>
<td>-0.8326</td>
<td>(0.5477)</td>
<td></td>
</tr>
<tr>
<td>Independent chairman</td>
<td>-1.573*</td>
<td>(0.0847)</td>
<td>-1.3207</td>
<td>(0.1543)</td>
<td></td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>2.30197***</td>
<td>(0.000)</td>
<td>1.845***</td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>1.24079***</td>
<td>(0.0003)</td>
<td>1.04377***</td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>Gearing</td>
<td>0.0385042</td>
<td>(0.856)</td>
<td>-0.02294</td>
<td>(0.9128)</td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>-0.00434</td>
<td>(0.02753)</td>
<td>-0.0038</td>
<td>(0.3151)</td>
<td></td>
</tr>
<tr>
<td>R Squared</td>
<td>0.3258</td>
<td>0.36</td>
<td>0.32</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>F-value</td>
<td>3.58 (&lt;0.0001)</td>
<td>4.57 (&lt;0.0001)</td>
<td>3.67 (&lt;0.0001)</td>
<td>3.7 (&lt;0.0001)</td>
<td></td>
</tr>
</tbody>
</table>

Note: *** is for significance at the 1 percent level, ** at the 5 percent level, * at the 10 percent level

From Table 6, we find that the coefficient is negative and significant for the promoter holdings, as stated in hypothesis 1. In Model 1, where it is the only independent variable, the coefficient is -0.822317 and is significant at the 1 percent level. Later in Model 5, where all the variables are included in the regression, the coefficient of promoter holdings is -1.0446 and is once again significant at the 1 percent level. These imply that a higher percentage of promoter holdings is associated with lower foreign investments.

With regard to the board size, we observe a positive coefficient for total number of directors in Model 2 (with a coefficient of 0.604830) and Model 5 (with a coefficient of 0.6622). The coefficients in both models are significant at the 1 percent level. This finding is consistent with our hypotheses that a larger board size attract greater levels of FII to a firm.
The coefficient for the proportion of independent directors turn out to be statistically insignificant in Models 3 and 5 which invalidates our hypothesis that a board with a higher proportion of independent directors would be preferred by a foreign institutional investor, over one with a smaller proportion of independent directors.

Finally, the role of an independent chairman in attracting foreign investments shows up with a coefficient that is negative and significant in Model 4 where it is the only independent variable. This goes against our hypothesis that the board chairman being an independent member of the board gives the foreign investors greater confidence in investing in a firm. But in the full specification (Model 5), the coefficient of chairman independence is negative but insignificant.

Table 6 also shows that the coefficients of the control variables viz. market capitalization and ROA are significantly and positively related to the FII percentage. However the liquidity and the gearing ratio (Debt to Equity) have insignificant coefficients.

To summarize, we find support for hypothesis 1 i.e. foreign investors prefer firms with lower levels of promoter holdings over those firms which are held largely by promoters.

Hypotheses 2a is accepted; in other words a larger board does attract higher foreign investments. However we cannot find support for the hypotheses that that the board independence measured through proportion of independent directors in the board (hypothesis 2b) and chairman being an independent member of the board (hypothesis 2c) facilitates higher levels of foreign investments. The hypotheses 2b and 2c being rejected, there is only partial support for hypothesis 2.

We confirmed the robustness of the above findings by repeating the exercise with multiple measures of liquidity (Current ratio and Quick ratio). These estimations returned similar results as in the case explained above. Alternatively we used ROE as the performance measure instead of ROA and this specification also gave us similar results as before.

**Discussion**

We find that the ownership pattern of a firm is strongly associated with foreign investments. Those firms with a higher share of promoter holdings invite lower FII, supporting the argument that when the promoters have a very large holding they can easily manipulate and take decision
in their own interest with utter disregard to the other investors and hence are looked upon with caution by foreign investors.

Indian companies having high concentration of ownership by the promoting family, face critical agency issues (Singla, Veliyath and George, 2014). Our results indicate a need for dilution of family shares to ensure foreign capital inflow to family owned IT firms as well. Our results correspond with other studies that have established a negative association between promoter/family holdings and level of foreign investments (Zuobao, Feixue and Shaorong, 2005; Kim et. al, 2010). However, some studies have concluded that in countries with low investor protection, promoter holdings can be an alternative to poor legal protection and hence can attract foreign capital (Lskavyan and Spatareanu, 2011). With its common law heritage, this does not seem to be the case with India.

