AN EMPIRICAL INVESTIGATION OF TUNNELLING PRACTICES OF MANUFACTURING SECTOR IN INDIA

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Abstract

Purpose – An empirical investigation of extent of tunnelling practices in Indian manufacturing sector.

Design/Methodology/Approach – The study is based on assumption that if controlling parties uses Related Party Transactions (RPTs) for tunnelling purpose than it will negatively affects firm's financial performance. And it is more perceptible in Indian manufacturing sector. For the purpose, secondary data related to RPTs and financial performance has been collected for three years (From 2012 to 2015). The analysis has been done using Random Effect panel regression model.

Findings –There is a negative impact of RPI on firms' financial performance and positive impact of RPE on firm's financial performance. Hence, tunnelling is prevalent through RPI.

Practical implications – The use of RPIs for tunnelling purpose by Indian manufacturing sector point out the need to look at their governance practices in a more nuanced manner. The exiting legislations need amendments because they are unable to control such dubious activities.

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Originality/value – By determining the extent of tunnelling in RPTs this study provides an analysis of extent of tunnelling practices in Indian manufacturing sector. This has not been researched so far.

Paper type- Research paper

Keywords - Corporate governance; RPTs; Tunnelling; Manufacturing.

Introduction

The sociology defines a business group as a set of multiple relationships among legally separated firms under common control and ownership (Khanna and Yafeh, 2005). Further, the business group are of three types *i.e.,* family-owned, widely-held, and state-owned. In widely-held business group ownership is widely dispersed among multiple shareholders and managers control everything. However, the state-owned business groups are the one which are run and controlled by the politicians on the behalf of the state (Vickers and Yarrow, 1988; Boycko et al., 1996). In case of family-owned business groups there is no separation of management, ownership and directorship. As the family control everything, hence, it does not suffer from agency problem of separation of control and ownership (Davis, 1983).

There exist two contradicting views about business groups; one is efficient hypothesis view which concludes that business groups are prerequisites in developing countries to facilitate efficient allocation of capital and managerial resources (Khanna and Palepu, 1997, 2000). Moreover, business groups act as supplementary of market mechanism by providing member firms alternative means for overcoming different problems. On the contrary, the tunnelling hypothesis concludes that business groups are formulated by some domineering shareholders to drain the resources for their personal benefits called tunnelling. Tunnelling word is derived from scientific word tunnel which means a narrow object for passing. In management tunnelling is used as a synonym of corruption where controlling parties drain resources through tunnel at the cost of other stakeholders. The tunnelling activities are prevalent among Indian business groups. Tunnelling can take place through many forms like through transfer pricing to parties related to controlling shareholder, excessive executive compensation, loan guarantees, expropriation of

corporation opportunities, manipulation of dividend payout rates etc. (Johnson et al., 2000). This research paper is confined to RPTs only. The RPTs are arrangements between two parties who are joined by a special relationship prior to the transactions.

After analysing few cases (Enron, Adelphia etc.) it can be concluded that the related party transactions (RPTs) can be used for tunnelling purpose. The Enron used special purpose entities who's CFO manipulate income and transfer cash for his personal benefits. Another case was of Adelphia firm which provided related party bank guarantee to its executives. However, government formulated section 402 of the Sarbanes Oxley Act to restrict related party bank loans and guarantees in 2002. The major limitation of the act is that it is confined only to related party bank guarantees (loans to executive officers or higher authorities).

Considering the fact a hypothesis has been formulated that if related party transactions are used for tunnelling purpose then there will be negative effect of tunnelling practices on firm's financial performance. The impact of related party income and related party expenditure has been determined on firm's financial performance.

Next issue of concern is the sector for which tunnelling practices have to be analysed. We have chosen Indian manufacturing sector to determine the extent of tunnelling practices. This sector is closely connected with engineering and industrial design. A few examples of major manufacturing in North America include General Motors Corporation, General Electric, and Procter & Gamble etc.

The manufacturing sector is having high growth potential. As a result, Prime Minister Mr. Narendra Modi, has launched 'Make in India' scheme to place India on the world map as a manufacturing hub. Further, the India government has set a target growth rate of 25% of gross domestic product by 2025, from 16% currently. With impetus on developing industrial corridors and smart cities, the government aims to ensure holistic development of the nation. The corridors would further assist in integrating, monitoring and developing a conductive environment for the industrial development and will promote advance practices in manufacturing. There are several reasons for choosing this sector. Some of them have discussed here.

Research methodology and Sample design

This paper has examined the impact of corruption on performance of the manufacturing sectors at the state level in India. We used the data on the incidence of corruption-related cases as the explanatory variable and used the conviction rate as an instrumental variable, which have not been used in previous studies. Our estimated results show that corruption seriously reduces gross value added per worker and total factor productivity, but not the capital-labour ratio.

The study is based on assumption that if Related Party Transactions are used for tunnelling purpose by the promoters than it will negatively affects the firm's financial performance and it is more perceptible in manufacturing sector. For the purpose, secondary data related to RPTs and financial performance has been collected for three years (From 2012 to 2015). The analysis has been done using Random Effect panel regression model.

Panel (data) analysis is a statistical method, widely used in humanities which deal with two-dimensional (i.e. cross sectional and times series) data. The data are usually collected over time and over the same individuals and then a regression is run over these two dimensions. A common panel data regression model looks

$$y_{it} = a + bx_{it} + \epsilon_{it}$$

In a fixed effects model, ϵ_{it} is assumed to vary non-stochastically over i or t making the fixed effects model analogous to a dummy variable model in one dimension. In a random effects model, ϵ_{it} is assumed to vary stochastically over i or t requiring special treatment of the error variance matrix.

