



The Transformation of Governance System: A Decade Long Experience of Corporate Governance Using Meta-analysis

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Abstract *The survival and competitiveness of the business are virtually dependent on the governance system, reputation and laws of the country. Irrespective of the efforts for building a flexible and responsive governance system in India, the rigid rules and improper implementation of regulations had resulted in the drastic failure of many business giants. Also, the incremental increase in the literature on various aspects in this dimension realized an emergent need to synthesize the literature. The purpose of this study is to explore from the extant literature, the progress of corporate governance by performing a meta-analysis on 115 studies by segregating them into seven categories during the time horizon of 2008–2018. The findings indicate that the board, CEO, and family firm characteristics are found to be directly correlated with firm performance. However, financial expertise and super director have a positive influence but are the rarely studied variables, merits the attention of researchers. Whereas board size, CEO turnover, foreign director, political connections are impacting the firm's performance negatively.*

The findings reveal that more perspectives need to be included to derive innovative solutions for developing a flexible system of governance.

Keywords Corporate governance · Firm performance · Interrelationship · Meta-analysis · Statistical tool

Introduction

Strategic flexibility performs a vital part in the transformation of an enterprise to enhance transparency, better governance, performance and enhances the international competitiveness in the highly dynamic business environment (Abbott and Banerji 2003; Sushil 2014a, b; Gupta et al. 2019). To make the Indian market competitive to their global counterparts (Sushil 2014a), policy changes have been proposed in the corporate governance (CG) norms to ensure fairness, transparency and to check the corporate frauds. The flexibility in the dynamic setting of the organization is inevitably necessary (Kak 2004; Shukla et al. 2019). Therefore in the twenty-first century, global market leadership can be created through new types of organization and leaders (Hitt et al. 1998) and agile culture to manage continuity and change (Sushil 2014a, b). The adoption of good governance is also desired for healthy competition with global players entering the country (Davies 2012; Singh 2015) and the domestic firms entering the international market. Haldar et al. (2016) state that companies need to reduce managerial slack (Hart 1995) for enhancing their valuation (Black et al. 2006; Bebchuk et al. 2009) and for gaining the foreign investment (Mckinsey 2000; Khanna and Zyla 2012).

Therefore, OECD (2010) has insisted the firms to follow the CG codes for improving monitoring function and for

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the effective implementation of laws. However, the unique institutional setup in the emerging economies has promoted performance measurement as a prominent research area (Haldar et al. 2016). A higher level of CG helps the institutions in attaining high market value and promotes rising performance in the market (Klapper and Inessa 2004; Morey et al. 2009). Studies have found that CG levels directly influence the performance of the firm (Gompers et al. 2003; Klapper and Inessa 2004; Singla and Singh 2016). To survive in the revolutionary scenario and capture a place in the global market, businesses in India have to evolve a more flexible CG system (Volberda 1999; Sushil 2000). The age-old shareholder value system is not sufficient (Charreaux and Desbrieres 2001), a holistic stakeholder system is a must for value creation of firms. For gaining a competitive advantage, business needs to be innovative and flexible to satisfy their changing requirements (Malaviya and Wadhwa 2005; Bishwas 2015).

The CG norms across the countries are almost similar; however, the critical problem arises due to the different implementation procedures (Arsoy and Crowther 2008). Out of 90% of Indian firms having CG policies in place, only 10% of them got the CG policies evaluated by the outside parties in 2011 (Singh and Baj 2013). Further, the problem of concentrated ownership arising in the family-controlled firms is due to the principal–principal and principal-agent conflict (Chakrabarti et al. 2008; Young et al. 2008; Su et al. 2008; Renders and Gaeremynck 2012; Singla and Singh 2016). Besides this, the value of public sector firms falls because of their rigid institutional setup (Gompers et al. 2003).

The Securities Exchange Board of India (SEBI) has made continuous efforts to evolve an excellent system of CG in India. Companies act 2013 is one of the measures in this direction (Spitzeck and Hansen 2010). It is considered to be the indicator of a better governance mechanism followed by the firms in India (Balasubramanian 2013). But CG norms in India still cannot match the best CG practices. There should be voluntary adoption of CG practices on the part of the firms (OECD 2010). Laws and regulations for CG only serve the purpose of providing general guidelines (CII 2009). Further, Haldar et al. (2016) also insisted that the firms should develop their own flexible systems within the boundaries of prevalent legal norms.

Investors have two choices either to rely on the regulations of the legal system or to concentrate their ownership (Shleifer and Vishny 1986; Bolton and Von Thadden 1998; Maug 1998). Since the concentration of ownership offers protection to investors when weak legal protection persists, the majority shareholder cannot misuse their power (Denis and McConnell 2003). However, it becomes superfluous where a robust legal system protects shareholders.

Does good governance provide useful information in identifying better performing firms? (Siddiqui 2015). CG literature presents contradictory results, and hardly any study has summarized the CG literature into the broad heads and developed interrelationships between them. Secondly, the sample size of past studies, performing meta-analysis, is quite small. Third, it has also been observed from the literature that no study so far has provided the time period comparison among the different categories. Therefore, an attempt has been made to perform a meta-analysis on more than 100 existing studies to summarize them and infer conclusive results. Secondly, the literature has been categorized into seven categories from 115 research articles based on prominent as well as the least studied variables. Third, the interrelationship between categories is presented concerning the time frame of the study.

Our paper makes the following contributions. A meta-analysis in the context of CG has underlined diverse aspects, and its impact on performance has also shown mixed results. The study contributes to the CG literature by providing a broader view of select dimensions by considering the studies across various developed and emerging economies. Also, we have categorized these aspects into three broad categories based on their usage by researchers. In addition to this, cross-analysis is performed between measures of performance and diverse independent and control variables. We have provided new insights by studying the relationship between different independent and control variables used with a performance measure. Further, the association between statistical tools employed by industries considered by sample studies is analyzed. Similarly, the yearly comparison among the frequently and moderately studied variables of the seven categories is performed. So, that researchers can find emerging variables among the categories. The study addresses the call for more conclusive results in the area of CG by analyzing more than 100 papers over a decade. The sample size considered for meta-analysis is reasonable for generalizing the findings of the study.

The remaining portion of the paper has been presented in such a way that part 2 enumerates the literature search, part 3 outlines the methodology opted for conducting the meta-analysis and data interpretation based on key aspects has been detailed in part 4. Part 5 enumerates the discussion, consisting of implications of the study. Lastly, part 6 recounts the conclusion, inclusive of the limitations and directions for future research.

Literature Review

CG is a set of legal and non-legal (voluntary) rules formed to protect the best interest of all the stakeholders of the firm, affecting both the internal and the external environment of the business. Different theories have been proposed in the CG literature, focusing on various functions of managers: agency theory, principal–principal conflict, resource dependency theory and others. The agency theory highlights the separation of ownership and control and considers managers as the agents of the shareholders. While managers give more importance to their own interest over the interest of the owners, leading to the problem of principal–agent conflict. In addition to this, emerging economies face a different type of agency problem known as principal–principal conflict, where majority owners often exploit the interest of minority shareholders (Claessens et al. 2000; Dharwadkar et al. 2000). The possibility of a conflict of interests between a firm’s managers and owners can be traced back since Berle and Means (1932) uncovered the nature of the conflict between managers and owners and attempted to measure its economic consequences.

The researchers have tested the agency theory for its impact on the performance by considering different variables of CG. For example, Dharwadkar et al. (2000) concluded that in the absence of strong external governance, higher ownership concentration could reduce the agency problem. Furthermore, Radice (1971) and Palmer (1973) state that the manager holdings up to 10 percent shares in a firm, work toward maximizing the shareholder wealth. Agency problems can be reduced when block holders have more power to monitor the management (Shleifer and Vishny 1986). Also, the interest of minority shareholders can be prevented in closely held firms (Shleifer and Vishny 1997). The principal–agent model supports that the compensation contracts based on performance measures (including accounting numbers) can align the agent’s incentives with those of the principal (Holmstrom 1979). Further, Lambert and Larcker (1987) show the existence of a positive relationship between compensation and accounting performance. Contrary to this, Marris (1964, 1998) has found that managers may pursue growth beyond the rate to maximize shareholder wealth; since their salaries are linked to the firm size. Jensen and Meckling (1976) and Fama and Jensen (1983) reported that the board independence strengthens the effectiveness of board monitoring and controls agency costs by reducing the probability of cooperation between managers and corporate executives. Dividends can alleviate agency problems between owners (majority shareholders) and managers (or

minority shareholders) by reducing the amount of free cash flow that might otherwise be available.

Our study also supports that the agency problem can be reduced by ownership concentration, CEO compensation, board independence and management shareholding as these factors positively influence the firm’s performance. Contrary to Shleifer and Vishny (1986, 1997) findings, the present study has found the inverse relationship between block holders and firm performance. It might be affected by the different institutional settings of different countries.

Besides the agency theory, the studies have also considered the resource dependency theory for uncovering the relationship between CG and firm performance. The theory assumes that managers provide essential resources for the survival of the firm. Pfeffer and Salancik (1978) and Hillman et al. (2000) propose that directors can provide expert advice, legitimacy or access to key constituents outside the firm through their connections to the external environment. In addition to this, they view directors as providers of essential resources to the firm, such as connections to outsiders (regulations, suppliers, financiers, and others). Hillman and Dalziel (2003) further argue that the director’s knowledge, skills, experience and professional networks underpin the board’s ability to perform its monitoring function. The theory also considers managerial expertise as a valuable resource that increases substantial competitive advantage (Holcomb et al. 2009). Contrary to the findings of agency theory, the resource dependency theory explains that political connection is used to reduce the risks generated by political decisions (Hillman 2005). It tends to create value for firms (Ovtchinnikov and Pantaleoni 2012).

The results of this study also confirm the findings, as it is found that director financial expertise and board independence have a positive relationship with the firm’s performance. However, the factors like educational level of directors, financial background of director and board education level report a neutral impact on the performance (as per Table 4). Contrary to the findings of Ovtchinnikov and Pantaleoni (2012), but in tune with the results of Jia and Zhang (2012), Kuzman et al. (2018) and Shi et al. (2018), our study reports a negative association between political connection and organization performance.

