

**The Impact Of Corporate Governance On The Financial Performance Of Listed Companies–Empirical Evidences From India Using Fuzzy Set Qualitative Comparative Analysis**

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**ABSTRACT**

In a world of globalization, the concept of corporate governance has occupied an important place. Today, companies are demonstrating high quality governance by attracting foreign investors, global fund raising and by operating in the international arena. The key principle for success is to ensure that growth is sustainable and inclusive. Out of various critical aspects of corporate governance, the current study aims at investigating the corporate governance practices followed by Indian companies by taking Clause 49 (Revised) of the SEBI listing agreement as the benchmark. Clause 49 has brought out a landmark transformation to improve the quality of disclosure of the Indian companies.

This study examined the relationship between corporate governance and financial performance for 85 firms listed on the Bombay Stock Exchange (BSE). Financial performance of the firm is measured with financial ratios viz. Return On Capital Employed, Return On The Equity, Net Profit Margin and Return On Assets. The analysis was enhanced using complementary linear and non-linear multiple regression analysis. The estimated relationship between corporate governance and the firms was derived using FsQCA (Fuzzy Set Qualitative Comparative Analysis). This study will be useful to investors, practitioners and other stakeholders who are interested with a firm's operations performance.

**Key words:** Corporate Governance, Financial performance, Fuzzy Set Qualitative Comparative Analysis, Listed companies

**INTRODUCTION**

Since the second half of the 19<sup>th</sup> century, most modern industries and services in India have been structured under the English common law framework of joint stock limited liability. Despite this long corporate history, the term "corporate governance" remained unknown until 1993. It came to the fore at that time because of a spate of corporate scandals that occurred during the first flush of economic liberalization (Omkar Goswami, 1999).

In April 1998 the country produced one of the first substantial codes of best practice in corporate governance in Asia. It was published not by a governmental body, a securities regulator or a stock exchange, but by the Confederation of Indian Industries (CII), the country's peak industry body.

The following year, the government appointed a committee under the leadership of Kumar Mangalam Birla, Chairman, Aditya Birla Group, to draft India's first national code on corporate governance for listed companies. Many of the committee's recommendations were

mandatory, closely aligned to international best practice at the time and set higher governance standards for listed companies than most other jurisdictions in Asia. The Indian Code of Corporate Governance, approved by the Securities and Exchange Board of India (SEBI) in early 2000, was implemented in stages over the following two years and led to changes in stock exchange listing rules, notably the new Clause 49 in the Listing Agreement. (Retrieved from Shodhganga)

Further reforms have been made over the past decade to modernise both company law and securities regulations. The Companies Act, 1956 has been amended several times, in areas such as postal ballots and audit committees, while committees were appointed in 2002 and 2004 to recommend improvements. The latter committee, chaired by Dr J. J. Irani, was charged with undertaking a comprehensive review of the 1956 Act and its recommendations led to a rewrite of the law and a new Companies Bill, 2008. (This bill was resubmitted as the Companies Bill, 2009 following national elections in 2009. It is still waiting to pass Parliament).

The concept of corporate governance hinges on total transparency, integrity and accountability of the management and the board of directors. The importance of Corporate Governance lies in its contribution both to business prosperity and to accountability. In the age of globalization, global competition, good corporate governance helps as a great tool for corporate bodies (Anupam Jain, 2018).

## **Impact Of Corporate Governance On Financial Performance Of Companies**

Corporate performance is an important concept that relates to the way and manner in which financial resources available to an organization are judiciously used to achieve the overall corporate objective of an organization. Which in-turn, keeps the organization in business and relates a greater prospect of opportunities. Corporate governance provides a structure that works for the benefit of the firm and can help in increasing firm's performance by reducing agency problem. A good corporate governance is a fundamental necessity to keep on running a firm successfully. It has long played a crucial role for enhancing the since the adoption of corporate governance code of conducts, there has been a steady trend towards implementing good governance structures both in public and private sectors. The introduction of corporate governance practices in India is aimed at providing a mechanism to improve the confidence and trust of investors in the management and promote economic development of the country.

## **Profitability As A Measure On Financial Performance Of The Companies**

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.(Will Kenton, 2019).

A company's bottom line profit margin is the best single indicator of its financial health and long-term viability. Investors are constantly searching for one golden key measurement that can be obtained by looking at a company's financial statements for evaluating a stock, but it is simply not that easy. To accurately evaluate the financial health and long-term sustainability of a company, a number of financial metrics must be considered. Four main areas of financial health that should be examined are liquidity, solvency, profitability and operating efficiency. However, of the four, likely the best measurement of a company's health is the level of its

profitability because the companies can indeed survive for years without being profitable, operating on the goodwill of creditors and investors, but to survive in the long run, a company must eventually attain and maintain profitability. Thus profitability is used as the best metric for evaluating the financial performance of the companies.

### **RATIONALE OF THE STUDY**

The need for corporate governance has arisen because of the increasing concern about the non-compliance of standards of financial reporting and accountability by boards of directors and management of corporate inflicting heavy losses on investors. This study has made an attempt to analyse the performance of large cap and mid-cap companies, on a firm's performance. This study will benefit investors, decision makers, regulators and researchers as well as assist the policy makers to set new and improved standards for best practices.

