FIRM CHARACTERISTICS AND CORPORATE PERFORMANCE: EVIDENCE FROM INDIA

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Abstract   *The objective is to analyse the efficacy of firm structure as a corporate governance tool. For this purpose, we examine the effect of firm size, firm age, firm growth, board size, and independent directors on a board, on corporate performance. To test our hypothesis, we use a sample of 270 Indian IT companies, all of which are listed on the National Stock Exchange. Our main empirical result depicts the positive impact of firm size, firm age, and independent directors on corporate performance. The larger board size can reduce corporate performance, which can lead to a lack of coordination, flexibility, and communication. More members on a board can be the cause of conflict, either in terms of views or opinions, which ultimately leads to wastage of financial and time resources. The growth of the firm seems to have an insignificant impact on corporate performance as sales figures have a recessionary impact.*

Keywords: *Firm Age, Firm Growth, Firm Size, Corporate Performance, Board Size, Governance, Independent Directors*

JEL Classification: *G3*

INTRODUCTION

The efficacy of the firm structure is the main tool in the internal governance of a company, and its impact on corporate performance is one of the most discussed issues in literature in recent times. The literature on firm structure focuses on three main aspects: firm size (Short & Keasey, 1999; Majumdar & Chhibber, 1999; Jang & Kim, 2006; Papadogonas, 2007; Halil & Hasan, 2012; Akinyomi & Olagunju, 2013), firm age (Balik & Gort, 1993; Agrawal & Gort, 1996; Garnsey, 1998; Coad, Segarra & Teruel, 2007; Hui, Ladzi, Jeatabadi, Kasim & Radu, 2013; Brown & Medoff, 2003), and firm growth (Beck et al., 2005; Schiffer & Weder, 2001; Bercovitz & Mitchell, 2007; Star & Massel, 1981; Aldrich & Auster, 1986).

Many theoretical foundations give impetuous to firm structure, i.e., firm size, age, and growth. The theory of liability of newness describes how young corporate firms face higher risks of failure compared to mature, old companies. There is no experience in managing and organising corporate firms; therefore, firms in their infancy face higher risks and failures. Liability of adolescence theory explains why firms face an initial honeymoon period in which they are buffered from the sudden exit by their initial stock of resources. Marris growth maximisation theory of the firm states that on the one hand, maximisation of growth rate is the main target fixed by agents or managers, while on the other hand, maximisation of share price as well as dividends are the top priorities of shareholders. Marris, in his growth maximisation model, develops a balanced growth theory to maintain and create a relationship between growth rate and share prices, where managers choose a fixed growth rate in which a firm's sales, profit, assets, and so on, grow. Large firms follow the procedure of audited financial statements to present in front of outside investors, and follow corporate governance mechanisms more efficiently compared to small firms. Investors or outsiders want to go through these financial statements, but small firms usually find it expensive to supply and keep audited financial statements. It is difficult for small corporate firms to overcome this issue. Small corporate firms lack managerial talent, ability, and sufficient staff members to furnish and present appropriate data. Informational opacity is the chief cause of why small corporate firms cannot issue public statements, even though they bear significant costs associated with public equity and debt problems. Small corporate firms rely on the private mode of financing for their needs and requirements. Risk bearing hypothesis states that large firms are more capable and have the survival ability at the time of recession as they have huge assets. Large firms also have sinking and contingency funds to deal with any uncertain changes in the business environment and maintain the minimum existence level. The pecking order theory of financial structure tries to show that firms with a big size are more capable of generating internal funds. Economies of scale hypothesis states that

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large-size firms can take cost benefits either in terms of discounts, concessions, specialisation, or division of labour. As output increases, the average unit cost starts decreasing. There are many types of economies of scale, generated and attained when the size of the firm is big, i.e., managerial, technological, financial, risk-bearing, specialisation and division of labour, information, marketing, and so on. Liability of obsolescence theory argues that established firms mostly suffer as it is difficult for matured corporates to adapt to the changing business environment. The Liability of senescence theory states that old and established firms are rigid in their accumulated rules, routines, and organisational structures. If firms with inertia effects want to survive in the changing business environment, they have to adopt new strategies to gain the benefits of new chances; otherwise, it will invite a threat from new entrants in the market.