Table1: Descriptive Statistics

Variable	Statistics	2012	2013	2014	2015
RPI	Mean	2219.47	2267.3	2155.87	2170.4
	STDEV	4607.7	4874.52	4672.05	4666.02
	Max	21901.7	22845.3	21345	21345
RPE	Mean	1600.16	1863.84	2126.23	2144.01
	STDEV	3306.37	4372.07	5658.28	5651.95

	Max	21901.7	17836.4	24261.7	24261.7
Total income	Mean	33431.59	39290.36	37577.07	37654.85
	STDEV	63564.29	68060.8	73765.54	73730.96
	Max	285700.1	306484.7	340398.8	340398.8
Total expenditure	Mean	30673.43	36454.9	34650.4	34770.15
	STDEV	56449.86	61172.9	64937.59	64881.45
	Max	248096.4	269365.3	297172.8	297172.8
Total assets	Mean	22671.42	26632.13	28006.42	28118.6
	STDEV	30816.91	33200.46	34890.58	34813.08
	Max	117762	132689.4	139419.2	139419.2
PAT	Mean	3147.72	2892.32	3214.39	3176.23
	STDEV	8069.99	8573.26	9519.74	9530.03
	Max	37966.7	38674.9	43152.6	43152.6

Source: Compiled by author

Descriptive statistics provides simple summaries about the sample and about the observations that have been made. Such summaries may be either quantitative, i.e. summary statistics, or visual, i.e. simple-to-understand graphs. These summaries may either form the basis of the initial description of the data as part of a more extensive statistical analysis, or they may be sufficient in and of themselves for a particular investigation. The result of data regarding related party transactions and manufacturing firm's income and expenditure are:

By applying the descriptive statistics we analyses that RPI having the highest mean in the 2013 and highest standard deviation in the year 2013 but the RPI range is decreasing from 2012-2015 from 21901.7 to 21345. Opposite to it RPE is having the highest mean in the 2015 and highest standard deviation in the year 2014 but the RPI range is increasing from 2012-2015 from 21901.7 to 24261.

Total income of the manufacturing company includes the sales and cost of goods sold and operating expenses. Results of descriptive statistics show that the total income of manufacturing

sector having the mean value in 2013 and standard deviation in 2015 and also total income range is increasing from 285700.1 to 340398.8.

Total expenditure range is increasing from 2012-2015 which shows that the manufacturing sector investing on in business operations. Total expenditure has highest mean value in the year 2013 and standard deviation in 2015.

Total assets having highest mean value in 2015 and standard deviation in 2014.total assets range increasing from 2014-2015 and increasing value range is from 117762 to 139419.2.

At the last, PAT which indicates the overall profit of the company after tax. In the table, PAT range of the manufacturing sector is increasing from 2012-2015, and the increasing figures are from 37966.7 to 43152.6. PAT having highest mean value in the year 2014 and standard deviation in the year 2014.

Hausman test

It is a statistical hypothesis test in the econometrics used to differentiate between fixed effects model and random effects model in panel data. In this case, Random effects (RE) is preferred under the null hypothesis due to higher efficiency, while under the alternative fixed effects (FE) is at least consistent and thus preferred. As we know in the hausman test, which is firstly tested in e-views for checking the authenticity of the data regarding whether data required fixed effect or random effect.

So for analyzing the data, firstly we drag the data from the excel sheet to the e-views then apply the hausman test and we get the probability 1.43 which is greater than 0.05, it means that in this research, Ho is accepted which requires the random effect.

Random effect

In statistics, a random effect(s) model, also called a variance components model, is a kind of hierarchical linear model. It assumes that the dataset being analyzed consists of a hierarchy of different populations whose differences relate to that hierarchy. In econometrics, random effects models are used in the analysis of hierarchical or panel data when one assumes no fixed

effects (it allows for individual effects). The random effects model is a special case of the fixed effects model. Contrast this to the biostatistics definitions, as biostatisticians use "fixed" and "random" effects to respectively refer to the population-average and subject-specific effects.

After checking the hausman test and through accepting the null hypothesis, result in the e-views is through panel regression are: While using the panel tool the variable information is as follows: ROA is a dependent variable. The method is Panel EGLS. The time period is 2012-15. The cross section includes 22. Through this information the result of two-way random effect is:

Table2: Random Effect

variable	coefficient	Std. Error	probability
ROA	0.087171	0.023380	0.0003
RRPI	-0.130774	0.074648	0.0834
RRPE	0.125129	0.087646	0.1571

RRPI shows ratio to the related party income to the total income of the firm. The data reveals that RRPI is having negative value of coefficient which shows that there is negative relation between the related party income and firm financial performance. It means sample firm is using related party income to drain resources for their personal benefits. The RRPI having the probability less than 0.10 which indicates that the RRPI is 10% significant to firm's financial performance.

On the other end, RRPE is the ratio of related party expenditure to overall expenditure of the firm. The data reveals that RRPE is having positive value of coefficient which shows that there is positive relation between the related party income and firm financial performance. In short, the sample firm is efficiently using their assets for business operations and earns income through transacting within the same business groups. The sample firm use the expenditure for value addition.

Conclusion

There exist two competing views about business groups in emerging markets, tunnelling view and propping view. According to propping view business groups supplement and complement

the markets. Whereas, tunnelling view concludes that business groups are formulated by promoters to drain resources for their personal benefits at the cost of minority shareholders.

The result concluded that there is negative association between the related party income and firm's financial performance. On the contrary, there is positive association between related party expenditure and firm's financial performance. In short, the sample firm exercise related party income for making personal gains and using related party expenditure for making value addition in firm.

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