A well-defined corporate governance structure will ensure reduction of funds costs, easy funds accessibility, improved sound corporate firm performance through stakeholders' support for greater firm value, and enhanced investment rate of return (Brown and Caylor, 2009).

### **LITERATURE REVIEW**

A review of a variety of literature was meticulously done. Since the concept of corporate governance gained momentum and has an impact on the financial performance of the companies, the literature which explained the relationship between corporate governance and a firm's performance were considered for review.

**Gupta et al (2003)** analyzed the corporate governance reports of 30 companies listed in BSE for the year 2001-02 and 2002-03. Their research found that the reporting practices of the companies vary to a large extent. Also it was found that in some cases mandatory requirements as per Clause 49 have not been adhered to. **Hossain Mohammed (2007)** analysed the level and extent of corporate governance disclosure of the banking companies in India. The study covered 38 banks and the results revealed that that assets, ownership and financial performance variables are significant and other variables such as age, board composition are insignificant in explaining the level of corporate governance disclosure. **Izyani Wan and Zunaidah (2010)** examined the relationship between corporate governance mechanism and extent of disclosure for listed companies in Malaysia. Their study addresses two issues, (a) Level of corporate governance disclosure by listed companies in Malaysia and (b) To what extent corporate governance affects the company disclosure. The study revealed that that the companies with more family members sitting on the board significantly have lower levels of disclosure in their annual reports. **Kota, H.B., and Tomar, S. (2010)** examined the effect of corporate governance practices on the performance of 100 mid-sized firms in India between 2005 and 2007. When Tobin's Q was used as a measure of financial performance, it was found that the ratio of non-executive directors to total directors had no significant relationship with the performance. **Anurag Pahuja and B S Bhatia (2010)** analysed the determinants of corporate governance disclosure of 50 listed Indian companies. The study revealed that there is a considerable gap in the sphere of extent, quantum and quality of disclosure made by companies in their annual reports. The study concluded that there is a substantial scope for improvements in the corporate governance disclosure practices. **Senan Neeti (2011)** in her research paper analysed the corporate governance practices of public and private sector enterprises in India. The study focused on disclosure practices in the annual reports of firms

for the year 2008-09 of 77 listed Indian companies by constructing Corporate Governance Disclosure Score. The results of the study revealed that private sector companies adhere to higher standards of corporate governance disclosure than public sector companies. **Smriti Sharma, Praveen Saxena and Nitin Kishore Saxena (2013)** made an attempt to examine and evaluate the level of the fulfilment towards the various principles of 30 BSE Sensex companies for the year 2010-11. The analysis revealed that the disclosure practice made by Indian company as per Clause – 49 are to a certain extent capable of meeting the various principles of OECD on Corporate Governance. The Study depicted that the principle on Role of Stakeholders in Corporate Governance has attained greater significance. The principle on Board Responsibilities and Disclosure and Transparency needs to be more emphasised by Indian companies for effective Corporate Governance practice at global level. **Sahu T. K. and Manna A. (2013)** empirically investigated the effect of corporate board composition and board meetings on performance of 52 Indian manufacturing companies listed in Bombay Stock Exchange over a period of 5 years (2006-2011). They represented Board composition by board size, number of executive directors, board independence, and Chairman's identity. Corporate performance is measured through Net sales, Net Profit, Return on Capital Employed, Earning per share, Tobin's Q, Economic value added and Market value added. Multiple regression Ordinary Least Square model results indicated that board size and board meetings have a positive impact on corporate performance whereas the independence of the board and presence of non-executive chairman in the board has negative impact. **Edward Kobuthi, Peter K'Obonyo and Martin Ogutu (2018)** in their study established the effect of corporate governance on performance of firms listed on the Nairobi Securities Exchange (NSE). The authors developed a corporate governance index as a proxy for corporate governance based on the seven attributes of the Capital Markets Authority (CMA) draft code of corporate governance practices for public listed companies in Kenya. The guidelines cover board operations and control, rights of shareholders, stakeholder relations, ethics and social responsibilities, accountability, risk management and internal audit, transparency and disclosure and supervision and enforcement. The study found a statistically significant relationship between corporate governance and non-financial performance of firms listed on the Nairobi Securities Exchange confirming that organizations can enhance their performance by implementing good corporate governance, specifically those attributes of good corporate governance that matter. **Sanjeev Sharma and Mohinder Singh (2018)** in their research paper made an attempt to examine the relationship between internal governance structures and financial performance of listed Indian firms during subprime crisis. Based on the sample of 121 listed firms (Bombay Stock exchange), the study observed that firms with higher level of board activism, higher disclosure standards, effective audit committee, well protected rights of minority shareholders and foreign ownership have perform better during crisis. **Anuj Aggarwal and Aditya Goel (2018)** in their research paper evaluated the internal stakeholders' perceptions of the current corporate governance regime in India. In order to analyze the internal stakeholder's perception towards current corporate governance regime, regulations and issues, a structured questionnaire has been prepared covering various aspects of corporate governance like components and performance implications of corporate governance in India, major issues in corporate governance, corporate governance strategies and practices, key players etc. The majority of the respondents perceive that there is a need to make the internal and external corporate governance better, enhance the standards of accounting, audit and disclosures, prohibit or check related party transactions, improve relation between board and management, publicize corporate governance ratings of companies, strengthen stock exchanges to ensure transparency, improve access to new capital etc. **Aswathy Mohan and S. Chandramohan (2018)** in their research paper studied the