This research study also adds 2 key variables – board size and independent directors on a board – to empirical literature, to analyse their impact on corporate performance. Many rich literature reviews on corporate governance and board size are available. Some pieces of literature (Pearce & Zahra, 1991; Lipton & Lorch, 1992; Jensen, 1993; Yermack, 1996; Shleifer & Vishny, 1997; Barnhart & Rosenstein, 1998; Vafeas, 2000) empirically concluded that small boards have a positive impact on corporate performance. On the contrary, many pieces of literature (Fama & Jensen, 1983; Dalton et al., 1999; Dalton & Dalton, 2005; Raheja, 2005; Aduda, Chogii & Magutu, 2013; Irshad & Ali, 2015) depict that large boards contribute towards enhancing corporate performance. Agency theory states that if the board size is large, it creates difficulty while taking decisions, as everyone has their own opinions, ideas, and perceptions, which leads to conflict and delays in decisions, thereby increasing agency cost and reducing the profitability of the companies. All studies (Chaganti et al., 1985; Hossain et al., 2001; Kiel & Nicholson, 2003; Mallin, 2005) are consistent with the finding that boards with a small size are more productive, because it is easy to have co-ordination among members of the board and attain cohesion. Studies conducted by Lipton and Lorsch (1992), Yermack (1996), Eisenberg et al. (1998), Parker (2006), and Vincent and Nicole (2010) observed that when there are more members on the boards, individual members will take less liability in performing tasks and the monitoring management assumes that other members on the board will enjoy the benefits without even incurring any costs, which leads to the free-rider problem. All empirical studies, i.e., Gul, Sajid, Razzaq and Afzal (2012); Mutlu, Essen, Peng and Saleh (2018); Risheh and Al-Saeed (2012); Adbiyi (2017); Kesner, Victor and Lamont (1986); Mishra and Nielsen (2000); Holtz and Neto (2014), furnish a positive and direct link between independent directors and financial quality disclosure, firm performance, and reporting quality of accounting information. Independent directors

keep a keen watch on the earning quality of corporate firms as they are not biased and are fair while making decisions.

In that context, the rest of the research paper is furnished as follows. Section 2 explains the theoretical background and the hypotheses to estimate. Section 3 chalks out the data and methods of estimation used in this empirical study. Section 4 presents result analysis and discussion of variables undertaken for research. Section 5 concludes with the findings of the study and points out the limitations of the research study. The paper ends with a list of references.

THEORETICAL BACKGROUND AND HYPOTHESIS

This research study tries to show the link between firm structure [firm age, firm growth, firm size, the board size, and independent directors (the last two are control variables)] and corporate performance. An important variable that is required to be taken into consideration while studying corporate performance is firm age. According to the theory of Kenneth Arrow, corporate firm age produces a direct and significant impact on the productivity and profitability of the firm (Balik & Gort, 1993). It is depicted that possession of knowledge, abilities, and skills is seen in mature firms. Efficient human capital and financial resources can be generated by mature firms easily, when compared to firms at the infancy stage (Agrawal & Gort, 1996). Coad, Segarra and Teruel (2013) attempted to discover the positive impact of firm age on the financial performance of Spanish firms listed on the Madrid Stock Exchange. Hui, Ladzi, Jeatabadi, Kasim and Radu (2013) attempted to depict the direct and significant impact of firm age on the financial firm performance (return on equity and return on assets) of corporate firms. Age could also be linked to the quality of corporate-governance. Easterbrook and Fischel (1999) depict that newly listed firms start with relatively few provisions that shield them from the disciplinary forces of the takeover market; such takeover defences were added only in later years. Some researchers, i.e., Evans (1987), Clementi (2002), and Leonard-Barton (1992) propose that organisational rigidities, structural rigidities, ignoring innovation signals, and difficulty in adaptability in the market scenario are the common features in aged firms. Jovanovic (1982) and Ericson and Pakes (1995) furnish that matured firms specialise and find ways to standardise, coordinate, and speed up their production processes, as well as reduce costs and improve quality. The relevant literature goes back to Smith and Ricardo.

H1: Corporate performance will be increased by established companies.