Different ideologies of these theories have compelled the researchers to consider managers as the providers of the human capital. Rather than merely considering them as agents of the firm. Instead of viewing them as creators of agency problems, they are now being considered problem solvers by using their expert knowledge. The primary aim of these theories is to improve organizational performance. One theory believes that reducing agency conflict will result in improved performance. In the same way, another theory presupposes that managers should be chosen based



on their expertise and skills to work for the benefit of the firm. Different variables of CG have been used by researchers to measure firm performance due to the differences in ideologies. Therefore, we were encouraged to uncover different variables in the CG literature considered by researchers so far and to highlight the variables that are still in the nascent stage even after a decade of research on this topic. The study aims to shift the focus toward the variables that fall into the rarely studied category.

The current section summarizes the work of past studies based on key dimensions. The dimensions have been chosen based on recommendations of various CG committees, the relationship with the variables and the association with the firm's performance. The rationale for the selected variables has been outlined in the methodology.

Political Connection

Political connections are assessed by notable prevailing practices. These include making remarkable contributions to political campaigns (Claessens et al. 2008; Cooper et al. 2010), or material expenditure to influence bureaucrats (Chen et al. 2011a, b). While Zhang and Zhang (2005) have found that organizations build a relationship with bureaucrats to socialize with them and build a political network, as these relationships exert a favorable impact on the firm's performance. In addition to this, Opper et al. (2015) have explored that the political connection and political standing of a person are the only criteria for the appointment of a board member. Goldman et al. (2009) found that the presence of a political leader on the board leads to a positive abnormal stock return. Further, Zheng et al. (2015) have emphasized that the link with local political leaders improves firm performance. Du et al. (2014) posit that in China, an outside director with political background helps a firm get entry into high-barrier industries. Contrary to this, Kuzman et al. (2018) assert that frequent alteration of board members due to political interference severely hampers the performance of state-owned enterprises.

Independent Director

Fama and Jensen (1983) affirm that independent managers are better monitors and are considered an expert in decision control. They help in reducing agency costs by the play of monitoring role in appointing, evaluating and expelling the top executives (Adams and Ferreira 2009). They aid in forming corporate strategy by providing their professional suggestions (Demb and Neubauer 1992) and magnify the reverse association of CEO turnover on firm performance by expelling ineligible CEOs (Weisbach 1988). Su et al. (2008) found that outside directors can make lesser the

cases of misuse of funds created by the majority shareholder, and in a case when a firm is performing poorly, then it stands against management proposals. Cai et al. (2015) propose that the effectiveness of independent directors can be increased by providing them more firm-specific information. In addition to this, governance can also be enhanced by deploying a judicious blend of independent and non-independent directors on the board of the firm (ALI 1994; Business Roundtable 2010; FMA 2014; CII 2015). Haldar et al. (2016) opine that outside directors in India significantly impact the international competitiveness of the IT and pharmaceutical industries. The board of S&P 500 companies comprises of 84% independent directors (Spencer Stuart Board Index 2015). On the other hand, Singla and Singh (2018) have reported that 94% of sample public firms in India do not implement the provisions related to board independence, due to the time-consuming process of appointment followed by the ministries and bureaucracy (Hindustan Times 2016). The size of the board and outside directors are the predictors of flexibility in CG (Haldar et al. 2016). Similarly, Cavaco et al. (2017) have noticed an uncertain relationship between the presence of independent directors on board and firm performance. Kramarz and Thesmar (2013) have found that the previous association of director with the CEO, either at degree level or professional qualification level, plays a role in his/her appointment as a director.

Executive Compensation

Ke et al. (2012) determine a significant decline in executive compensation and accounting performance after the enactment of rule-based accounting measures. Further, Sen and Sarkar (1996) have examined that the difference in age, experience, qualification and remuneration of managers leads to increased pay differentials in managers' salaries among their sample firms. Contrary to the above, Ghosh (2007) has noted that CEO compensation has a positive influence on company performance. Elsilal et al. (2012) have also found that equity incentives to CEO positively influence the firm's accounting performance. Adithiyangkul et al. (2011) find that perks paid to the CEO directly influence the firm's return on assets. In addition to this, Chung et al. (2015) highlight that voluntary disclosure of excess CEO compensation by a firm increases firm value. Conversely, Parthasarathy et al. (2006) have reported that the executive's remuneration is materially affected by the firm's size. Adithiyangkul and Leung (2017) noticed that improper design of non-executive director compensation affects the monitoring of large shareholders. In brief, inferences drawn from past studies concerning executive compensation are inconclusive.

Female Board Members

Past studies have found blended outcomes of gender diversity on organizational performance. Erhardt et al. (2003) and Campbell and Vera (2008) have found the positive influence of female directors on firm performance. Contrary to this, Rose (2007) and Carter et al. (2010) have found no effect. Adams and Ferreira (2009) and Haslam et al. (2010) have found an inverse association between female directors and company performance. Joecks et al. (2013) reported that gender-diverse board has a U-shaped connection with the performance of the company. In continuation of this Williams (2003), Bear et al. (2010) and Jia and Zhang (2011, 2013) posit that the existence of female board members raises firm donations toward society leading to an improvement in social performance. Zalata et al. (2018) have reported that the presence of female audit experts leads to less earning management by firms. Correspondingly, Srinidhi et al. (2011) have found that the stock prices in the market reflect the firm-specific facts revealed by female board members. Further, the studies have documented that a globally lower level of corruption is found in countries with female leaders (Dollar et al. 2001; Cheung and Hernández-julián 2006). Schubert et al. (1999) and Eckel (2002) found females to be less self-centered and unwilling to take risks. Chen et al. (2017) note that firms with a substantial proportion of female pay higher dividends.

Apart from this, higher participation of females in a firm leads to lower leverage, lower R&D investment, lesser productive investments and lesser takeover protection (Jin et al. 2014; Chen et al. 2016). Similarly, Levi et al. (2008) analyze that gender-disparity on a firm board ensures higher attendance of board members, participation in committees and demand substantial responsibility for poor performance from the managers. Adams et al. (2015) suggest that country-level institutions affect the social performance of boards with gender diversity. The participation of female board members in UK firms is 23%, and it is 42% in Norway (Spencer Stuart UK Board Index 2015). In contrast to this, Singla and Singh (2018) report that 40% of public sector firms in India do not appoint a female as an independent director on the board. Bianco et al. (2015) have noticed that the small firm with concentrated ownership appoints affiliated family women on the board.

Research and Development (R&D)

For acquiring the competitive space and the transformation of business enterprise, investment in R&D is required by the firms (O'Brien 2003). However, the uncertain outcomes of R&D investment are related to higher complications and business risks (Chen et al. 2013). Managers find difficulty

in determining the amount of funds to be invested in an R&D program. Kuo et al. (2018) posit that firms with professionally qualified directors tend to invest more in R&D compared to family-controlled firms (Schmid et al. 2014).

During good times, the availability of the additional cash allows managers to maintain R&D investment along with periodical payback to shareholders (Peng and Luo 2000). Pindado et al. (2015) have suggested that R&D investment of firms with good CG practices positively influences the firm's market value. Lian et al. (2014) reported that innovations and technological novelty are hampered when real earnings are managed by cutting R&D expenses. On the other hand, internal CG characteristics are associated with R&D investment of the firm (Singh and Gaur 2013). For R&D investment, the firm sacrifices part of its profits to acquire long-term benefits, R&D investments have high risk, because the investment may fail when changes in market cycles are fast or when processes are rigid. It has been noticed that the firm valuation is affected more by non-monetary measures like technology, R&D investment and management quality. Although financial performance measures are positively correlated with the stock market, none of them significantly explains stock market variation (Sharma and Kumar 2012). For improving the overall firm's performance, a holistic system considering the need of the firms should be designed.

Institutional Investors

Roychowdhury (2006) ascribes that institutional investors can curtail real activities manipulation. As stated earlier, the study conducted by Denis and McConnell (2003) says that the institutional investor is the protector of shareholders' interest in nations that provide inadequate safeguards for shareholder rights. Further, Heugens et al. (2009) have found that active investors in the market outperformed the firm's owners. They also highlight that an adequate development of institutional investors in a country is crucial for making ownership concentration as an impressive CG mechanism. Hsu et al. (2016) posits that institutional investors ensure better CG practices and improves technological development on a large scale. Also, Shleifer and Vishny (1986) claim institutional shareholders emphasize value maximization over all other goals along with the development of firm technological capacity and leadership. As a result, business tends to avoid the importance of disclosure quality and information transparency for fulfilling the expectations of the institutional shareholders. Ku (2013) ascribes that firms with more institutional investors on board have greater information transparency. Also, the changes in the firm's CG practices



are directly affected by the ownership of institutional investors (Aggarwal et al. 2011).

Earning Management

Qi et al. (2014) and Zhu et al. (2015) have reported that earning management rises because of external CG measures like media attention and the big 4 auditors. In addition to this, Ge and Kim (2014) have found that earning management rises when there is an effective governance mechanism and decreases when high protection is provided for the change of ownership. Shen et al. (2015) provide evidence that Chinese firms following good CG practices that prohibit earning management have a high valuation in the market as compared to their other counterparts.

Bedard et al. (2004) and Hossain et al. (2011) have noticed that the minimum one financial expert's appointment on the audit board lowers the accrual-based earnings management. Besides this, Xie et al. (2003) have found that discretionary earnings and the proportion of outside directors have an inverse relationship. Gul et al. (2011) ascribe that the appointment of the female board members improves the caliber of financial reports, resulting in an analyst's accurate earning forecast, though Sun et al. (2011) emphasize that earnings management does get affected by the appointment of the female members on the audit board.