impact of corporate governance structure on firm performance, the study used a panel data OLS regression model for a sample of 30 firms quoted in the Bombay Stock Exchange. The results of the panel data analysis show that the CG factor, namely CEO duality and board size has a significant negative impact on firm performance whereas board composition revealed no significant impact on firm performance. It reveals that there is a need to undertake the monitoring process to lead to superior firm performance and indicates the need for firms to separate the post of CEO and Chair in order to ensure optimal performance. The results also suggest the leverage and asset turnover to have a significant positive impact on firm performance.

**Shikha Mital and Anjala (2015)** empirically investigated in the area of corporate governance and firm performance by highlighting the relationship between the corporate governance mechanisms (board size, board composition, frequency of board meetings, CEO duality) and firm performance. Their research findings were contradictory and inconsistent.

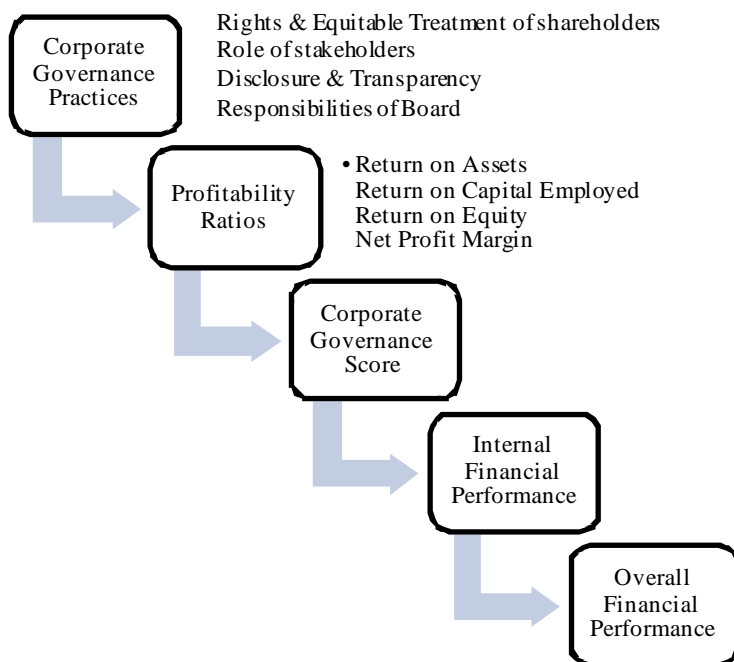
The literature review revealed that some studies had a strong positive association while some reported negative relationship between corporate governance mechanisms and firm performance while others did not find any significant relationship between the two.

## **CONCEPTUAL FRAMEWORK**

The conceptual model depicted in Figure1 presents a schematic picture of the researchers presumed perceptions of existing relationship among the various variables of the study. The framework captures the linkage in the literature. The model suggests relationship between corporate governance – as independent variable and firm performance as a dependent variable.

As shown in the model corporate governance has influence on a firm's performance. Different researchers have conceptualized corporate governance and assessed the constructs differently resulting to different measurements and firm performance implications. The relationship between corporate governance constructed and performance was under study to shed light on the aspects that are most crucial in an Indian context specific situation.

**Figure 1: Conceptual Framework of the study**



**DATA AND RESEARCH METHODOLOGY**

**Objectives Of The Study**

- To examine the nature of corporate governance structure of select listed large cap and mid- cap companies in India.
- To analyse the relationship and effect of corporate governance structure on company performance for select listed large cap and mid –cap companies in India listed in the BSE (Bombay Stock Exchange)

**Research Hypothesis**

Based on the objectives of the study, the following hypothesis are framed:

H<sub>0</sub> : There is no significant relationship between corporate governance structure and performance of large cap and mid-cap companies in India.

H<sub>01</sub> : There is significant difference in the effect of corporate governance structure on performance of large cap and mid-cap companies in India.

**Sample Selection**

For the purpose of this study, a total of 85 sample companies listed on Bombay Stock Exchange (BSE) has been considered for the analysis. For the selection of sample of Indian listed companies, the top 40 companies are large cap companies with more than Rs. 10,000 cr market capitalisation and the remaining top 45 companies are mid-cap companies with market capitalisation ranging from Rs.2000 to 10,000 cr. The companies with either large cap or mid-cap market capitalisation are selected because these are more likely to have the resources and motivation to take advantage of the opportunity to adopt good corporate governance practices. Data has been gathered from companies’ financial reports, quarterly reports and other documents.

**Tools For Analysis**

In order to analyse the various research objectives, SPSS(Statistical Package for Social Science) and FsQCA(Fuzzy Set Qualitative Comparative Analysis) are employed by applying the techniques of Ordinary Least Square Method and Poisson Method. From the financial statements of the sample, the following parameters / profitability ratios are calculated in order to analyse the corporate performance:

- Return on Assets
- Return on Capital Employed
- Return on Equity
- Net Profit Margin.