Firm growth increases a company's attractiveness to external investors, thus facilitating external financing. Many

research studies (Beck et al., 2005; Schiffer & Weder, 2001; Bercovitz & Mitchell, 2007) depicted that firm growth is a positive determinant of a company's ability to receive external financing as well as performance. Among the most noticeable debated advantages of firm growth for corporate performance are economies of scale and scope gaining larger companies. Star and Massel (1981) empirically manifested a direct link between firm size, and thus, growth and survival rates of companies. Starting from firm survival as the most fundamental of firm performance metrics, academic research provides a wide range of reasons for the positive influence of firm growth on corporate performance, in particular, accounting and market performance (Aldrich & Auster, 1986).

H2: There is a positive link between firm growth and corporate performance.

Firm size is another essential variable in the field of corporate governance and performance which needs to be given attention. Williamson (1967) showed the negative impact of firm size on financial firm performance. It also stated the coordination and monitoring problems of large firms. According to the pecking order theory of financial structure, larger size firms have a direct impact on firm performance. Majumdar and Chhibber (1999) observed efficiency and result-oriented nature of larger firms, compared to small corporate firms. Papadogonas (2007) examined the positive impact of firm size on the profit rate of 3,035 manufacturing listed corporate firms in Greece. Akinyomi and Olagunju (2013) depicted that firm size created a positive influence on the profit rate of Nigerian listed corporate firms. Firm size may also capture business diversification in the case of large firms, so return on assets may improve with size due to scope economies and synergy across different business lines. It is feasible to proclaim that firms can initiate higher sales revenue across different spheres without having the corresponding asset base for each sphere.

H3: There is a direct link between firm size and corporate performance.

One of the most analysed variables in the study of corporate governance is the board size. Some of the research studies do not furnish the effect of board size on corporate performance (Barroso Castro et al., 2010; Bennedsen, Kongste & Nielsen, 2008). There has been some pragmatic verification that provides the conclusion that increased board size can have a positive association with the performance (Forbes & Milliken, 1999; Goodstein, Gautam & Boeker, 1994; Van den Berghe & Levrau, 2004). Jensen (1993) depicted that large corporate boards may be less efficient due to difficulties in solving the agency problem among the members of the board. As members of the board increase, they become less effective, because the coordination and process problems

are more acute, compared to the advantages of having more members on the board. Yermack (1996) presented that small boards of directors are more effective and that firms achieve higher market value. For instance, some authors depict a negative link between firm value and the board size (Eisenberg et al., 1998; Yermack, 1996). Thus, the effect of board size on corporate performance examines a trade-off between benefits and drawbacks (Garcia-Olalla & Garcia-Ramos, 2010).

H4: There is an inverse link between board size and corporate performance.

Another most analysed variable in the study of corporate governance is the independent directors, who are sometimes called outside directors. Hermalin and Weisbach (1991) supported that outside directors are more productive monitors and are an analytical checking instrument for managers; however, they postulate no significant link between corporate performance and outsiders' ratio on the board. Outsiders are perceived as a connecting instrument between the firm and its environment that may support the managers in the achievement of the different objectives of the corporate firms (Johnson, Daily & Ellstrand, 1996; Zahra & Pearce, 1989). This research study supports the resource dependency theory. Independent directors are known as powerful persons who take profit from their networks to increase the legitimacy, the reputation, and the stock of resources controlled by the company (Pfeffer, 1973; Pfeffer & Salancik, 1978). Independent directors increase supervision, introduce independent considerations in decision-making, and increase knowledge about the business. Some argue that large boards are less effective than small boards (Shaw, 1981; Jewell & Reitz, 1981; Olson, 1982; Gladstein, 1984; Lipton & Lorsch, 1992; Jensen & Meckling, 1976). The findings of empirical research studies, i.e., Yermack (1996) and Eisenberg et al. (1998), agree with the perception that corporate performance is raised by those firms whose boards are smaller in size.

H5: Independent directors make a positive impact on corporate performance.

DATA AND METHODS OF ESTIMATION

Data for computing the firm age, firm size, firm growth, and corporate performance has been selected from Information Technologies companies. The initial data sample is taken from the 270 Information Technologies corporate firms listed on the National Stock Exchange in the last nine years. Data is collected for the years 2010-2019. Simple random sampling is adopted in the selection of the nature of firms. Corporate performance is estimated by return on assets. Corporate

performance is the dependent variable in this research study and is measured by return on assets; this is also suggested by Lipton and Lorch (1992), Agrawal and Gort (1996), Kumar and Singh (2013), and Wu and Li (2015). This study takes firm age, firm growth, and firm size as independent variables. Board size and independent directors on a board are taken as control variables.