Transparency

CG is necessary for enhancing competitiveness (Haldar et al. 2016) and incorporating equity, openness and responsibility in the firm (Witherell 2002), in turn, unleash changes in making India hyper-competitive market (Sushil 2005). Li and Wang (2010) have explored that authentic accounting facts reduce the chances of fraud and selection of non-viable projects; hence, it improves the utilization of capital by the firm by hampering both underinvestment and overinvestment in the projects. Bhattacharya et al. (2003) have investigated a lower degree of accounting information transparency in a country that leads to higher equity costs and lesser stock trading, thereby impacting the proper usage of funds at the national level. Cao and Qian (2011) have found that the internal mechanism of controlling corporate is not sufficient to control fraud. Hoskisson et al. (2014) ascribe that lack of proper governance structures, authenticated checks and balances, fair reporting standards and effective laws encourage corruption. Further, Gupta and Parua (2006) reported that most of the Indian firms do not adhere to the disclosures related with the independence of the audit board and constitution of the nomination and remuneration committee. Nekhili et al. (2017) assert that corporate social responsibility (CSR) generates more value

for gender-diverse boards. Further, Singla and Singh (2018) have raised a concern about the effectiveness of the review process by documenting that 47% of government enterprises in India do not have an adequate number of non-executive managers in the remuneration committee. Gul et al. (2013) reported that firms with female directors are found to have more accurate and transparent accounting information. Haldar et al. (2016) recognize the need for a system that can guide and protect the interest of all stakeholders and provide a structure for attaining the company's objective. Therefore, they may need a flexible and adaptive system in their governance.

Related Party Transactions (RPTs)

Bennouri et al. (2015) investigate that firms hesitate to disclose RPTs involving high monetary value through phony transaction records, resulting in corporate fraud. As confirmed by the findings of Singla and Singh (2018) that 30% of the government undertakings in India do not have transparent RPTs policy. Rozeff and Zamam (1988) have found that corporate insiders and outside investors use public information related to RPTs to earn extra profits, leading to a disagreement with the firm's minority shareholders (Varma 1997; Singh 2015; Varottil 2015).

Lakonishok and Lee (2001) contend that contrary to the outside investor, insiders have timing advantage while they are dealing in the stocks of their firm. RPTs are mostly connected with transactions related to the value of the firm (Kohlbeck and Mayhew 2010; Atanasov et al. 2010), resulting in unsatisfactory firm performance leading to high chances of corporate failure (Ryngaert and Thomas 2012). Additionally, few studies have considered RPTs as an engine of earnings management (Jian and Wong 2010). Chen et al. (2011a, b) state that Chinese firms (that have launched IPOs in the year 1999–2000) are indulged in RPTs through shareholder structures to showcase high performance before IPO; in fact, their performance suffers in long term due to declining stock prices as a result of lower RPTs post-IPO. Whereas, Habib et al. (2015) have found that audit risk is increasing in China because of a direct association between RPTs and audit fees.

Audit Committee Members (ACM)

Harris and Raviv (2008) suggest that business analysts are efficient monitors as they can gather information about the complicated financial transaction and risks associated with such transactions easily as compared to others. Krishnan and Visvanathan (2008) add that financial experts as ACM promote effective accounting practices due to their capabilities and knowledge. Brown et al. (2011) postulate that the director should investigate the honesty of the CEO

explanation and know the result of financial decisions to develop an effective monitoring mechanism. Hung and Cheng (2018) posit that for reducing the audit risk, there should be information transparency between auditors and the board of directors. Sarbanes–Oxley Act (2002) also emphasizes the requirement of finance professionals, and Dhaliwal et al. (2010) further state that they should have required experience in preparing the financial statements and in providing correct estimates. Liu and Lai (2012) assert that high-quality auditors' appointment to increase the firm value of the diversified firms. The chances of reporting distorted financial results are high (Beasley et al. 2000), in the absence of the audit board, few outside directors, and ACM (Dechow et al. 1996). Bennouri et al. (2015) noted that the adoption of IFRS in France had reduced the inverse relation between Big 4 auditors and the disclosure of RPTs.

The literature review concerning CG theories and distinctive aspects has shown mixed results; it has motivated us to conduct the meta-analysis on previous work to form conclusive results.

Research Methodology

Since there is dearth of individual studies that interpret several aspects and summarizes the extant literature relating to CG and firm performance, moreover, misleading results are found about the CG characteristics in the individual set of studies (Hunter and Schmidt 1990). It was found from the literature that researchers have focused their attention on agency theory as compared to other CG theories like stakeholder and resource dependence theory. Therefore, variables that could address the issue of principal-agent conflict and principal–principal conflict have much been used across past studies. Though in recent years, researchers have started to solve this problem from the perspective of resource dependence and stakeholder theory. Therefore, some factors have been explored widely. However, others are still in their nascent stage. Individual sample studies (referred to in the literature) in this aspect would be ineffective in uncovering the diverse dimensions studied in the area of CG. Singh et al. (2020) also supported that studies applying both quantitative and qualitative methods produce a better outcome than individual studies. Hence, we were encouraged to systematically analyze the findings of the individual studies to produce generalized results.

Therefore, meta-analysis is performed to integrate the findings of past studies to understand their effect and significance (Siddiqui 2015). Further, meta-analysis has helped in increasing the span of reviewing the literature (Singh and Dhir 2019) by providing a detailed summary of

available research by systematically combining the quantitative data (Tatsioni and Ioannidis 2008). With the help of meta-analysis, we can expose differences among the studies (White et al. 2009) and provide an overview, which is not possible in the case of other research methods like theoretical, conceptual, review and critique techniques (Singh et al. 2020). In the present study, the interrelation of different variables over different time periods has been made as an innovative and added technique of meta-analysis. So far, no study to the best of our knowledge has presented the interrelationship of the statistical technique with industry and independent and control variables studied with accounting and market measure of performance. We have also presented the interrelationship between country chosen for sample studies and the stock exchanges of the respective countries.

For performing a meta-analysis on the sample studies, firstly, the literature review has been structured based on some prominent aspects emphasized by the Companies Act 2013 and the various committees formed after that in India. However, three more heads related to earning management, political connection and R& D expenditure are also included. The rationale for including these heads is that, during the process of paper selection and analysis, it is found that most of the select journals under study have found the negative effect of the political connection on the firm's performance. Contrary to this, we also found some studies that have shown a direct association between the political connection and the performance of the firm. Therefore, they have been included in the literature review only by keeping in mind the importance of the subject matter and dimension. Apart from these, institutional investors and R&D expenditure have not been insisted by various committees, but authors have found their impact on the firm performance. So they have been included for better incite only in the literature review.

The time frame of 2008–2018 is chosen because the studies related to CG and firm performance rose tremendously in the recent years (2016–2018) as compared to other periods. The numbers of studies conducted during 2008–2014 were almost stable in the range of 20 to 22. However, the period 2014–2016 shows the decline in this pattern. Against this background, a sharp rise of almost twofold was witnessed during the subsequent period, i.e., 2016–2018, as economies around the world are insisting on transparent corporate mechanisms, so the research in this direction has recently gained momentum. Further, the subsection of the research methodology describes the method of data collection and analysis of the study.



Table 1 List of referred journals with their rankings and impact factor for the period of 2008–18

Name of the Journal	Number of research papers	ABDC ranking ⁽¹⁾	Impact factor ⁽²⁾
Journal of Corporate Finance (JCF)	35	A*	2.215
Corporate Governance: an International Review (CGIR)	26	A	2.705
China Journal of Accounting Research (CJAR)	18	B	NA ⁽³⁾
Journal of Business Research (JBR)	16	A	2.509
Asia Pacific Journal of Management (APJM)	11	A	2.474
IIMB Management Review (IIMB)	5	B	NA ⁽³⁾
Journal of Accounting Research (JAR)	4	A*	4.542

Source: Notes: ABDC ranking⁽¹⁾ is as per the ABDC ranking list 2019

Impact factor⁽²⁾ has been recorded from the journal website as on March 2019

NA⁽³⁾ NA stands for the non-availability of impact factor on the journal website. These journals have been considered for data analysis, keeping in view the relevance of the topic and the number of papers available

Data Collection

To uncover the determinants explored by the previous studies, an electronic data search was carried on the reputed journals from A*, A, B and C category as per the Australian Business Deans Council (ABDC) journal list⁽¹⁾ having impact factor more than 1 (as per Table 1).¹

For selecting the papers among the sample journals (as per Table 1), digital databases: JSTOR, Science Direct, Google Scholar, Research Gate and EBSCO were examined. The search began with three keywords, i.e., CG, firm performance and firm value, leading to the identification of around 900 papers. Firstly, the studies related to project performance, mutual fund performance and CSR and firm performance were excluded, which had reduced the sample size to 700 papers. In addition to this, articles related to CG that did not measure the market or accounting performance were eliminated, reducing the sample size to around 476 papers. Further, a systematic literature search was conducted on electronic databases considering the time duration of 2008–2018 for exploring the market as well as accounting measures of performance that left us with 257 studies. After that, based on select studies, we have downloaded the full papers and identified the variables according to the selection criteria. Based on the criteria, the final 115 papers have been considered for the data analysis. Further, 112 articles (other than the journals referred in Table 1) have been used for the literature review and for supporting the analysis of the study. Thus, the present study has referred to 227 research articles in total.

Out of 115 papers selected using the above criteria, the ten most cited papers from a decade (capturing the relevance, importance, and attention of the researchers),

specific to the field of CG and firm performance, are presented in Table 2.

Analysis

To highlight the parameters/variables that had been used in the CG literature for assessing the firm performance. The data have been segregated into seven categories, as follows:

(1) independent variables used, (2) control variables, (3) the market and accounting measures of assessing the performance, (4) statistical techniques employed, (5) industry-wise analysis, (6) country-wise analysis and (7) market index used.

Descriptive statistics is used for summarizing the data. For this purpose, three sub-categories are formed, i.e.,

1. Frequently studied—Based on frequency, variables included in the maximum studies (included in at most 10 papers).
2. Moderately studied—Based on frequency, the variables are studied but are not widely explored (included in less than 10 but more than 3 papers).
3. Rarely studied—The variables need attention for future research (included in at most 3 papers).