**Measuring Corporate Governance Score**

The scorecard comprised a total of 30 questions. These questions are divided into four categories corresponding to the respective OECD (Organisation for Economic Co-operation and Development) principles. Each category has a different number of questions that address the relevant issues related to the specific OECD principle. The weightages assigned to each category are based on the number of questions in the category and the relative importance of the questions in that category in the Indian corporate governance framework.

It was determined that the quality of corporate governance practices referred to in each question should be recognised on three levels:

- **2 points:** If the company follows global best practices for that element of corporate governance
- **1 point:** If the company follows reasonable practices or meets the Indian standard for that element of corporate governance
- **0 point:** If the company needs to improve in that element of corporate governance

**Table 1: Calculation of Corporate Governance Score**

Category Weights	Number of questions	Maximum attainable score	Category weight (%)
Rights & Equitable Treatment of shareholders	9	18	30
Role of stakeholders	3	6	10
Disclosure & Transparency	9	19	30
Responsibilities of Board	9	18	30
<b>TOTAL</b>	<b>30</b>	<b>100</b>	

Aggregate score of all questions under category

$$\text{Category Score} = \frac{\text{Aggregate score of all questions under category}}{\text{(Number of applicable questions in category x 2)}} \times \text{Category Weight}$$

$$\text{Total Score} = \text{Category Score1} + \text{Category Score2} + \text{Category Score3} + \text{Category Score4}$$

**Impact on profitability**

Four models are formulated to study the impact on profitability. Return on Assets, Return on Capital Employed, Return on Equity and Net Profit Margin are the four dependent variables of profitability while the others four factors are considered as independent variables and are used in various combinations. The regression equations used are:

$$Y (\text{ROA}) = \beta_1 + \beta_2\text{RE}_+ \beta_3\text{RS}_+ \beta_4\text{DT}_+ \beta_5\text{RB}_+ \beta_6\text{ROCE}_+ \beta_7\text{ROE}_+ \beta_8 \text{NPM}$$

$$Y (\text{ROCE}) = \beta_1 + \beta_2\text{RE}_+ \beta_3\text{RS}_+ \beta_4\text{DT}_+ \beta_5\text{RB}_+ \beta_6\text{ROA}_+ \beta_7\text{ROE}_+ \beta_8 \text{NPM}$$

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$$Y (\text{NPM}) = \beta_1 + \beta_2\text{RE}_+ \beta_3\text{RS}_+ \beta_4\text{DT}_+ \beta_5\text{RB}_+ \beta_6\text{ROA}_+ \beta_7\text{ROCE}_+ \beta_8 \text{ROE}$$

Where:

ROA = Return on assets

ROCE = Return on capital employed

ROE = Return on equity

NPM = Net profit margin

RE = Rights and Equitable treatment of shareholders

RS = Role of stakeholders

DT = Disclosure and Transparency

RB = Responsibility of board

## **RESULTS AND DISCUSSIONS**

### **Performance Analysis Of Large Cap Companies**

The analysis of the performance of Large Cap Companies by applying Ordinary Least Squares Method revealed the following results:

- The rights of shareholders and Disclosure & Transparency are found to have major and negative impact on ROA, so the shareholders must have a good degree of control and influence over the company's management selection and make sure that all the relevant information are equally accessible to all the stakeholders.
- Frequently scheduled meetings have resulted in negative ROCE. It generates more costs including managerial time and director's fees. This shows that the number of meetings should not be more as it leads to poor performance.
- The ROE can be maximised by concentrating more on disclosure and board. This shows that the principle on Disclosure and Transparency in Corporate Governance has attained greater significance. The principle of Board Responsibilities and Role of Stakeholders needs to be more emphasised by Indian companies for effective Corporate Governance practice at global level.
- The board and role of stakeholders have negative impact on net profit margin which shows that larger organization which already have a high average board size, do not gain much if an additional board member joins.
- Higher profit margin companies are expected to have better rating of corporate governance.
- Board diversity has a positive influence on overall performance of large cap companies.
- Most of the large cap companies give importance for Corporate Social Responsibility (CSR) activities which provide benefits to the firm, but they are unrelated to financial performance.
- Large cap companies have effective policies to address the health, safety and welfare of their employees.

**Table 2: Analysis Of Large Cap Companies – Ordinary Least Square**

COEFFICIENTS OF INDEPENDENT VARIABLES	RETURN ON ASSETS	RETURN ON CAPITAL EMPLOYED	RETURN ON EQUITY	NET PROFIT MARGIN
<b>RB</b>	0.247	-0.572	0.357	-36.114
<b>DT</b>	-0.489	0.353	0.809	16.068
<b>RS</b>	0.340	-0.917	-0.019	-40.610
<b>RE</b>	-0.138	0.293	-0.047	10.937
<b>NPM</b>	0.006	-0.014	0.006	410.464
<b>ROE</b>	0.265	0.423	-24.332	13.469
<b>ROCE</b>	0.303	5.929	0.316	-25.763
<b>ROA</b>	6.649	1.136	0.742	43.265

The analysis of the performance of Large Cap Companies by applying Poisson Analysis revealed the following results:

- The value of Rights & Equitable treatment and Disclosure & Transparency have value less than 1. This implies that these two variables will lead to decrease in the ROA by 1% for every one point.
- Nearly 6% increase in the ROA is because of the board performance. This shows that higher the board performance higher will be the ROA.
- Nearly 1% decrease in ROCE for every one point in the Corporate governance score is due to the board performance. There should be more responsible behaviour by corporate boards and protect the interests of the shareholder
- For every 1% increase in the ROA and NPM results in the 6.7% and 1% increase in the ROE.
- Most of the factors have value more than 1 which indicates a positive relationship with ROE. This shows that most of the large cap companies have increasing ROE every year.
- For every one point increase in the disclosure score in corporate governance, there will be 5.4% increase in NPM.
- More number of meetings and other operational cost will reduce the profit.