Operational Definitions of Selected Variables

Return on Assets: It is defined as Return on Asset Ratio = EBIT / Book value of total assets. The return on asset is described as EBIT between total assets, not taking into consideration the financial performance of the firm (Anderson & Reeb, 2003). EBIT is a conventional tool of measurement that does not include capital costs, i.e., it only takes the operating income and operating margins. [Dependent variable]

Firm Age (NLFA): Firm age is calculated by taking the natural log of the total years since the corporate firm was incorporated. [Independent variable]

Firm Growth (GROWTH): It is the firm growth in sales that is measured by the percentage of annual change in sales. Scherr and Hulburt (2001) explained that growth opportunities in the firm are calculated as sales of the current year / sales of the previous year. The firms which were prosperous in the past years were considered to bring or avail more growth opportunities shortly. [Independent variable]

Firm Size (NLTA): Firm size is calculated by taking the natural log of total assets on the closing date of the financial year of a corporate firm. [Independent variable]

Board Size (NLBM): Board size is calculated as the natural log of the total number of members present on the board of the corporate firm. [Control variable]

Independent Directors (ID/TBM): An independent director is also called the non-executive director of a company. Independent directors help increase corporate credibility and governance standards. An independent director does not have any kind of relationship with the company that may affect the independence of their judgment. There is no specific definition of an independent director provided by the Companies Act 1956. The concept of independent directors is gaining public attention as suggested by the Companies Act 2013. A separate criterion has been given for the companies to have an independent director. It is calculated by taking the proportion of independent directors on the board. [Control variable]

Analytical Technique

This study uses multiple fixed-effect regression model for data analysis, as it was also suggested by Agrawal and Gort (1996), Coad, Segarra and Teruel (2013), Hui, Ladzi, Jeatabadi, Kasim and Radu (2013), and Short and Keasey (1999). This study uses SPSS software.

Corporate Performance (ROA) = α + β1 (NLFA ROA) + β2 (GROWTH ROA) + β3 (NLTA ROA) + β4 (NLBM ROA) + β5 (ID/TBM ROA) + e ROA

Where, ROA is return on assets, NLFA is the natural log of firm age, GROWTH is firm growth (percentage of annual changes in sales), NLTA is the natural log of total assets, NLBM is the natural log of board members, ID/TBM is the proportion of independent directors on a board, and e is the error term.

RESULTS ANALYSIS AND DISCUSSION

Table 1 of the descriptive statistics provides detailed descriptive statistical results on the dependent and independent variables that are used in the empirical analysis of this study. The research findings show that the mean value of the firm age (NLFA) is 3.246, with a maximum and a minimum of 4.330 and 1.098, respectively, with a standard deviation and median of 0.530 and 3.258, respectively. The table also shows that the mean value of firm growth (measured by taking a percentage of annual changes in sales) in the Indian IT companies is 14.313, with a minimum and a maximum of −40.226 and 182.89, respectively, with a standard deviation and median of 25.922 and 9.677, respectively. The findings depict that, on average, firm size (NLTA) is 7.212, with a maximum and a minimum of 11.573 and 3.901, where the standard deviation and median are 1.738 and 7.010, respectively. The findings indicate that, on average, board size (measured by taking the natural log of board members) in the Indian IT companies is 2.208, with a maximum and a minimum of 2.708 and 1.609, respectively, where the standard deviation and median are 0.261 and 2.197, respectively. The mean value of the number of independent directors to total board members is 0.559, with a minimum and a maximum of 0.25 and 1, respectively, where the median is 0.545 and the standard deviation is 0.126. The mean value of return on assets is 0.153, with a maximum and a minimum of 1.339 and −0.789, respectively. The standard deviation and median of return on assets are 0.173 and 0.132, respectively.

As the result findings depicted in Table 2 show, there is a low degree of correlation between the dependent variable, which is measured by the corporate performance that is described

by return on assets, and all the independent variables (which are the potential determinants of corporate performance mechanisms), measured by firm age, firm growth, and firm size, and the two control variables, namely board size and number of independent directors on a board. There is a negligible relationship between the independent variables and the dependent variable. Most correlation coefficients of all variables, whether dependent, independent, or control variable, lie in the range of a very low degree of positive or negative correlation.