Under the first category, besides segregating the independent variables used in the sample studies into three sub-categories, we have studied the impact of these independent variables on firm performance (Table 4). Also, cross-analysis is performed to investigate the independent and control variables used with a different measure of performance (Table 7). Further, the interrelationship between statistical techniques used by the industries in the sample studies has also been outlined for developing better insight in this paper (Table 10). After this, to identify the recently

¹ The link for ABDC ranking list 2019 is <https://abdc.edu.au/research/abdc-journal-list/>.

Table 2 List of Ten most cited papers, their citation score, and citation per year as of March 2019. *Source:* citation score has been extracted from the journal website

Research paper title	Authors and years	Journal name	Citation score
Corporate governance and firm performance	Bhagat and Bolton (2008)	JCF	460
The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance	Carter et al. (2010)	CGIR	238
Large shareholders and firm performance—An empirical examination of founding-family ownership	Andres (2008)	JCF	235
Board Structure and Firm Performance: Evidence from India's Top Companies	Jackling and Johl (2009)	CGIR	144
Do women directors improve firm performance in China?	Liu et al. (2014)	JCF	109
Family succession and firm performance: Evidence from Italian family firms	Cucculelli and Micucci (2008)	JCF	103
Board independence, firm performance and ownership concentration: Evidence from Chile	Lefort and Urzúa (2008)	JBR	93
Meta-analyzing ownership concentration and firm performance in Asia: Toward a more fine-grained understanding	Heugens et al. (2009)	APJM	92
Board meetings, committee structure and firm value	Brick and Chidambaran (2010)	JCF	82
Business Group Affiliation, Firm Governance and Firm Performance: Evidence from China and India	Singh and Gaur (2009)	CGIR	76

emerging variables in the CG literature, the data are presented with the help of graphs.

Data Interpretation

The current section of the paper tabulates the meta-analysis results of 115 studies, based on seven categories into three dimensions, namely frequently studied, moderately studied and rarely studied.

It is found from Tables 3 and 4 that some of the variables in the frequently and moderately studied category related to board of directors and their characteristics (block holders, board committees, board diversity index, board independence, board meeting, management shareholding, outside director, ownership concentration, super director, director compensation, director financial expertise, female director) in addition to the CEO attributes (CEO compensation, CEO ownership, tenure of CEO) and also family business characteristics, i.e., family CEO and family ownership have shown positive impact on the performance. *Inter-alias*, the high quantum of positive association (i.e., more than one-half of the papers) has been revealed in the independent variables related to the outside director, female director, ownership concentration, management shareholding, family ownership, family CEO, board independence and CEO age.

On the contrary, variables belonging to frequently and rarely studied categories such as board size, CEO duality, CEO turnover, foreign director, lead director, except for

political connection in the moderately researched category have all shown the negative effect on firm performance. According to the sample studies, the rest of the endogenous constructs have a neutral impact on the firm performance.

Table 5 shows that firm size and leverage have been widely used in this category by nearly one-half of the sample studies compared to the other frequently studied variables; *in fact*, less than one-fourth of the studies have used industry, sales growth, profitability, R&D as control variables. In continuation of this, a subsequent criterion is defined as segments, debt to total assets, volatility, firm risk, GDP, cash flow, advertising expenditure, loss, liquidity and beta, which has been researched by 35 research papers (in total). However, (almost 3 studies) factors like intangible assets, debt to equity, herfindahl index, asset tangibility, big 10(audit firm), tangible assets to total assets, globalization and total accruals are also tested in this category.

Performance measurement and management, having a major focus on financial performance, are continuously regarded as an important element of managing the firm strategy (Sushil 2014a, b). Table 6 describes that majority (nearly half) of the sample studies have used ROA as a tool for measuring the accounting performance with board size and CEO duality as the majorly tested endogenous variables (highest frequency as per Table 7). Besides this (as per Table 7), CEO characteristics (age, ownership, tenure), board meeting, independent director, management shareholding, outside director and ownership concentration have moderately been considered (the basis for classifying the



Table 3 Endogenous variables used in the sample research studies for the period of 2008–18

Frequently studied	N	Percentage	Moderately studied	N	Percentage	Rarely studied	N	Percentage
Board size	52	45	(1) Outside director (2) busy director (3) director age	9	8	(1) Director interlocks (2) board composition (3) board monitoring activity (4) CEO turnover	3	3
CEO duality	37	32	(1) CEO compensation (2) political connection	8	7	(1) Director tenure (2) affiliated director (3) board education level (4) controlling shareholder	2	2
Independent director	24	21	(1) Multiple directorships (2) foreign ownership (3) block holders (4) corporate governance index	7	6	(1) Board ownership (2) foreign director (3) financial background of board members (4) board diversity index (5) lead director (6) super director (7) gray director	1	1
CEO tenure	17	15	Board tenure	6	5			
CEO ownership	15	13	(1) Board diversity (2) institutional ownership (3) family CEO	5	4			
CEO age	14	12	(1) Inside director (2) director compensation (3) director shareholding (4) the education level of director (5) director financial expertise (6) family ownership	4	3			
Board independence	13	11						
(1)Female director (2) board meeting (3) ownership concentration	12	10						
Board committees	11	9						
Management shareholding	10	9						

*N represents the number of times the sample studies considered the above-mentioned variable (applies to all Tables)

*Percentage is calculated by dividing the frequency by total sample size (115)

variables into sub-categories, i.e., frequently, moderately and rarely is same as outlined in the research methodology). At the same time, board attributes (board diversity, board independence, board tenure, board ownership), CEO features (compensation and turnover, family CEO) and director characteristics (age, compensation, interlocks, shareholding, education level, multiple directorships, female director, inside director and busy director) along with institutional ownership, corporate governance index and affiliated director have rarely been considered for measuring ROA (as per Table 7). *Inter-se*, most of them fall into the frequently and moderately studied categories (Table 3). Apart from this firm size, firm age and leverage have been frequently used as the control variables. In addition to these control variables like industry, profitability, R&D, advertising and capital expenditure, beta, cash flow, debt to equity, debt to total assets, firm risk,

growth opportunities, liquidity, Ln GDP, loss, sales growth, segments and volatility were moderately and rarely implemented (as per the frequencies of Table 7).

In comparison with this, studies assessing performance through ROE (22 studies) have also considered board size and CEO duality. Further, board diversity, board independence, board meeting, CEO ownership, CEO tenure, director age and compensation have rarely been considered (as per frequencies of Table 7). Concerning control variables: firm size and leverage are heavily weighted. While firm age, though, falls into the frequently studied category (Table 5) slips to moderate category. All other variables in the rare category (as per Table 7) are almost similar to ROA.

For assessing the market performance, Tobin's Q is mostly (43% of the sample) being used (as per Table 6) with board size and CEO duality being heavily weighted as the explanatory variables. Moreover, board features (board

Table 4 List the independent variables influencing the firm performance among the sample studies for the period of 2008–18

Variables	Positive impact	Negative impact	Neutral impact	Total
Affiliated director	0	1	1	2
Block holders	5	2	0	7
Board committees	7	1	3	11
Board composition	0	1	2	3
Board diversity	1	1	3	5
Board diversity index	1	0	0	1
Board education level	0	0	2	2
Board independence	8	3	2	11
Board meeting	7	3	2	12
Board monitoring activity	1	1	1	3
Board ownership	0	0	1	1
Board size	13	23	16	52
Board tenure	1	1	5	7
Busy director	1	2	6	9
CEO age	8	4	2	14
CEO compensation	6	1	1	8
CEO duality	6	24	7	37
CEO ownership	10	4	1	15
CEO tenure	7	5	5	17
CEO turnover	0	2	1	3
Controlling shareholder	1	0	1	2
Corporate governance index	6	1	0	7
Director age	2	3	4	9
Director compensation	3	0	1	4
Director financial expertise	3	1	0	4
Director interlocks	0	1	2	3
Director shareholding	1	3	0	4
Director tenure	1	0	1	2
Education level of director	1	1	2	4
Family CEO	4	1	0	5
Family ownership	4	0	0	4
Female director	6	3	3	12
Financial background of board members	0	0	1	1
Foreign director	0	1	0	1
Foreign ownership	2	1	4	7
Independent director	8	8	8	24
Inside director	2	2	0	4
Institutional ownership	2	0	3	5
Lead director	0	1	0	1
Management shareholding	8	1	2	11
Multiple directorships	2	2	3	7
Outside director	6	1	2	9
Ownership concentration	6	3	3	12
Political connection	1	7	0	8
Super director	1	0	0	1

Table 5 Control variables used in the sample 115 research studies for the period of 2008–18

Frequently studied	<i>N</i>	Percentage	Moderately studied	<i>N</i>	Percentage	Rarely studied	<i>N</i>	Percentage
Firm size	81	70	(1) Segments (2) debt to total assets (3)volatility	9	8	(1) Intangible assets (2) debt to equity	3	3
Firm age	65	49	Firm risk	8	7	(1) Herfindahl index (2) asset tangibility	2	2
Leverage	56	33	(1) Ln GDP (2) cash flow (3) advertising expenditure (4) loss	7	6	(1) Big 10 (2) tangible assets to total assets (3) globalization (4) total accruals	1	1
Industry	27	23	Liquidity	6	5			
(1) Sales growth (2) profitability	19	16	Beta	5	4			
(1) R&D expenditure (2) capital expenditure	17	15						
Growth opportunities	12	10						

Table 6 Parameters used to assess the company's performance in the sample research studies for the period of 2008–18

Frequently studied	<i>N</i>	%	Moderately studied	<i>N</i>	%	Rarely studied	<i>N</i>	%
ROA	55	48	MTBVR	9	8	(1) Economic value added (EVA) (2) announcement period abnormal return	1	1
Tobin's Q	50	43	(1) EPS (2) return on sales (ROS)	4	3			
ROE	22	19						
Stock return	11	9						

committees, board independence and board meeting), CEO (age, compensation and tenure) and director attributes (female, independent and outside director, political connection) in continuation to corporate governance index, management shareholding and ownership concentration have moderately been assessed (as per Table 7). In continuation to the rarely examined factors that have been considered for ROA, some other factors that have only been assessed for measuring Tobin's Q are: board education level, board monitoring activity, controlling shareholder, director financial expertise, financial background of board members, foreign director and super director (Table 7). Concerning the control variable in addition to firm size and firm age that have previously been adopted by ROA, three more factors like industry, profitability and sales growth also fall into frequently used categories (Tables 6 and 7). In addition to this, few variables like asset tangibility, Big 10, globalization, herfindahl index, intangible assets and tangible assets to total assets have only been tested for Tobin's Q. Except for these, all other control variables are similar to those considered for ROA.