**Table 3: Analysis Of Large Cap Companies – Poisson Analysis**

COEFFICIENTS OF INDEPENDENT VARIABLES	RETURN ON ASSETS	RETURN ON CAPITAL EMPLOYED	RETURN ON EQUITY	NET PROFIT MARGIN
<b>RB</b>	1.063	0.977	1.036	0.878
<b>DT</b>	0.937	1.010	1.055	1.054
<b>RS</b>	1.072	0.991	1.036	0.925
<b>RE</b>	0.983	1.007	0.979	0.994
<b>NPM</b>	1.000	0.999	1.000	75.289
<b>ROE</b>	1.031	1.015	0.868	1.002
<b>ROCE</b>	1.020	7.282	1.005	0.949
<b>ROA</b>	3.379	1.071	1.067	1.181

**Performance Analysis Of Mid Cap Companies**

The analysis of the performance of Mid Cap Companies by applying Ordinary Least Squares Method revealed the following results:

- The disclosure and board have negative impact on ROA but it is insignificant. Though it is insignificant it is necessary for the companies to have proper board structure to manage their assets.
- The rights & equitable treatment of the shareholders have negative impact on ROCE.
- These companies need to efficiently utilize all the available capital to generate additional profits to the shareholders and that all the related party transactions are to be dealt by the non-conflicted board members.
- The Return on equity is found to be negative as the board performance is less.
- ROCE has significant positive impact on ROE which shows that more the return on capital employed more will be return on equity.
- The Net profit margin is found to be negative as the capital is not properly employed and not foreseen the risk of the company.
- The board did not meet sufficiently to exercise proper oversight which has a negative influence in the financial performance of the companies.
- The whistle blower mechanism for stakeholders is not proper in these companies which reduces number of new investors for the company.
- These companies have effective policies to address the health, safety and welfare of their employees. but are unrelated to financial performance.
- Most of the mid cap companies has not disclosed their succession plan for its directors and senior leadership.
- The training, development and orientation programs have been conducted properly.
- The whistle blower mechanism for stakeholders is not proper in these companies which reduces number of new investors for the company.
- These companies have effective policies to address the health, safety and welfare of their employees but are unrelated to financial performance.

**Table 4: Analysis Of Mid Cap Companies – Ordinary Least Square**

COEFFICIENTS OF INDEPENDENT VARIABLES	RETURN ON ASSETS	RETURN ON CAPITAL EMPLOYED	RETURN ON EQUITY	NET PROFIT MARGIN
<b>RB</b>	-0.537	0.578	-0.174	1.269
<b>DT</b>	-0.364	-0.692	1.012	0.036
<b>RS</b>	0.124	1.119	-0.553	-0.634
<b>RE</b>	0.140	-0.798	0.556	-0.264
<b>NPM</b>	0.185	-0.101	-0.059	-10.730
<b>ROE</b>	0.225	0.665	-23.603	-0.283
<b>ROCE</b>	0.246	11.674	0.529	-0.385
<b>ROA</b>	15.861	0.665	0.483	1.905

The analysis of the performance of Mid Cap Companies by applying Poisson Analysis revealed the following results:

- All the financial parameters have positive and significant impact on Return on Assets.
- This shows that any increase in ROCE, ROE and NPM increase the Return on assets by 4%.
- Role of stakeholders has major impact on ROCE. So the companies must satisfy the stakeholders to have positive impact on ROCE. Any point increase in role of stakeholders result in the 12.2% increase in ROCE.
- Rights and disclosure have significant and positive impact on Return on Equity.

- Therefore the companies must give adequate rights to shareholders and must also frame policies and procedures to facilitate disclosures of conflicts of interest by stakeholders.
- Every one percent increase in the value of ROA there will be 3.5% increase in Return on equity.
- Board has significant impact on Net profit margin. Any increase in the board points results in the 8% increase in NPM. This shows that more the involvement of board, better will be their profit.

**Table 5: Analysis Of Mid Cap Companies – Poisson Analysis**

COEFFICIENTS OF INDEPENDENT VARIABLES	RETURN ON ASSETS	RETURN ON CAPITAL EMPLOYED	RETURN ON EQUITY	NET PROFIT MARGIN
RB	0.918	1.019	0.980	1.089
DT	0.993	0.986	1.097	0.992
RS	1.012	1.122	0.962	0.908
RE	0.990	0.937	1.041	0.992
NPM	1.020	0.996	0.996	3.979
ROE	1.043	1.049	0.690	0.985
ROCE	1.018	6.238	1.029	0.973
ROA	19.176	1.040	1.035	1.130

**Fuzzy Set Qualitative Comparative Analysis (fsQCA)**

The analysis was performed using fsQCA 2.5 software. The first step consisted of calibrating the conditions and outcome. Calibration is necessary when performing fsQCA. Calibration requires the definition of three observation points: 0.05 to indicate full non-membership to the set, 0.5 to indicate the point of maximum ambiguity, and 0.95 to indicate full membership to the set. After calibration, the truthtable must be built to display sample case distributions for all possible combinations of causal conditions.