The result findings in Table 3 show that the multiple fixed-effect regression model is used. Here corporate performance was measured by the return on assets, which is the dependent variable, and firm age, growth, and size, which are the independent variables, and board size and number of independent directors on a board. This model depicts that there is a high degree of positive correlation between all independent variables and the dependent variable, as Multiple R is 0.821. This model is very significant in clarifying the changes in the dependent variable. The value of R-Square is 0.6423, which implies that all the independent variables clarify roughly up to 64% change in the dependent variable, i.e., corporate performance.

As per Table 4, the coefficient of firm age is 0.2100. This depicts that a unit increment in the firm age will cause a 0.2100 percentage rise in the return on assets (corporate performance) of IT companies in India. The positive sign shows the direct impact of firm age on return on assets. The T-test value is 2.524 and the probability value is 0.012. It indicates the direct and significant impact of firm age on return on assets. The research hypothesis is accepted. Prevost, Rao and Mahmud (2002) confirm that there is a direct and significant impact of firm age, CEO power, debt ratio, firm risk, and insider ownership on firm performance. Balik and Gort (1993) also provide supporting results that there is a positive impact of corporate firm age on the productivity and profitability of the corporate firm. In addition, this research study supports the importance of learning by doing, the theory given by Kenneth Arrow. Agrawal and Gort (1996) also support the result findings of the study and show that there is a positive and significant impact of firm size on the corporate firm performance. This study concludes that mature firms possess knowledge, abilities, and skills. This study points out the efficient human capital and financial resources in mature firms. The study conducted by Coad, Segarra and Teruel (2007) further confirms the findings of the results. It depicts the direct impact of firm age on financial firm performance. Hui, Ladzi, Jeatabadi, Kasim and Radu (2013) also show the same results as this study, which confirms the direct and significant impact of firm age on the profitability of the

corporate firms. This result supports the financial growth cycle model. It reflects the changes in financial needs and financing options with changes in firm size, firm age, and information. Matured, established, and experienced firms with more transparency help in gaining easy accessibility of public equity or long-term debt financing. The risk of a firm reduces with its age.

The coefficient of firm growth is 0.02. This depicts that a unit increment in firm growth will cause a 0.02 per cent rise in the return on assets (corporate performance) of IT companies in India. The positive sign shows the direct but insignificant impact of firm growth on return on assets. The T-test value is 0.721 and the probability value is 0.47. The research hypothesis is rejected. Since 2007-08, there was a wave of global recession all around the world. India, though not so affected, was surrounded by the after-effects of the recessionary situation. It is because of this reason that the growth of the firm factor is unable to make a positive impact on return on assets, and hence, on the corporate performance. The figures for sales growth show a mixed trend of increasing and decreasing values, and thus do not make any significant impact on return on assets. During a recessionary situation, the survival and continuation of IT companies are the main priorities. The research results are not consistent with the Marris growth maximization theory of the firm.

The coefficient of firm size is 0.251. This depicts that a unit increment in firm size will cause a 0.251 percentage rise in the return on assets (corporate performance) of IT companies in India. The positive sign shows the direct and significant impact of firm size on return on assets. The T-test value is 2.525 and the probability value is 0.012. The research hypothesis is accepted. The study conducted by Short and Keasey (1999) also gives a supporting explanation to the result findings. It depicts the positive and significant impact of larger firms on firm performance. This research study finding supports the pecking order theory of financial structure. Majumdar and Chhibber (1999) further confirm the result findings of the study, which states that larger firms are efficient and result-oriented, compared to small corporate firms. Papadogonas (2007) and Halil and Hasan (2012) both depict that there is a positive and significant impact of firm size on the profit rate of corporate firms, which confirms the results. In addition, the results support the economies of scale hypothesis. This study seconds the theory of 'liability of newness', which describes how young corporate firms face higher risks of failure compared to mature, old companies. Large firms are able to establish different contacts, either in the media or different businesses that provide informational benefits for the business. There is not only internal information, but also external information which is essential for increasing the profitability and productivity of corporate firms.