In contrast to this, studies calculating stock return (10% of the studies) have used board attributes (board

committees, board independence, and board size), CEO (age, duality, ownership, tenure, turnover) and director characteristics (busy director, interlocks, shareholding, tenure, female director and multiple directorships) other than corporate governance index and institutional ownership. Similarly, control variables in this category are similar to ROA except for beta, cash flow, debt to total assets, debt to equity, firm age, Ln GDP and profitability. Other measures like MTBVR, EPS and ROS are moderately being studied (by 4 to 9 papers as per Table 6). Further, very few studies have used independent variables (specified in Table 7) to assess their impact on MTBVR; among them, CEO attributes, board factors (diversity, education level, independence, tenure) and director-related factors (busy director, director age, director interlocks, female director, independent director, outside director) have been assessed along with foreign ownership and ownership concentration. In the control variable category, capital expenditure, firm size, firm age, industry, leverage, loss, liquidity and sales growth are examined.

In the same way, EPS and ROS have also been tested with board size, CEO duality and independent director. Moreover, EPS has been examined with CEO attributes

Table 7 Independent and control variables used with measures of performance for assessing company performance in the sample research studies for the period of 2008–18

Measure of performance	Independent variables	Control variables
ROA	Affiliated director (1), Blockholders (2), Board committees (2), Board diversity (1), Board independence (3), Board meeting (4), Board ownership (1), Boardsize (17), Board tenure (2), Busy director (2), CEO age (6), CEO compensation (3), CEO duality (13), CEO ownership (6), CEO tenure (5), CEO turnover (1), Corporate governance index (1), Director age (2), Director compensation (1), Director interlocks (1), Director shareholding (2), Education level of director (1), Family CEO (2), Family ownership (2), Female director (2), Foreign ownership (1), Independent director (7), Inside director (2), Institutional ownership (1), Lead director (1), Management shareholding (5), Multiple directorships (2), Outside director (4), Ownership concentration (5)	Advertising expenditure (1), Beta (2), Capital expenditure (3), Cash flow (1), Debt to total assets (3), Debt to equity (2), Firm size (20), Firm age (23), Firm risk (1), Growth opportunities (3), Industry (7), Leverage (19), Ln GDP (2), Loss (2), Liquidity (2), Profitability (5), Sales growth (2), Segments (3), R&D expenditure (4), Volatility (3)
ROE	Board diversity (1), Board independence (2), Board meeting (2), Board size (6), Board tenure (1), Busy director (1), CEO duality (5), CEO ownership (2), CEO tenure (1), Director age (2), Director compensation (1), Education level of director (1), Family CEO (1), Female director (2), Foreign ownership (2), Independent director (5), Institutional ownership (1), Multiple directorships (1), Ownership concentration (1), Political connection (2)	Beta (1), Cash flow (3), Debt to equity (1), Firm size (12), Firm age (5), firm risk (1), Growth opportunities (2), Industry (2), Leverage (15), Ln GDP (1), Loss (1), Sales growth (3), Segments (2), R&D expenditure (3), Volatility (2)
Tobin's Q	Block holders (4), Board committees (6), Board diversity (2), Board education level (1), Board independence (4), Board meeting (6), Board monitoring activity (3), Board ownership (1), Board size (20), Board tenure (1), Busy director (2), CEO age (5), CEO compensation (4), CEO duality (12), CEO ownership (3), CEO tenure (4), Controlling shareholder (2), Corporate governance index (4), Director age (3), Director compensation (2), Director financial expertise (3), Director shareholding (2), Director tenure (1), Education level of director (1), Family CEO (2), Family ownership (2), Female director (5), Financial background of board members (1), Foreign director (1), Foreign ownership (2), Independent director (6), Inside director (2), Institutional ownership (1), Management shareholding (4), Multiple directorships (2), Outside director (4), Ownership concentration (4), Political connection (5), Super director (1)	Advertising expenditure (4), Asset tangibility (2), Beta (2), Big 10 (1), Capital expenditure (9), Cash flow (3), Debt to total assets (5), Firm size (28), Firm age (29), firm risk (2), Growth opportunities (5), Globalization (1), Herfindahl index (2), Industry (13), Intangible assets (2), Ln GDP (2), Liquidity (2), Profitability (14), R&D expenditure (7), Sales growth (11), Tangible assets to total assets (1), Volatility (2)
Stock return	Board committees (2), Board independence (2), Board size (5), Busy director (1), CEO age (1), CEO duality (3), CEO ownership (2), CEO tenure (3), CEO turnover (1), Corporate governance index (1), Director interlocks (1), Director shareholding (1), Director tenure (1), Family CEO (2), Female director (1), Independent director (1) Institutional ownership (1), Multiple directorships (2)	Advertising expenditure (1), Capital expenditure (1), Firm size (7), Firm risk (2), Growth opportunities (1), Industry (1), Leverage (7), Loss (2), Liquidity (1), R&D expenditure (2), Sales growth (1), Segments (1), Volatility (1)
MTBVR	Board independence (1), Busy director (1), CEO age (1), CEO duality (1), CEO ownership (1), CEO tenure (1), CEO turnover (1), Director interlocks (1), Female director (1), Independent director (1)	Capital expenditure (3), Firm size (8), Firm age (2), Industry (3), Leverage (9), Loss (2), Liquidity (1), Sales growth (2).
EPS	Board size (1), CEO age (1), CEO duality (2), CEO ownership (1), CEO tenure (1), Independent director (2)	Firm size (3), Firm age (2) Industry (1), Leverage (2), Ln GDP (1)
EVA	Board committees (1), Board independence (1), Board size (1), Busy director (1), Independent director (1)	Capital expenditure (1), Firm size (1), Firm age (1), Growth opportunities (1), Leverage (1), R&D expenditure (1),
ROS	Board independence (1), Board size (2), Busy director (1), CEO duality (1), Female director (1), Independent director (1)	Firm size (3), Firm age (3), Leverage (3), Ln GDP (1), Segments (1)



Table 7 continued

Measure of performance	Independent variables	Control variables
Abnormal return	CEO tenure (1), Corporate governance index (1), Institutional ownership (1)	Advertising expenditure (1), Debt to total assets (1), Firm risk (1), segments (1)

*The figure in the bracket represents the number of times the parameter is used correspondingly in the sample studies

(age, tenure and ownership) and political connection. On the other hand, ROS has been examined with board independence, busy director, director age, education level of director, female director, management shareholding and ownership concentration. Control variables are similar for both this performance measure, such as firm size, firm age, leverage and Ln GDP. Additionally, EPS has used industry, and ROS has examined segments.

On the other hand, variables like EVA and announcement period abnormal return have hardly been refereed (as per Table 6). Kaur and Narang (2010) have reported that out of 500, only 7.4% (i.e., 37) firms in India assess the firm performance using EVA. Tripathi et al. (2018) found the negative impact of the EVA on the value of Chinese firms. When EVA is considered a standard of performance measurement, then insider stakeholders are given flexibility in managing the risk of value creation (Sushil 2017). For external shareholders, it is an absolute and direct measure of value creation. Studies using EVA for measuring performance have tested board attributes (board committees, board independence, and board size), director characteristics (director financial expertise and independent director) along with CEO tenure. Contrary to this, performance measurement using announcement period abnormal return has assessed diverse variables like block holders, CEO tenure, corporate governance index, institutional ownership and management shareholding. But the control variable is more or less similar to those of ROA and Tobin's like advertising expenditure, debt to total assets, firm risk and segments. Similarly, Kaur and Narang (2010) reported that using EVA in Indian firms is affected by factors such as the size of the firm, debt ratio, turnover, and productivity.

Table 8 indicates that out of the numerous statistical techniques, regression and descriptive statistics have been used by almost 90 studies compared to OLS regression used by one-fifth of the studies during the same time frame among the frequently studied segment. Whereas 24 research studies moderately use methods such as fixed-effect regression, GMM (Generalized Method of Moments) estimation, random-effect regression and cross-sectional regression. Bare studies (less than 3%) have used two-stage least square (2SLS), three-stage least square(3SLS), logistic regression, panel regression, probit regression,

simultaneous regression model, GLS (Generalized Least Squares) regression, hierarchical moderated regression, flexible generalized least square regression(FGLS), structural equation modeling, quantile and baseline regression. They may provide the scope for future research.

Authors have employed these tools in a different context. Atmaja (2009) selected random-effect regression to control for sample selection bias and endogeneity and also the dummy variable (ownership Concentration) to address the problem of the spurious relationship between the dependent and independent variables. This may arise due to the exclusion of unmeasured explanatory variables that nevertheless still affect firm behavior. Further, Cucculelli and Micucci (2008) have employed fixed-effect regression to control for the time-invariant firm characteristics both observable and unobservable; it might influence the within-firm variation in performance around the CEO transition but cannot be controlled for in a cross-sectional setting. On the other hand, Jog et al. (2010) applied fixed-effect regression because the hausman test statistic was highly significant, suggesting that the fixed-effect model could provide more consistent results than the random-effect model. But, Greene (2000) states that the random-effect technique produces a more efficient estimation than the fixed-effects model because it produces estimates with less standard deviation. Brick et al. (2006) have also used structural fixed-effects panel method to control for changes in board monitoring activity, the proxies arising from changes to the firm observable and unobservable characteristics. In addition to this, Renders et al. (2010) have applied 3 SLS regression to measure company performance. Fuster and Cladera (2018) employed the GMM and logit panel model to account for any unobserved persistence in the residuals within each firm.

