



Impact of Foreign Equity Holding on Firm Performance

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Abstract

Foreign equity holding is an important part of running a business successfully. It is the key for creating and sustaining competitive edge over other businesses. Today the companies need to invest in foreign equity holding to stand for the financial gain. Thus, this paper seeks to analyze the relationship between foreign equity holding and corporate performance of Indian NSE companies for a period of ten years from 2009 to 2018. The data is collected through secondary sources. The relevant data required for present research is collected from electronic database 'PROWESS' of Centre for Monitoring Indian Economy (CMIE). A sample of 286 NSE has been selected. Data has been analyzed by using Panel Regression. The results indicate that foreign equity holding and firm performance are negatively associated as measured by taking return on assets as proxy.

Keywords: Foreign Equity Holding, Performance, Panel Regression, Assets and Companies.

Introduction

Foreign Equity Holding is an investment made in an enterprise of host (recipient) countries by Multi-National Enterprises or by a non-resident over which they have a control and earn private return. Shareholders get managerial control in the company by making investment in equity in a foreign company (Griffiths and Hall 1984). In fact, foreign equity Holding is direct capital in India as guidelines issued by International Monetary fund (RBI 2003). The Government of India accordingly defined the Foreign Direct investment arrival in 2002 and it considered reinvestments and venture capital along with equity capital.

By taking into consideration the role of foreign equity holding in the developing countries, Moran (1998) defined that transfer of 'managerial resources' from one country to another country is better way to define foreign equity holding. The 'managerial resources will consider specialized and technological knowledge in the areas of patents, know-how, sales techniques, managerial expertise, and ability to obtain funds and credit. Since the productivity of such transferred managerial resources is very high in the recipient country, they make a big contribution to the development of industry to which they are made available in the host country. There is significant literature available on foreign equity holding which described that when foreign equity holding brings to host country it has positive effect in that country (Blömstrom and Kokko, 1998; Eichengreen and Kohl, 1998; Holland et al., 2000; Navaretti and Venables, 2004). So this study will take into consideration the impact of foreign equity holding on firm performance of selected NSE companies of India.

REVIEW OF LITERATURE

Carlos and Luis (2011) examined the relationship of board structure by the appointment of director and the responsibility of director on firm return on assets. Authors have concluded that outside busy directors were the most important key drivers for the improvement in firm performance. **Eniola (2014)** discussed the responsibility and involvement of SMEs performance in the development of the developing country like Nigeria. In this paper, the author has discussed the contribution of SMEs performance and barriers faced by the firms. Results from the study revealed that the main motive of the present research were to raise the awareness level of the SMEs, importance and SMEs performance level for the development of developing Nigerian country at national and economic level. **Vincent (2011)** examined the effects of structure of the ownership on the performance of listed companies in Kenya country. The author has applied the agency theory as an analytical approach or theoretical framework. Return on assets, return on equity and dividend yield has been taken as the measurement variable and significant negative relationship with the performance of the firm. Moreover, ownership of managers has significant positive correlation with the performance of firm. **Sytse et al. (2002)** investigated that how the structure of ownership impacts the firm's performance by using the firm level data from the emerging markets in India. He basically focused upon the previous unexplored incident named: different role played by the institutions in foreign and stakeholders from foreign corporate. The author has applied the analysis of the group of firms and results revealed that there was a negative impact on the firm performance. **Attiya and Robina (2008)** determined the factors influencing the ownership concentration and effects of ownership concentration on the other variables like performance of firm. The time period has been taken for the study was 2003 to 2008. Moreover, results revealed that higher investment opportunities provide the better option to go for concentration of ownership. **Jayesh (2015)** investigated the impact of ownership structure on the performance of firm for unbalanced panel firms. In this paper the author has examined the impact of connections between the foreign, institutional, corporate and managerial ownership on the performance of Indian corporate firms. He also concluded from the study that foreign shareholders and corporate shareholders do not affect the firm performance. **Douglas (2005)** analyzed the relationship between diversification strategy at international level and performance of firm in the emerging market. The sample size has been taken from the Mexican firms. Results concluded that U shaped curvilinear relationship was found amongst the international diversification and firm performance. **Neeraj and Arun (2005)** examined the literature at international level on performance of firm, corporate governance and investigated the relationship in the context to India. **Vincent and Peter (2011)** examined the interrelation between ownership, characteristics of board and manager and performance of firm. The study results suggested that the impact of ownership concentration and diverse ownership on the performance of the firm is significantly different from each other.