The coefficient of board size is −1.658. This depicts that a unit increment in board size will cause a 1.6584 percentage decline in the return on assets of IT companies in India. The minus sign shows the negative impact of board size on return on assets. The T-test value is −2.310 and the probability value is 0.05. It indicates the negative and significant impact of board size on return on assets. The research hypothesis is accepted. Hence, the research concludes that there is a negative and significant impact of board size on return on assets. This research finding is consistent with the agency theory. This study also confirms the results of Jensen (1993). It states that the coordination issues among board members is a major problem and overpowers the benefits of having more directors on the board. Further, Yermarck (1996) supports the research study result findings and concludes that there is an indirect link between firm value and the size of the board. Larger boards are unable to take effective prudent strategies and decisions because of clashes of views and ideas, so it can be concluded easily that there is a negative link between board size and return on assets. Agency problems aggravate when there are too many members on the board, as some may tag along as free riders. When there are more members on the board it generally develops into a symbolic role rather than completing its calculated function as part of management. The result findings support the stewardship theory. Stewardship theory stresses on smaller board sizes in the corporate firms, as a conflict between agents and principals will reduce as there are fewer views and suggestions in a smaller board. If the board has more members, it adds to the cost of the corporate firm, in terms of sitting fees and remuneration to the board members, inefficient monitoring, chances of manipulation, and fraud. If these expenses are more than the profitability of corporate firms, it will contribute negatively to the firm performance. It is a costly affair for corporate firms to maintain boards with a large number of directors. It becomes difficult to work in coordination, make decisions promptly, hold regular meetings, and chalk out plans efficiently, when a large number of members exist on the board of the company.

The coefficient of the independent directors on a board is 0.32. This depicts that a unit increment in firm growth will cause a 0.32 per cent rise in the return on assets (corporate performance) of IT companies in India. The positive sign shows the direct but significant impact of independent directors on return on assets. The T-test value is 3.575 and the probability value is 0.0004. The research hypothesis is accepted. This result finding agrees with the monitoring theory of agency model, which tells us that inclusion of more independent directors in the total board members will increase monitoring of management and make them accountable to act in the best interests of the shareholders and other stakeholders. Thus, it helps improve the financial performance of the corporate firm. These results match with the findings of Anderson and Reeb (2004), McKnight and Mira (2003), Vincent and Nicole (2010), and Pinteris (2002). Dechow et al. (1996) compared the proportion of independent directors between companies that violate GAAP (generally accepted accounting principles) to overstate their profits, and matched companies that do not violate GAAP. It is observed that violation of GAAP is related to fewer independent directors on the board. Beasley (1996) showed that fraudulent companies have significantly fewer independent directors on their board when compared to non-fraudulent companies.

CONCLUSION

This research examines the efficacy of firm structure as a tool for corporate governance. For this purpose, we analyse the effect of firm age, firm size, firm growth, board size, and independent directors of a board, on corporate performance. We apply a multiple fixed-effect regression model to test the hypothesis shown. After testing of this model, we come to the conclusion that there is a direct and significant impact of firm size, age, and independent directors on corporate performance. Board size has an inverse effect on firm performance. We took a sample of 270 Indian Information Technologies companies listed on the National Stock Exchange. Firm growth has a positive but insignificant impact on corporate performance.

In sum, our findings of the data analysis, as well as those of Garcia Olalla and Garcia Ramos (2010) point out that small boards and the appointment of more independent directors to a board are always more effective and efficient. Fama and Jensen (1993) stated that boards governed and dominated by independent directors or by outside directors are more observant in monitoring the decision-making behaviour of the corporate firm. This is the reason outside directors could protect the interest of shareholders well and efficiently, when compared to the inside directors in a company.

Our result findings are also consistent with the economies of scale model, as well as the financial growth cycle model. Profitability and low cost can be attained by corporate firms when they are established, mature, and big. Matured, established, and experienced firms with more transparency help in gaining easy accessibility of public equity or long-term debt financing. The risk of a firm reduces with its age.

Our result findings are also in support of economies of scale, risk bearing hypothesis, and theory of transaction costs. Economics of scale is generated when an enterprise is large and can take cost benefits either in terms of discounts, concessions, specialisation, or division of labour. As output increases, the average unit cost starts decreasing. Large

firms are more capable and have the survival ability at the time of recession as they have huge assets. Large firms also have sinking and contingency funds to deal with any uncertain changes in the business environment and maintain the minimum existence level. To solve any problem of large corporate firms, when new processes, new methods, and new technologies are discovered, the transaction costs are reduced, thus opening avenues for further revenue growth.