Further, OLS regression has been implemented by Jameson et al. (2014) to control for variables such as institutional ownership, retail ownership, founder ownership, busy director, long-term debt and tangibility that can impact the firm performance in the presence of controlling the shareholder. Similarly, Chen et al. (2011a, b) have employed OLS regression to test the inverted U shape relationship between ownership concentration and firm performance in the weak institutions in an emerging

Table 8 Statistical techniques employed to study the concerned relationship in the sample research studies for the period of 2008–18

Frequently studied	<i>N</i>	Percentage	Moderately studied	<i>N</i>	Percentage	Rarely studied	<i>N</i>	Percentage
Descriptive	92	80	(1) Fixed-effect regression (2) GMM estimation	8	7	(1) two-stage least square regression (2SLS) (2) three-stage least square regression (3SLS)	3	3
Regression	90	78	(1) Random-effect regression (2) cross-sectional regression	4	3	(1) Logistics regression (2) panel regression model (3) probit regression (4) simultaneous regression model	2	2
OLS regression	25	22				(1) GLS regression (2) hierarchical moderated regression (3) feasible generalized least square regression (FGLS) (4) structural equation modeling (5) quantile regression (6) baseline regression	1	1
Multiple regression analysis	11	9						

economy, while controlling the firm-specific residuals. Besides this, multiple regression analysis is selected by Dey et al. (2011) to study the performance implications of firm switching to a dual-class structure. Random-effect GLS regression and pooled-OLS regression has been tested by Andres (2008) because few firms in his sample showed longitudinal variation in the data. Antia et al. (2010) have opted (2SLS model) wherein the first-stage equation contains at least one instrumental variable that is unrelated to the error term in the second-stage model and implemented this model to reduce the potential problem of endogeneity in the multi-factor regression analysis. Besides, to address the endogeneity issue arising due to unobserved heterogeneity, simultaneity, and reverse causality Liu et al. (2015) have implemented dynamic GMM estimation. Apart from this, Frees (2004) proposes that the logit or probit regression model may be inappropriate for panel data. In the pooled data analysis, the dependent variable is a function of a series of predictors. As a result, the between-subject effect and within-subject effect are omitted. This has caused a severe problem of neglected heterogeneity; it violates some assumptions of a traditional regression model. Adithipyangkul and Leung (2017) have examined the direct and interactive effects of non-executive director incentives on firm performance by employing multivariate regression analysis with robust standard error clustered by firm.

Future studies on CG can run hierarchical moderated regression as implemented by Singh and Gaur (2009) to investigate the performance consequences of group affiliation and within-firm governance variables. They hierarchically developed the model by introducing one interaction at a time to minimize the problem of multicollinearity arising due to correlations between the main effect variables and their interaction terms (Wooldridge 1999).

Further, to understand the relationship between a combination of conditions and their outcomes, Quantitative Comparative Analysis (QCA) is employed that integrates the best features of the case and variable-oriented approach. (Ragin 2008). It is also used to analyze complex relationships and capture all the three features of causal complexity, namely conjunctural causation, equifinality and causal asymmetry (Misangyi et al. 2017). Survival analysis employed by Brookman and Thistle (2009) to measure failure times and time to termination to study CEO tenure as it allows for both voluntary and involuntary departures; the authors state that under this model, the right-censored observations can be easily and correctly accommodated and also incorporate time at risk. To consider the growth patterns in the data and address the possible intra-level correlation problems that occur in multi-level data Chung and Chan (2012) have used multi-level mixed-effects maximum likelihood model (ML model) that allow them to control for heteroscedasticity, intra-correlation problems that might have occurred with the longitudinal, multi-level data. The structural equation modeling applied by Hu et al. (2010) to analyze the direct, indirect effects and interaction among the variables of internal governance and firm performance could be used in future research.

Table 9 shows that among the various sectors explored by the researchers. IT, manufacturing, utilities, construction, real estate, transportation, wholesale and retail trade and mining sector constitute a significant part (95) of sample studies. Followed by industries such as communication, agriculture, healthcare, electronics, media and publishing, telecommunication, chemicals and allied activities, consumer durables and non-durable, pharmaceuticals, and energy. Subsequently, oil, gas and coal extraction, business equipment, automobile and



components, biomedical, diversified, telephone and transmission, capital goods, scientific instruments and professional services are rarely investigated. These sectors can be considered for the sample size of future studies.

Table 10 presents the relationship with statistical tools opted by the industries based on the sample studies. It has been observed that research studies considering sample size consisting of industries (reported in Table 9) have widely used regression, OLS regression and multiple regression techniques. Moreover, studies analyzing performance with sectors such as IT, manufacturing, media and publishing, real estate, transportation, utilities, and wholesale and retail trade have commonly used cross-sectional, two-stage least square regression, multivariate and panel regression. Researchers for testing firms belonging to the agriculture, construction, and mining industry have opted for multivariate and panel regression.

Simultaneously, sample studies analyzing automobile and components, capital goods, consumer durables and non-durable, energy, pharmaceuticals and telecommunication have mainly employed cross-sectional and two-stage least square regression. Further, studies considering the healthcare industry have tested results using panel regression along with cross-sectional and two-stage least square regression at large. In addition to this, studies related to construction and diversified industries have used multivariate regression. Moreover, panel regression is used for firms belonging to oil and coal extraction and the healthcare industry (as per Table 10).

Further, studies testing the consumer non-durable industry have considered fixed-effect, random-effect, GMM and logistics regression. Similarly, the fixed and random-effect regression technique has been employed for the construction industry. Conversely, GMM and logistics

regression have been used for testing the communication industry. Besides this, researchers have preferred random-effect for consumer durables, logistics for healthcare and wholesale and retail trade, fixed-effect for manufacturing, GMM for pharmaceuticals and scientific instruments, and probit regression for firms in the utility business (as per Table 10).

Table 11 shows that nearly three-fifth of the papers have studied China and the USA compared to India and Italy, i.e., only 20 percent. In addition to this, a sample has also been taken from countries like Germany, UK, Australia, France, Korea, Sweden, Taiwan, Spain, Japan, Finland and Canada, constituting 20% (approx.). Researchers are still exploring nations like Austria, Greece, Ireland, Indonesia, Chile, Malaysia, New Zealand, Sri Lanka, Switzerland, Venezuela, Holland, Great Britain, Luxembourg, Peru and Yugoslavia. Still, they are very less in number, which can be categorized in the rare countries group.

Table 11 indicates that among 115 studies that have investigated the data of the firms listed on different stock exchanges across countries. Shenzhen and Shanghai stock exchange have much been used to study Chinese firms. Out of the 30 firms that have considered US firms (Table 12), data were collected from the S&P 1500 and the S&P 500 indices and the New York stock exchange and Dow Jones index. However, other countries mentioned in (Table 11) have collected data from BSE, NSE, Australian, Taiwan and Italian stock exchanges for selecting the listed firms. On the other hand, fewer studies have opted for Taipei, Frankfurt and Toronto stock exchanges and Financial and London Times index. It is found that the primary emphasis of select journals is probably on the USA and China indices.

Table 9 Industry-wise classification for selecting the sample research studies for the period of 2008–18

Frequently studied	<i>N</i>	Percentage	Moderately studied	<i>N</i>	Percentage	Rarely studied	<i>N</i>	Percentage
IT	24	21	(1) Communication (2) agriculture (3) healthcare	9	8	(1) Oil, gas and coal extraction (2) business equipment	3	3
Manufacturing	17	15	(1) Electronics (2) media and publishing	7	6	(1) automobiles and components (2) biomedical (3) diversified (4) telephone and transmission	2	2
Utilities	16	14	(1) Telecommunication (2) chemicals and allied products	5	4	(1) capital goods (2) scientific instruments (3) professional services	1	1
(1) Construction (2) real estate	14	12	(1) Consumer durables (2) consumer nondurables (3) pharmaceuticals (4) energy	4	3			
(1) Wholesale and retail trade (2) transportation	13	11						
Mining	11	9						

Table 10 Studies the relationship between industry and statistical tool studied in the sample research studies from 2008 to 2018

Industry	Statistical tool
Agriculture	Regression, Multiple, Multivariate, OLS and Panel regression
Automobile and components	Cross-sectional and 2 SLS regression
Biomedical	OLS Regression
Business equipments	Regression, OLS and Multiple regression
Capital goods	Cross-sectional and 2 SLS regression
Chemical and allied products	Regression, OLS, Multiple, 3SLS and Logistics regression
Communication	Regression, OLS, Multivariate and Logistics regression, GMM
Construction	Regression, OLS, Multivariate, Multiple, Fixed-effect, 3SLS, Panel and Random-effect regression
Consumer durables	Regression, OLS, Multiple, Fixed-effect, 2SLS and Cross-sectional regression
Consumer nondurables	Regression, OLS, Multiple, Random-effect, 2SLS and Cross-sectional regression
Diversified	Multivariate regression
Electronics	Regression, OLS, Fixed-effect, 3SLS, Logistics, GMM and Random-effect regression
Energy	Regression, OLS, 2SLS and Cross-sectional regression
Healthcare	Regression, OLS, 2SLS and Cross-sectional, 3SLS, Multiple, Logistics and Panel regression
IT	Regression, Multiple, 3SLS, OLS, 2SLS and Cross-sectional, Multivariate, Panel and Probit regression and GMM
Manufacturing	Regression, Multiple, Fixed-effect, 3SLS, OLS, 2SLS and Cross-sectional, Multivariate and Panel regression
Media and publishing	Multiple, 3SLS, OLS, Logistics, 2SLS and Cross-sectional, Multivariate, and Panel regression
Mining	Regression, Multiple, Multivariate, OLS, and Panel regression
Oil, gas and coal extraction	Regression, Multiple and Panel regression
Pharmaceuticals	Regression, Multiple, 2SLS and Cross-sectional, OLS and GMM
Real estate	Regression, Multiple, 2SLS and Cross-sectional, OLS, Multivariate and Panel regression
Scientific instruments	OLS regression and GMM
Telecommunication	Regression, 3SLS, 2SLS and Cross-sectional and OLS regression
Telephone and Transmission	Regression and Multiple Regression
Transportation	Regression, Fixed-effect, Multiple, 2SLS and Cross-sectional, OLS, Multivariate and Panel regression
Utilities	Regression, Multiple, 3SLS, 2SLS and Cross-sectional, OLS, Multivariate, Panel and Probit regression
Wholesale and retail trade	Regression, Multiple, 2SLS and Cross-sectional, OLS, Logistics and Panel regression