Research Methodology

This section contains the details of various tests used for estimating the impact of foreign equity holding on firm performance. The present study selected companies listed in NSE 500 index and these 500 companies are considered to be the largest companies on the basis of full market capitalization, accounting for more than 95% of the total market capitalization of the companies listed on National Stock Exchange. The traded value of stocks of companies listed on NSE 500 index account for more than 96% of the total traded value of all stocks listed on

National Stock Exchange.¹ Therefore, companies listed on NSE 500 may be considered as the best representative of all companies listed on NSE that will reflect the whole market. The list of companies listed on NSE 500 was obtained from the official website of National Stock Exchange (www.nseindia.com). In order to collect the data relating to selected variables, CMIE's corporate database Prowess was explored and it was found that data for selected variables for 214 companies was unavailable. Therefore; such companies, for which required data was not available on Prowess, were excluded from the list. Subsequently, data for 286 companies were obtained from Prowess and considered for the final analysis.

As per the objective of the study, the present study measured foreign equity holding using three variables such as foreign equity holding; Indian promoter holding; and non-promoter holding; whereas firm's performance was measured using variable i.e. return on assets (ROA). These variables were considered as independent variables and dependent variables respectively. In addition to independent and dependent variables, the present study also selected four control variables given as under:

Independent variables:

- Foreign equity holding;
- Indian promoter holding; and
- Non-promoter holding.

Dependent variables:

- Return on assets (ROA)

Control Variables:

- Size of the firm;
- Age of the firm;
- Tangibility; and
- Capital expenditure.

The data was collected for previous 10 years i.e., for the period 2009-2018. In order to achieve objective of the study, following regression equation was developed to test relationships among variables as per following sub-head:

Estimating the impact of foreign equity holding; Indian promoter holding; and non-promoter holding on return on assets.

Discussion of Results

The discussion on the above-mentioned regression model, is given as under:

Estimating the impact of foreign equity holding; Indian promoter holding; and non-promoter holding on return on assets.

For estimating the impact of foreign equity holding; Indian promoter holding; and non-promoter holding on return on assets for the selected companies, it is important to select an appropriate type of model i.e., whether fixed effects or random effects model is suitable for given data. Fixed effects model estimates the effects of variables that do not change over time; however random effects model estimates the effects of variables that change over time. Fixed effects variables are assumed to be constant and they have fixed effects on dependent variable i.e., the influence they have over dependent variable is the same.

¹ https://www1.nseindia.com/products/content/equities/indices/nifty_500.htm

5.1.1 Selection of fixed and random effects model: Applying Hausman test

Literature suggested using Hausman test when to choose between fixed and random effects model. This test also helps researchers to diagnose endogenous predictor in a regression equation. The presence of an endogenous predictor in a regression model render estimates inconsistent because it violates an important assumption of regression model that there is no significant correlation between independent variables and the error term. Therefore, in order to choose between fixed and random effects model; the present study used Hausman test for model specification. The null and alternate hypotheses developed for Hausman test are given as under:

H0: Random effect model is appropriate.

H1: Fixed effect model is appropriate.

Under this test, the random effects were selected for cross-sections. In the present study, 286 companies were selected for cross-sections and not over time. Findings of Hausman test are given in the following table:

	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	Decision
Cross-section random	51.23	7	0.00	H0 is rejected

The above table revealed that H0 proposed for Hausman test is rejected that implies that fixed effect model is appropriate in the present study. This finding suggested using dummy intersection model in which 285 (n-1) dummies were introduced.

5.1.2 Significance of dummies: Applying Wald test

In this step, it is pertinent to decide between application of fixed effects model and pooled regression OLS; for this, the present used Wald test that examines the significance of dummies introduced in the model. In this test, when dummy variables are found to be insignificant i.e., the influence of dummy variables is not different from zero then use of pooled regression is advisable otherwise fixed effects model is advisable to use. The null and alternate hypotheses developed for Wald test are given as under:

H0: The influence of dummy variables on the model is insignificant.