LIMITATIONS

This study has certain limitations. Firstly, our data were taken after the recessionary period, which makes the results a little dull, especially with respect to the growth of firms. Secondly, data were collected exclusively in India; therefore, it limits the chances of generalising our findings. Thirdly, data were taken only from the Information Technology companies, so comparisons cannot be shown on how these variables may react if taken from the real estate, manufacturing, construction, or pharmaceuticals sectors.

Table 1: Descriptive Statistics

	Mean	Median	Standard Deviation	Minimum	Maximum
NLFA	3.246	3.258	0.530	1.098	4.330
GROWTH	14.313	9.677	25.922	−40.226	182.89
NLTA	7.212	7.010	1.738	3.901	11.573
NLBM	2.208	2.197	0.261	1.609	2.708
ID/TBM	0.559	0.545	0.126	0.25	1
ROA	0.153	0.132	0.173	−0.789	1.339

Table 2: Correlation Matrix

	NLFA	NLTA	GROWTH	NLBM	ID/TBM	ROA
NLFA	1					
NLTA	0.087	1				
GROWTH	−0.009		1			
NLBM	−0.054			1		
ID/TBM	0.013	0.104	0.088	−0.176	1	
ROA	0.078	0.057	−0.023	0.045	0.081	1

Table 3: Multiple Fixed-Effect Regression

Multiple R	R-Square	Adjusted R-Square	Standard Error
0.821	0.643	0.630	27.3

Table 4

	Coefficient	Probability Value	T-Statistic Value
NLFA	0.2100	0.012	2.524
GROWTH	0.02	0.47	0.721
NLTA	0.251	0.012	2.525
NLBM	−1.658	0.05	−2.310
ID/TBM	0.32	0.0004	3.575

REFERENCES

Aduda, J., Kiragu, P., & Ndwiga, J. (2013). The relationship between agency banking and financial performance of commercial banks in Kenya. The University of Nairobi.

Agarwal, R., & Gort, M. (1996). The evolution of markets and entry, exit, and survival of firms. *The Review of Economics and Statistics, 78*(3), 489-498.

Akinyomi, O. J., & Olagunj, A. (2013). Effect of firm size on profitability: Evidence from Nigerian manufacturing sector. *Prime Journal of Business Administration and Management, 3*(9), 1171-1175.

Aldrich, H., & Auster, E. R. (1986). Even dwarfs started small: Liabilities of age and size and their strategic implications. *Research in Organizational Behaviour, 8,* 165-186.

Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and cost of debt. *Journal of Accounting and Economics, 37*(3), 315-342.

Balik, B. H., and Gort, M. (1993). Decomposing learning by doing in new plants. *Journal of Political Economy, 101*(4), 561-583.

Barroso Castro, C., Villegas Perinan, M. M., & Perez-Calero, L. (2010). Son efectivos los consejos de administracion? La eficacia del consejo y los resultados de la empresa. *Investigaciones Europeas de Direccion y Economia de la Empresa, 16,* 107-126.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of directors composition and financial statement fraud. *The Accounting Review, 71,* 443-465.

Beck, T., Demirguc-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to growth: Does firm size matter? *The Journal of Finance, 60*(1), 137-177.

Bennedsen, M., Kongsted, H. C., & Nielsen, K. M. (2008). The casual effect of board size in the performance of small and medium-sized firms. *Journal of Banking and Finance, 32,* 1098-1109.

Bercovitz, J., & Mitchell, W. (2007). When is better? The impact of business scale and scope on long-term business survival, while controlling for profitability. *Strategic Management Journal, 28*(1), 61-79.

Coad, A., Segarra, A., & Teruel, M. (2013). Like milk or wine: Does firm performance improve with age? *Structural Change and Economic Dynamics, 24,* 173-189.

Dalton, C. M., & Dalton, D. R. (2005). Board of directors: Utilizing empirical evidence in developing practical prescriptions. *British Journal of Management, 16*(1), 91-97.

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal, 42,* 674-686.

Forbes, D. P., & Milliken, F. (1999). Cognition and corporate governance: Understanding board of directors as the strategic decision: Making groups. *Academy of Management Review, 3,* 489-505.