FsQCA allows researchers to find multiple pathways to an outcome. The procedure uses the Quine-McCluskey algorithm to logically reduce the configurations. The configurations’ mean for the outcome is weighted by the membership in each configuration. This value is tested and reported against the mean as weighted by the maximum value of the other configurations. Standard tests are performed between each configuration’s y consistency (inclusion in y) versus its n consistency (inclusion in not-y, or 1-y). Non-significant results (to 0.1 level) are discarded. This method requires reasoning about how each causal set is expected to contribute to the result. The alternatives are presence, absence, or both. It suggests 0.80 as the low bound for a high score in the outcome. Therefore, discarded any solution with a consistency of less than 0.80 and calculated the intermediate solution because the assumptions that were made for the parsimonious solution might not be justified. Intermediate solutions use counterfactuals to simplify the complex solution without making unjustified assumptions. This procedure requires reflection upon how each causal set is expected to contribute to the outcome. The alternatives are presence, absence, or both. The solution term in the truth table shows the relationship between sets of conditions and the outcome.

**The following are the findings arrived from large cap companies:**

- The higher board involvement and board diversity have positive influence on Return on assets.
- The combination of conditions indicates a direct relationship between disclosure and ROCE.
- Board and Net profit margin have inverse relationship. Frequently scheduled meetings generate costs, including managerial time, travel expenses, administrative support and director's meeting fees.
- Firms that confer a great deal of rights to their shareholders shows a higher level of profitability (reflected by the Return on Equity), a higher level of operating efficiency (represented by the Return on Assets).

### **The following are the findings arrived from midcap companies:**

- The combination of conditions indicates all the factors equally contribute to maximise the Return on assets.
- The role of stakeholders have a significant impact Return on capital employed (ROCE) as two paths indicates the relationship. This shows that mid cap companies have an effective policies for the stakeholders.
- Board and disclosure have direct relationship with Return on equity. The firm's board with sufficient skills, competence and expertise shows higher return on equity.
- The companies which foresees the risk and manage their expenses have higher Net profit margin.

### **LIMITATIONS AND SUGGESTION**

This study has certain limitations which offer potentially fruitful further research opportunities. It emphasizes on the Rights and Equitable treatment, Role of stakeholders, Disclosure and Transparency and Responsibility of the board and its impact on the financial performance of selected large cap and mid-cap companies. To measure the company performance other market-based accounting measures can also be considered.

It is highly recommended that further research should focus on taking control variables on the financial performance of the companies listed in India. Furthermore, a comprehensive understanding of corporate governance structures and their relations with company performance has the potential to assist practitioners, both policy makers and researchers to improve the governance mechanism in emerging economies like India.

### **CONCLUSION**

This study focused on analyzing the effect of corporate governance structure and its association with financial performance of listed companies. Rights and Equitable treatment, Role of stakeholders, Disclosure and Transparency and Responsibility of the Board were considered as the measures of corporate governance structure, whereas ROA, ROCE, ROE and NPM were taken as the measure of financial performance.

The findings of this study revealed that there is significant effect of corporate governance structure on the performance of both large cap and mid-cap companies listed in India. The results show that differences in corporate governance practices are reflected in the actual performance of companies. It makes two important contributions to the business finance literature. First, it highlights the value of using multiple empirical techniques to increase the

robustness of results. It also underlines the limitations of traditional multiple OLS (Ordinary Least Squares) Regression Analysis. The results suggest that non-linear techniques (Poisson Regression) and fsQCA provide deeper empirical insight. While regression analysis (OLS or Poisson) offers unidirectional averages, fsQCA highlights an additional path to increase the returns. The use of both methods is useful for understanding complex relationships. Second, this study was based on agency theory, which provides the theoretical foundations that we used to study the link between corporate governance and financial performance. The lessons learned from this study can help practitioners (CFOs and CEOs) design corporate financial strategies.

The achieved results underline the preponderance of corporate governance. The demonstration that, in some cases, the goodness of corporate governance allows to reach an outstanding performance is a crucial result for investors and policymakers.

The best-performing governance structure might be considered as a source of competitive advantage, as it allows firms to achieve better results than its competitors; however, a firm-specific corporate governance may be easily replicated by competitors, in this way nullifying the advantage granted to the firm that implemented it first. Corporate Governance best practices are not scarce: this means that all the market participants can reduce their disadvantage by enforcing the best-performing corporate governance structure. In this situation, Better governance could result in better performance for the economy as a whole.

#### **CONFLICT OF INTEREST STATEMENT**

There is no conflict of interest with any third party.