H1: The influence of dummy variables on the model is significant.

Findings of the Wald test are given as under:

	Value	Degree of freedom	Prob.	Decision
F-statistic	8.02	(208, 2567)	0.00	H0 is rejected

Findings of Wald test ($F = 8.02$; $p < 0.05$) suggested to reject the null hypothesis implying that there is significant influence of dummy variables introduced in the model. Therefore, the application of fixed effect model seems to be justified. Following these findings, estimating the impact of foreign equity holding; Indian promoter holding; and non-promoter holding on return on assets for the selected companies, fixed effect model of regression in E-views was used. On the basis of previous literature available in this domain, following null hypotheses were developed:

- H0 (1): The foreign equity holding is likely to show no impact on return on assets for selected companies.
- H0 (2): The Indian promoter holding is likely to show no impact on return on assets for selected companies.
- H0 (3): The non-promoter holding is likely to show no impact on return on assets for selected companies.

On the basis of above-mentioned hypotheses and the use of four control variables, the following regression equation was developed:

$$ROA = \alpha + \beta_1 (FEH) + \beta_2 (IPH) + \beta_3 (NPH) + \varepsilon$$

Where, ROA = Return on assets
 FEH = Foreign equity holding
 IPH = Indian promoter holding
 NPH = non-promoter holding
 ε = Error term

5.1.3 Statistical Diagnostics: Testing multi-collinearity and autocorrelation

Literature suggested that it is important to test multi-collinearity among independent variables of the study. Multi-collinearity is a state when there are high correlations between two or more independent variables of the study. The presence of high correlation among independent variables renders estimates inconsistent. Therefore, the present study tested correlation among all independent variables. Findings in this regard are given as under:

Table: Correlation between independent variables: Testing multi-collinearity			
	FEH	IPH	NPH
FEH	1	0.254*	-0.104*
IPH		1	-0.616*
NPH			1

Notes: *significant at 1 percent level; FEH: Foreign equity holding; IPH: Indian promoter holding; and NPH: Non-promoter holding

The above table revealed the correlation among all independent variables. Findings revealed that there is no high correlation between independent variables. The maximum correlation between two independent variables i.e., Indian promoter holding and foreign equity holding was found to be 0.254 which is lower than the permissible correlation value of 0.8 (Gujarati, 1995). Therefore, it is concluded that there is no multi-collinearity among independent variables.

The auto-correlation between variables was also tested in order to examine independence of error terms in the regression equation. For testing presence of auto-correlation, Durbin-Watson test was used. It is a test used for diagnosing autocorrelation in the residuals from a regression analysis. The range of Durbin-Watson statistic lies between 0 and 4. Any value greater than 2 and less than 4 means that there is negative autocorrelation between residuals from a regression analysis; whereas any value between 0-2 implies that there is positive autocorrelation between residuals from a regression analysis. Gujarati, (1995) suggested that Durbin-Watson statistic between 1.5-2.5 indicate insignificant autocorrelation residuals from a regression analysis. Findings of Durbin-Watson test revealed that the statistics lies between

the permissible levels i.e., between 1.5-2.5. Therefore, the presence of autocorrelation was ruled out in the present study.

5.1.4 Estimates of the regression model

For testing the hypotheses proposed in the present study, fixed effects regression model was used. The overall model fit was diagnosed using f-statistic which was found to be significant ($F= 9.49$; $p < 0.001$). It means that the combined effect of all independent variables on return on assets for selected companies was found to be significant. However, this statistic does not highlight the individual effect of independent variable on return on assets for selected companies. The individual level effects of independent variables on return on assets for selected companies are mentioned in the table given below:

Table: Estimating the impact of foreign equity holding; Indian promoter holding; and non-promoter holding on return on assets				
Null hypotheses	Coefficient	t-Statistic	Prob.	Accept/reject the null hypotheses
H0 (1): The foreign equity holding is likely to show no impact on return on assets for selected companies.	-0.046	-1.359	0.174**	Accepted
H0 (2): The Indian promoter holding is likely to show no impact on return on assets for selected companies.	0.098	3.432	0.0006*	Rejected
H0 (3): The non-promoter holding is likely to show no impact on return on assets for selected companies.	0.111	4.876	0.0000*	Rejected
Notes: *significant; **insignificant				