Among the corporate governance variables, the only one which showed a highly significant and positive relation to the FII inflow is the total number of directors in the board. This outcome can be interpreted from an agency and a resource based perspective. According to the agency perspective, a larger board ensures lower levels of CEO domination and hence more board independence, thereby inviting foreign investors. According to the resource based view, a larger board would be needed to interact more with the external environment, provide inputs from various streams of knowledge as per their expertise and also to manage a large organization (Pfeffer, 1972). This also can be a reason behind the foreign investors favouring firms with larger boards. Previous studies have also exhibited similar results (Das, 2014).

In the Indian context, the rest of the corporate governance mechanisms have an insignificant or negatively significant association with levels of foreign investments, though it was hypothesized that all of these would be positive and significantly related to FII. Proportion of independent directors and the independence of the chairman are negative and insignificant in the complete model. These factors together determine the board independence. Most of the studies in the area have found a positive relation between the board independence and foreign investments (Weinstein, 2008; Moore et. al, 2012; Desender, Aguilera and Crespi, 2013; Das, 2014). The Indian IT industry does not comply with this general conclusion, the possible reasons for this exception needs to be understood. Firstly, this may be a trend specific to the Indian IT industry. Secondly, it could be that foreign institutional investors themselves would want to behave as insiders in a firm and their interest to invest in a firm with moderate levels of corporate governance could facilitate this (Ananchotikul 2006).
The results also point to the importance or the lack of it, which the foreign investors attach to the concept of board independence as measure through the proportion of independent members and the chairman being independent. Literature has previously pointed out the inadequacy of these measures of independence, suggesting that board process is what ensures independence (Finkelstein and Mooney, 2003) and also that a board is never truly independent (Harvard Law Review, 2006). Our outcome could also be a result of data issues since the sample size had to be reduced to 113 due to unavailability of data for some companies.

As regards the control variables of the regression model, we find that FII in the Indian IT industry depends more on the financial soundness and the size of the company. Thus our study is consistent with several other previous studies that foreign firms prefer larger and financially sound firms (Dahlquist and Robertsson, 2001; Covrig and Lilian, 2002; Kang and Stulz, 1997; Aggarwal, Klapper and Wysocki, 2005). This implies that a strong current is a pre-requisite for IT companies before eyeing an international sources for investments. Previous studies assert that liquidity of the firm has significant positive influence on the investment decisions of firms (Bailey, Chung and Jun-Koo, 1999) and explain that it is safer to invest in liquid assets than illiquid ones because it is easier for an investor to get his/her money out of the investment. However, in our study, the liquidity variables are insignificant and negative. This suggests that investors prefer firms with higher investment returns as compared to the low risk ones with higher levels of liquid holdings.

The conclusions drawn from our study also point towards an increasing convergence in the Indian IT firms towards an Anglo-Saxon model of corporate governance. Convergence in the context of corporate governance can be defined as an increasing isomorphism in the governance practices of public corporations from different countries (Yoshikawa and Rasheed, 2009). Several authors have professed that under the pressures of globalization and due to efficiency reasons, all the nations in the world would converge towards an Anglo-Saxon model of dispersed ownership (Coffee, 1999; Hansmann and Kraakman 2000), making it more preferable as hypothesized in the study. Those companies with a large share of promoter or family ownership also might be forced to disperse their shares more, under the pressure of convergence.

From the outcome of this study, the following model of FII determinants in Indian IT industry can be identified.
Implications and limitations

The study implies that those IT firms aiming at building their capital through foreign investments need to ensure strong current financial performance before going international. It would be easier for firms with lower promoter holdings to build foreign capital as compared to the ones with a significant percentage of shares held by its promoters. The findings also point towards a corporate convergence pattern with all the firms moving towards the Berle-Means model of an ideal corporation (Berle and Means, 1932) of a largely dispersed share ownership.

This study, like several others (e.g. Khanna and Palepu, 2000), assume a linear relationship between the corporate governance characteristics. The exploration of a non-linear relationship between corporate governance characteristics and foreign investment inflow has been necessitated by similar studies which conclude that there are optimum values of corporate governance variables, under and above which their contribution diminishes (e.g. Garg, 2007). In similar vein, it is necessary to investigate the optimum corporate governance characteristics for maximum foreign investment inflow, by adopting a spline or the piece wise linear regression methodology.
The study has not studied the reverse causality of foreign investments leading to better governance mechanisms. Some other variables like promoter good will and reputation might impact the outcomes in a different manner. Alternate tests with other variables to ensure the robustness of the study has not been done either. Restrictions of the data set to a single industry limit the generalizability of the results. Future research may aim to overcome some of the limitations of this study for more robust results.

References