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**APPENDIX 1**

**LARGE CAP COMPANIES CORPORATE GOVERNANCE SCORE**

<b>Compay Name</b>	<b>Rights &amp; Equitable Treatment</b>	<b>Role Of Stakeholders</b>	<b>Disclosure &amp; Transparency</b>	<b>Responsibility of The Board</b>	<b>Corporate Governance Score</b>
ABB India	20	5	23	23	71
ACC Ltd	25	10	22	22	79
Adani ports	20	8	27	20	75
AmbujaCements	16	10	27	23	77
Asian paints	23	10	27	22	82
Axis bank	25	10	25	18	78
Cipla ltd	25	10	25	27	87
Coal india	23	7	27	22	79
Crompton greaves	22	10	27	25	84
Dabur India	23	8	23	25	81
LF Ltd	28	10	23	23	84
Bajaj Auto	25	10	23	23	81
Dr.Reddy's lab	25	7	23	27	82
Godrej	25	10	25	22	82
Glenmark	25	8	23	23	79
Glaxosmithkline	20	8	27	25	77
Grasim	20	10	23	22	72
GAIL India	23	10	27	27	87
Hero Motocorp	22	8	23	27	80
Hindalco	23	10	25	20	78
HCL	23	7	23	28	81
ICICI	22	10	25	27	84
Indian oil	27	10	25	27	8
Infosys	27	8	28	27	90
ITC	20	10	22	23	75
M&M	23	10	27	25	85
Cairn India	23	8	25	20	76
Larsen&Turbo	27	10	28	27	92
Lupin	23	8	27	18	76
MMTC	25	7	25	20	77
Nestle	23	10	27	25	85
NMCD	18	8	23	20	66
Reliance industries	27	10	27	23	87
Siemens ltd	22	8	22	20	72
ONGC	28	10	25	25	88
Wipro	25	10	25	25	85
Wockhardt	22	8	23	22	75
Tech Mahindra	25	10	27	22	84
Maruti Suzuki	27	10	27	23	87
JK Cement	27	8	25	22	84
Birla corp	23	10	25	23	81
Britannia	23	8	25	25	81
Bajaj electricals	20	8	27	25	80
P&G	25	8	28	23	83
HDFC	27	8	27	23	85

**APPENDIX 2**

**MID-CAP COMPANIES CORPORATE GOVERNANCE SCORE**

Company Name	Rights & Equitable Treatment	Role Of Stakeholders	Disclosure & Transparency	Responsibility Of The Board	Corporate Governance Score
Ashok Leyland	23	10	28	27	88
Biocon	25	10	25	25	85
Crompton gears	25	8	25	23	81
Godrej	20	10	27	20	77
Gillette India	20	8	23	25	76
Indian hotels	22	8	23	25	78
HPCL	22	10	27	25	84
Jaiprakash Associates	22	8	25	23	78
LIC Housing	23	10	28	25	86
MRF Ltd	20	8	23	23	74
Titan	23	10	27	23	83
M&M Financial services	23	10	28	23	83
Mind tree	22	10	23	25	80
Piramal Enterprises	22	8	23	27	80
Reliance Infrastructure	25	8	27	25	85
Power grid	23	8	23	23	77
Sesa Goa Ltd	23	8	27	27	85
Vardhaman Textiles	22	8	22	20	72
Zee Entertainment	25	10	23	23	81
Zydus Wellness Ltd	18	8	23	23	72
Ultratech	20	8	25	25	78
Sun Tv	27	10	23	23	83
Tata chemicals	25	8	25	25	83
Vijaya Bank	20	8	25	22	75
Voltas Ltd	20	8	27	20	75
Whirpool	23	7	25	22	77
Yes bank	27	10	25	25	87
NTPC	23	10	28	27	88
Hindustan Zinc	25	10	27	25	87
Kotak Mahindra Bank	23	10	25	27	85
Blue star Ltd	22	10	22	25	79
Bombay Dyeing	22	8	23	20	73
Marico Ltd	23	8	23	20	74
3M India Ltd	25	10	25	25	85
Bharti Airtel	28	10	25	27	90
BHEL	27	10	25	25	87
TVS Motor	27	10	27	27	91
Havells India Ltd	23	8	25	20	76
Bharat Petroleum	27	10	25	25	87
Hindustan Petroleum	27	10	27	25	87

**APPENDIX 3**

**QUALITATIVE COMPARITIVE ANALYSIS OF LARGE CAP COMPANIES**

**1. Dependent variable: Return on Assets**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.755474

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*rb1	0.400000	0.400000	0.725225
Solution coverage	: 0.400000		
Solution consistency	: 0.725225		

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.755474

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*rb1	0.401863	0.401863	0.723714
Solution coverage	: 0.401863		
Solution consistency	: 0.723714		

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.755474

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
rb1*dt1*~rs1	0.400000	0.400000	0.725225
Solution coverage	: 0.400000		
Solution consistency	: 0.725225		

**2. Dependent variable: Return on Capital Employed**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.816302

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*dt1*rb1	0.412135	0.412135	0.810811
Solution coverage	: 0.412135		
Solution consistency	: 0.810811		

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.816302

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*rb1	0.412708	0.412708	0.806488
Solution coverage	: 0.412708		
Solution consistency	: 0.806488		

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.816302

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rb1*dt1*~rs1	0.412135	0.412135	0.810811
Solution coverage	: 0.412135		
Solution consistency	: 0.810811		