Table 11 Country-wise bifurcation of the sample studies for the period of 2008–18

Frequently studied	<i>N</i>	Percentage	Moderately studied	<i>N</i>	Percentage	Rarely studied	<i>N</i>	Percentage
China	37	32	(1) Germany (2)UK (3) Australia (4) France (5) Korea	7	6	(1) Austria (2) Greece (3) Ireland (4) Indonesia (5) Chile (6) Malaysia	3	3
USA	30	26	(1) Sweden (2)Taiwan (3)Spain (4) Japan	6	5	(1) New Zealand (2) Sri Lanka (3) Switzerland	2	2
Italy	12	10	(1) Finland (2) Canada	5	4	(1) Venezuela (2) Holland (3) Great Britain (4) Luxembourg (5) Peru (6) Yugoslavia	1	1
India	11	9	(1) Belgium (2) Denmark (3) Netherlands (4) Turkey (5) Hong Kong (6) Singapore	4	3			



Yearly Analysis

This part of the study presents the yearly comparison of the categories mentioned above by using clustered stacked graphs.

Table 13 and Fig. 1 depict that there is a sharp rise in studies that have chosen board size, CEO duality and the independence of the board as the experimental variables over the given time period. On the other hand, the pattern is more or less the same for CEO duality, independent director, CEO tenure, CEO ownership, CEO age and others in percentage form and numbers. Similarly, among the control variables we find, leverage, firm age, sales growth have been used recently by almost all studies. Moreover, firm size is consistently being used over the decade by the vast number of research studies. For the rest of the constructs like firm years, industry, profitability, R&D expenditure, and capital expenditure, the variation is negligible.

Table 14 and Fig. 2 depict that the ROA, ROE and Tobin's Q have greatly been used as the performance measures, whereas MTBVR, stock return, EPS and ROS are opted moderately for measuring the performance. In the accounting measure, ROA and ROE are consistently being explored. Tripathi et al. (2018) found that Chinese stakeholders rely on EPS as a performance indicator, unlike ROCE, by Indian stakeholders. Tobin's Q as the tool of market performance was prominently considered during 2008–2012 and in 2016–18. On the other hand, EPS and ROS are not being used from 2014 until now. Dimitrios et al. (2009), through his study, suggested that market returns are explained by EPS more precisely, but for increasing the explanatory power of stock market returns, EVA and EPS should be compared simultaneously. It has also been noticed that for calculating Tobin's Q, different formulas have been applied. Out of these, the book value of total assets minus book value of equity plus the market value of equity divided by total assets is considered by most researchers. Likewise, the market value of equity plus the book value of total debt divided by total assets has also been taken into consideration.

It has been noted from Table 15 and Fig. 3 that descriptive statistics, simple regression and OLS regression have been adopted for a decade. On the other hand, the panel regression model came into consideration since 2012. The pattern for employing GMM estimation is almost the same during the period. In 2016–2018, no study used multiple regression analysis. On the other hand, numerous studies have used fixed-effect regression in comparison with previous years. It has also been found that a majority of the sample size has referred industries like IT, manufacturing, utilities, wholesale and retail trade, construction and real estate. Whereas industries like transportation, mining, agriculture and healthcare have recently emerged.

Table 16 and Fig. 4 highlight that sample studies have prominently considered China for empirical studies, followed by the US, Italy and India. Countries like Australia, France, Germany and the UK have seen a rise in this research area during the tenure of 2016–2018. Earlier to this period, hardly the studies have opted for them.

Studies about China have collected data mostly from Shanghai & Shenzhen stock exchange, and the S&P index is used for the US in comparison with Dow Jones and New York stock exchange. The firms representing the sample size were chosen from the Bombay and National stock exchange for India and Italian stock exchange for Italy, respectively.

Discussion

CG as a research area is widely being known for decades, and the current study is also an attempt to converge the findings of existing literature to highlight the progress of CG so far. For this purpose, 227 research articles are considered in total; out of that, 115 articles are reviewed for analysis. These studies have shown the impact of diverse governance variables on firm performance. For performing the analysis on 115 articles, seven broad categories with further classification into frequently, moderately and rarely studied variables are devised. Findings of the study support that the agency problem can be reduced by ownership concentration (Dharwadkar et al. 2000), CEO

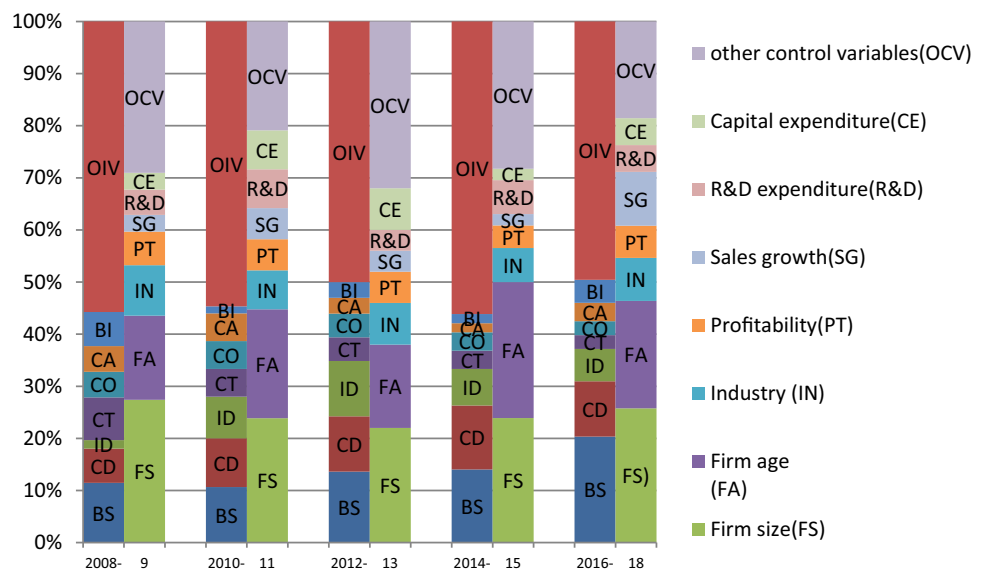
Table 12 Stock exchanges considered by the sample of 115 research papers for the period of 2008–18

Frequently studied	<i>N</i>	Percentage	Moderately studied	<i>N</i>	Percentage	Rarely studied	<i>N</i>	Percentage
(1) Shenzhen (2) Shanghai	18	16	S&P 500	7	6	(1) Italian (2) BSE	3	3
			S&P 1500	4	3	(1) Taiwan (2) NSE (3) New York (4) Australian (1) Taipei (2) Frankfurt (3) Dow Jones (4) Toronto (5) Financial Times and London	2	2
							1	1

Table 13 Interrelationship between the sample periods and key frequently and moderately used variables (independent and control) in the sample studies

Variables	2008–09	2010–11	2012–13	2014–15	2016–18
Independent variable					
Board size (BS)	7	8	9	8	23
CEO duality (CD)	4	7	7	7	12
Independent director (ID)	1	6	7	4	7
CEO tenure (CT)	5	4	3	2	3
CEO ownership (CO)	3	4	3	2	3
CEO age (CA)	3	4	2	1	4
Board independence (BI)	4	1	2	1	5
Other independent variables (OIV)	34	41	33	32	56
Control variable					
Firm size (FS)	17	16	11	11	25
Firm age (FA)	10	14	8	12	20
Industry (IN)	6	5	4	3	8
Profitability (PT)	4	4	3	2	6
Sales growth (SG)	2	4	2	1	10
R&D expenditure (R&D)	3	5	2	3	5
Capital expenditure (CE)	2	5	4	1	5
Other control variables (OCV)	18	14	16	13	18

Fig. 1 Interrelationship (in percentage) between the independent and control variables (based on key frequently and moderately used variables) over a different period of time



compensation (Lambert and Larcker 1987), board independence (Jensen and Meckling 1976 and Fama and Jensen 1983) and management shareholding (Radice 1971 and Palmer 1973) as these factors are positively influencing the firm performance. Contrary to Shleifer and Vishny (1986, 1997) findings, the present study has found the inverse relationship between block holders and firm performance. It might be affected by the different institutional settings of different countries. It is in tune with the findings

of Jia and Zhang (2012), Kuzman et al. (2018) and Shi et al. (2018). However, contrary to the findings of Ovtchinnikov and Pantaleoni (2012), the present study reports a negative association between political connection and organization performance.