In addition to three independent variables, the present study also included four control variables in the regression equation. The selected control variables were size of the firm; age of the firm; tangibility; and capital expenditure. It was found that the influence of three of the control variables on return on assets was found to be significant. For instance, the impact of size of the firm on 'return on assets' was found to be negative ($\beta = -0.036$; $p < 0.000$); indicating that when size of the firm increases then return on assets decreases. This finding suggested limiting size of the firm because a huge size of the company may result in reduced 'return on assets' of the company. The second control variable included in the model was 'age of the firm'; finding in regard to this variable revealed that there is a positive impact of 'age of the firm' on return on assets of the company ($\beta = 0.043$; $p < 0.000$). This finding indicated that higher the age of a firm, higher is the return on assets; indicating that older firms are able to obtain more returns on their assets. Further, tangibility of the firm also revealed a significant impact on 'return on assets' of the firm ($\beta = -0.042$; $p < 0.05$). However, nature of relationship between tangibility of the firm and 'return on assets' of the firm was found to be negative; indicating that higher the tangibility of the firm, lower is the 'return on assets' of the firm. In contrast, the impact of capital expenditure on 'returns on assets' was found to be insignificant ($\beta = 0.00016$; $p = 0.177$); indicating that the quantum of capital expenditure makes no difference in return on assets of the firm.

The r square of the model was found to be 0.519 which represents that all the independent variables explained 51.9% variation in the dependent variable i.e., return on assets. The above table revealed that out of the three null hypotheses proposed, two of them were rejected;

whereas one hypothesis was accepted. The present study proposed in H0(1) that the foreign equity holding is likely to show no impact on return on assets for selected companies. This hypothesis was accepted that failed to establish a significant relationship between foreign equity holding and return on assets for selected companies ($\beta = -0.046$; $p = 0.17$). This finding implied that change in foreign equity holding of a company failed to bring any significant change in return on assets.

From H0(2), it was expected that Indian promoter holding is likely to show no impact on return on assets for selected companies. Findings rejected this relationship as Indian promoter holding was found to have a positive impact on return on assets for selected companies ($\beta = 0.098$; $p < 0.05$). In other words, it can be interpreted that when Indian promoter holding increase then return on assets also increases. Therefore, increase in Indian promoter holding is one of the ways for improving performance of the companies. Promoters may increase their holding in the companies by buying stocks of the company and this activity is often considered positive among stakeholders of the company because stock-buying by promoters indicates that promoters are much certain regarding future growth of the company. Thereby, promoters attempt to influence potential investors to buy stocks of their company leading to substantial increase in price of the company's stocks. Subsequently, promoter's wealth also increases. However, literature suggested that a significant decrease in promoter's holding indicates that promoters have low confidence regarding future prospects for their stocks. Literature suggested having promoters holding up to a certain extent beyond that it starts affecting interest of the stakeholders. For instance, in case of very large promoter holding may result in manipulation of company's decisions while disregarding stakeholder's interest.

Further, it was interesting to note that non-promoter holding revealed a positive impact on return on assets for selected companies ($\beta = 0.11$; $p < 0.05$). This finding rejected the relationship proposed in H0 (3); suggesting that higher is the non-promoter holding, higher is the return on assets for selected companies. However, the strength of the relationship was found to be weaker than for relationship proposed in H0 (2). Non-promoter investors include Foreign Institutional Investor (FII); mutual funds and financial institutions etc. On the basis these findings, companies are suggested to focus more on increasing promoters holding which is more likely to impact return on assets of the company.

Conclusion

The principal purpose of the present study is to investigate the relationship between foreign equity holding and firm performance as measured by Return on Assets (ROA). Firm performance of a company has been measured by using panel data methodology. Present analysis has been conducted on a sample of 286 NSE companies, which include firm equity holding. Overall empirical findings, which are based on Panel Regression analysis between firm performance and corporate equity holding measures, clearly indicate that foreign equity holding has negative relationship with firm performance. These findings allow the present researchers to conclude that the companies should invest in NSE companies to stand for the financial gain but foreign equity holding is not consider the key factor for investment. The practice of investing in foreign equity holding may be exercised by the managers to organize and utilize foreign equity capital effectively to have additional profitable gain.

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