Garcia-Olalla, M., & Garcia-Ramos, R. (2010). *Family ownership, structure, and board of director's effectiveness: Empirical evidence from European firms.* In 9th Annual IFERA Conference Lancaster, United Kingdom.

Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal, 22,* 1087-1111.

Halil, E. A., & Hasan, A. K. (2012). The effect of firm size on profitability: An empirical Icelandic firm. *Bifrost Journal of Social Science, 1,* 33-42.

Hermalin, B. E., & Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management, 20,* 101-112.

Holtz, L., & Neto, A. S. (2014). *Effects of board of directors' characteristics on the quality of accounting information in Brazil* (vol. 25, no. 66, pp. 255-266). Paper Presented at the VII Anpcont Congress, Fortaleza, CE, Brazil, R. Cont. Fin. – USP, Sao Paulo.

Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics, 3*, 305-360.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance, 48,* 831-880.

Johnson, J. L., Daily, C. M., & Ellstrand, A. E. (1996). Boards of directors: A review and research agenda. *Journal of Management, 22*, 409-438.

Kesner, I. F., Victor, B., & Lamont, B. T. (1986). Board composition and the commission of illegal acts: An investigation of Fortune 500 companies. *Academy of Management Journal, 29(*4), 789-799.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review, 11*, 189-205.

Lipton, M., & Lorsch, J. (1992). A modest proposal for improved corporate governance. *Business Lawyer, 48*, 59-77.

Majumdar, S. K., & Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy on aspect of corporate governance. *Public Choice, 98*, 287-305.

Mishra, C. S., & Nielsen, J. F. (2000). Board independence and compensation policies in large bank holding companies. *Financial Management Association, 29*(3).

Mutlua, C. C., Essenb, M. V., Peng, M. W., Sabrina, F. S., & Durane, P. (2018). Corporate Governance in China: A meta-analysis. *Journal of Management Studies.*

Papadogonas, T. A. (2007). The financial performance of large and small firms: Evidence from Greece. *International Journal of Financial Service Management, 2*(12), 14-20.

Pfeffer, J. (1973). Size, composition, and function of hospital boards of directors: A study of organization environment linkage. *Administrative Science Quarterly, 18*, 349-364.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective.* New York: Harper and Row.

Prevost, A. K., Rao, R. P., & Hossain, M. (2002). Determinants of board composition in New Zealand: A simultaneous equations approach. *Journal of Empirical Finance, 9*(4), 373-397.

Raheja, C. G. (2005). Determinants of board size and composition: A theory of corporate boards. *Journal of Financial and Quantitative Analysis, 40,* 283-306.

Risheh, K. A., & Al-Saeed, M. (2012). The impact of good corporate governance practices on financial reporting quality: Empirical evidence from Jordanian listed companies. *Corporate Ownership and Control Journal, 9*(4), 178-186.

Schiffer, M., & Weder, B. (2001). Firm size and the business environment: Worldwide survey results. *World Bank Publications, 43.*

Scherr, F. C., & Hulburt, H. M. (2001). The debt maturity structure of small firms. *Financial Management, 30,* 85-11.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance, 52,* 737-783.

Short, H., & Keasey, K. (1999). Managerial ownership and the performance of firms: Evidence from the UK. *Journal of Corporate Finance, 5,* 79-101.

Star, A. D., & Massel, M. Z. (1981). Survival rates for retailers. *Journal of Retailing, 57*(2), 87-99.

Van den Berghe, L. A. A., & Levrau, A. (2004). Evaluating boards of directors: What constitutes a good corporate board? *Corporate Governance: An International Review, 12*, 461-478.

Vincent, O. O., Peter, O. K. O., Ogutu, M., & Eric, M. (2015). Board composition and financial performance: Empirical analysis of companies listed at the Nairobi Securities Exchange. *International Journal of Economics and Financial Issues, 5*(1), 23-43.

Williamson, O. E. (1967). Hierarchical control and optimal firm size. *Journal of Political Economy*, 123-135.

Wu, X., & Li, H. (2015). Board independence and the quality of board monitoring: Evidence from China. *International Journal of Managerial Finance, 11*(3), 308-328.

Yermack, D. (1996). Higher valuation of companies with a small board of directors. *Journal of Financial Economics, 40,* 185-212.

Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management, 15*, 291-334.