**3. Dependent variable: Return on Equity**

**COMPLEX SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.833333

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*dt1*rb1	0.415205	0.415205	0.799550
Solution coverage : 0.415205			
Solution consistency : 0.799550			

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.833333

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*rb1	0.415790	0.415790	0.795302
Solution coverage : 0.415790			
Solution consistency : 0.795302			

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.755474

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
rb1*~dt1*rs1	0.415205	0.415205	0.799550
Solution coverage : 0.415205			
Solution consistency : 0.799550			

**4. Dependent variable: Net Profit Margin**

**COMPLEX SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.488270

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
re1*~rs1*dt1*~rb1	0.717672	0.400000	0.725225
~re1*~rs1*dt1*rb1	0.721982	0.036638	0.489766
Solution coverage : 0.754310			
Solution consistency : 0.402299			

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.488270

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rs1*~rb1	0.728448	0.032328	0.466851
~re1*~rs1	0.721982	0.025862	0.446666
Solution coverage : 0.754310			
Solution consistency : 0.390189			

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000  
Consistency cut off 0.488270

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
rb1*dt1*~rs1*~re1	0.721982	0.036638	0.489766
~rb1*dt1*~rs1*re1	0.717672	0.032328	0.488270
Solution coverage : 0.754310			
Solution consistency : 0.402299			

**APPENDIX 4**

**QUALITATIVE COMPARITIVE ANALYSIS OF MID CAP COMPANIES**

**1. Dependent variable: Return on Assets**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.755193

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~re1*rs1*dt1*~rb1	0.405958	0.126752	0.793379
~re1*rs1*~dt1*rb1	0.297313	0.018107	0.755193
Solution coverage	: 0.424065		
Solution consistency	: 0.735562		

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.745068

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~dt1	0.431659	0.082944	0.675503
rs1*~rb1	0.466121	0.117406	0.788538
Solution coverage	: 0.549065		
Solution consistency	: 0.682148		

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.745068

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rb1*~dt1*~rs1*re1	0.400000	0.400000	0.725225
rb1*~dt1*rs1*~re1	0.297313	0.018107	0.755193
~rb1*dt1*rs1*~re1	0.405958	0.106308	0.793379
Solution coverage	: 0.475467		
Solution consistency	: 0.702936		

**2. Dependent variable: Return on Capital Employed**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.777397

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~re1*rs1*dt1*~rb1	0.403915	0.116845	0.777397
~re1*rs1*~dt1*rb1	0.335706	0.048636	0.839763
Solution coverage	: 0.452550		
Solution consistency	: 0.773049		

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.746586

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~dt1	0.476868	0.110320	0.734918
rs1*~rb1	0.473903	0.107355	0.789526
Solution coverage	: 0.584223		
Solution consistency	: 0.714804		

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.746586

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rb1*~dt1*~rs1*re1	0.291815	0.048043	0.746586
rb1*~dt1*rs1*~re1	0.335706	0.048636	0.839763
~rb1*dt1*rs1*~re1	0.403915	0.096085	0.777397
Solution coverage : 0.500593			
Solution consistency : 0.728843			

**3. Dependent variable: Return on Equity**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.824047

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~re1*rs1*dt1	0.510248	0.055556	0.815517
~re1*rs1*rb1	0.466019	0.011327	0.808989
Solution coverage : 0.521575			
Solution consistency : 0.802490			

**PARSIMONIOUS SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.824047

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~re1*rs1	0.521575	0.521575	0.802490
Solution coverage : 0.521575			
Solution consistency : 0.802490			

**INTERMEDIATE SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.755474

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
dt1*rs1*~re1	0.510248	0.055556	0.815517
rb1*rs1*~re1	0.466019	0.011327	0.808989
Solution coverage : 0.521575			
Solution consistency : 0.802490			

**4. Dependent variable: Net Profit Margin**

**COMPLEX SOLUTION**

Frequency cut off 1.000000

Consistency cut off 0.808219

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~re1*rs1*dt1*~rb1	0.475487	0.124244	0.808219
~re1*rs1*~dt1*rb1	0.372733	0.022834	0.823442
re1*~rs1*dt1*rb1	0.368704	0.106112	0.816964
Solution coverage : 0.617193			
Solution consistency : 0.707264			

## PARSIMONIOUS SOLUTION

Frequency cut off 1.000000

Consistency cut off 0.773900

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~dt1	0.537945	0.062458	0.732176
rel*~rs1	0.407656	0.075890	0.736651
rs1*~rb1	0.532572	0.100067	0.783597
Solution coverage : 0.728677			
Solution consistency : 0.668104			

## INTERMEDIATE SOLUTION

Frequency cut off 1.000000

Consistency cut off 0.773900

	<b>Raw coverage</b>	<b>Unique Coverage</b>	<b>Consistency coverage</b>
~rb1*dt1*rs1*~rel	0.475487	0.124244	0.808219
~rb1*~dt1*~rs1*rel	0.342512	0.030222	0.773900
rb1*~dt1*rs1*~rel	0.372733	0.022834	0.823442
rb1*dt1*~rs1*rel	0.368704	0.106112	0.816964
Solution coverage : 0.617193			
Solution consistency : 0.707264			