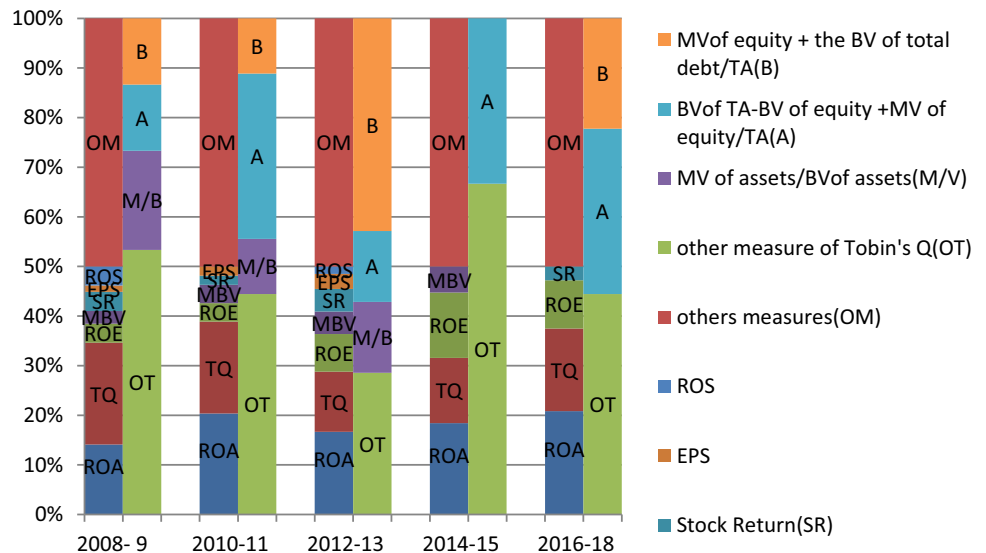
Cross-analysis between independent and control variables with accounting and market measures of performance has highlighted that EVA and announcement period abnormal return has hardly been referred to as the measure



Table 14 Interrelationship between the period and key frequently and moderately used parameter of assessing the performance and Tobin’s Q formulas used by the sample studies

Measure of performance/Measure of Tobin’s Q	2008–09	2010–11	2012–13	2014–15	2016–18
Measure of performance					
ROA	11	11	11	7	15
Tobin’s Q (TQ)	16	10	8	5	12
ROE	3	2	5	5	7
Market to book value (M/V)	2	2	3	2	0
Stock return (SR)	3	1	3	0	2
EPS	1	1	2	0	0
ROS	3	0	1	0	0
Other measures of performance (OM)	39	27	33	19	36
The measure of Tobin’s Q					
BV of TA – BV of Equity + MV of equity/TA (A)	2	3	1	1	3
MV of assets/BV of assets	3	1	1	0	0
MV of equity + the BV of total debt/TA (B)	2	1	3	0	2
Other measures of Tobin’s Q (OT)	7	5	5	1	5

Fig. 2 Interrelationship (in percentage) between the parameters of assessing the firm performance and the Tobin’s Q formula (based on key frequently and moderately used measure) among the different periods



of performance (as per Table 6). Kaur and Narang (2010) have also reported that out of 500, only 7.4% (i.e., 37) firms in India assess the firm performance using EVA. Further, it has been observed that research studies consisting of industries (reported in Table 9) have widely used regression, OLS regression and multiple regression techniques. In addition to these popularly known statistical techniques researchers have started exploring hierarchical moderated regression (Singh and Gaur 2009), Quantitative Comparative Analysis (QCA) (Ragin 2008), Survival analysis (Brookman and Thistle 2009), multi-level mixed-effects maximum likelihood model (Chung and Chan 2012) and structural equation modeling (Hu et al. 2010) in the CG field.

Yearly comparison among the seven categories (presented in the methodology section) reveals that the studies have started experimenting with new factors in place of rigorously tested ones. In addition to this, researchers began exploring the panel regression model since 2012 and have begun considering transportation, mining, agriculture, and healthcare industry for sample studies. The study findings will be advantageous for researchers, policymakers, managers and practitioners described in the following paragraph.

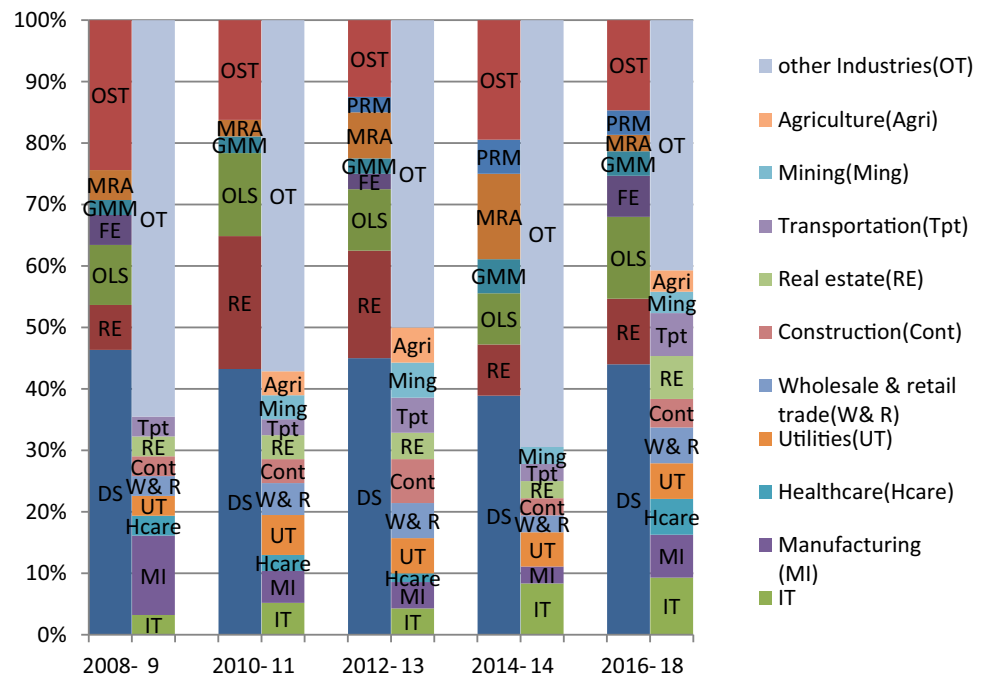
Implications of the study—Theoretical/Academic implications—Our results will help in shifting the attention of researchers in accommodating lesser-known factors along with others to study the relationship between CG and



Table 15 Interrelationship between the sample period and key frequently and moderately used statistical technique as well as industries studied in the sample studies

Statistical tool/Industry	2008–09	2010–11	2012–13	2014–15	2016–18
Statistical tool					
Descriptive statistics (DS)	19	16	18	14	33
Regression (RE)	3	8	7	3	8
OLS regression (OLS)	4	5	4	3	10
Fixed-effect regression (FE)	2	0	1	0	5
GMM estimation (GMM)	1	1	1	2	3
Multiple regression analysis (MRA)	2	1	3	5	2
Panel regression model (PRM)	0	0	1	2	3
Other statistical tool (OST)	10	6	5	7	11
Industry					
IT	1	4	3	3	8
Manufacturing (MI)	4	4	3	1	6
Healthcare (Hcare)	1	2	1	0	5
Utilities (UT)	1	5	4	2	5
Wholesale and retail trade (W and R)	1	4	4	1	5
Construction (Cont)	1	3	5	1	4
Real estate (RE)	1	3	3	1	6
Transportation (Tpt)	1	2	4	1	6
Mining (Ming)	0	3	4	1	3
Agriculture (Agri)	0	3	4	0	3
Other industry (OT)	11	33	35	11	35

Fig. 3 Interrelationship (in percentage) between statistical tools and the industry based on (key frequently and moderately used variables) over different periods



firm performance. It has been inferred that the variables like board monitoring activity, foreign director, director interlocks etc. are moderately or rarely delved into, and

invites the researchers’ attention. The upcoming studies can focus on lesser or rarely known aspects to explore better association in the practiced CG norms. Moreover,



Table 16 Interrelationship between the period and key frequently and moderately used countries and stock exchanges in the studies

Country/Stock exchange	2008–09	2010–11	2012–13	2014–15	2016–18
Country					
China	4	5	11	5	12
US	4	7	2	1	11
Italy	2	2	0	2	6
India	3	1	2	1	4
Australia	1	1	0	0	5
France	1	2	0	0	4
Korea	1	1	1	2	2
UK	1	2	0	0	4
Other countries (OC)	18	13	10	4	43
Stock exchange					
Shanghai stock exchange (SSE)	0	4	8	3	5
Shenzhen stock exchange (SE)	0	4	8	3	4
S&P 500 index (S&P 500)	0	3	1	0	4
S&P 1500 index (S&P)	1	1	0	0	2
Bombay stock exchange (BSE)	1	0	0	1	1
Italian stock exchange (ISE)	0	0	0	1	2
National stock exchange (NSE)	0	0	0	0	2
Other indices (OE)	2	3	1	2	2

variables that have been showing a neutral or mixed relationship can be studied deeply to understand their impact more rigorously. The study will provide insights into the decade long trends of CG dimensions preferred across studies. On that basis, academicians can build a new framework for their research. The comprehensive outlook of the CG literature presented in the paper will help explain the phenomena better. Our framework for studying the interrelationship will provide direction for developing new relationships among factors in this area. Based on the academic rigor, implicit association, and impact status, policymakers can formulate the policies accordingly.

Implications for practitioners, managers and policy-makers—The present study would be useful to encourage the reforms toward some of the factors, namely institutional investors, earning management and political connection of board members. These factors may influence the performance of the firm; therefore, merit attention and should be given due consideration while framing corporate governance policies. The findings of this paper suggest that, instead of only depending on accounting and market measures of performance, the managers can consider other performance measures like EVAs. The literature suggests that more emphasis should be given for the proper implementation of CG practices in public enterprises to improve their performance. There is a vast difference in the adoption of CG practices in India's public and private sector

enterprises. It will also virtually check the managers of public firms' individual gains having weaker governance systems to safeguard the people's money.

Conclusion

This study summarizes the decade long journey of CG research papers published in the leading journals to uncover the potential dimensions as a guiding source that influences firm performance. Mixed results have been found in the majority of the cases among the nine categories; *inter-se*, are based on frequently, moderately and rarely studied variables. The findings reveal that most of the researchers frequently studied endogenous variables, namely the board size, outside director, CEO duality and independent director. Whereas board ownership, foreign director, lead directors, super director have been studied rarely. Similarly, ten control variables have been used in the sample studies; *inter-se*, firm size, leverage and firm years are under the category of frequently studied, whereas volatility, asset tangibility, firm risk, advertising intensity fall under the categories of moderately and rarely studied variables. For measuring the performance of the firm, ROS and EVA have been considered by lesser research studies in comparison with the ROA and Tobin's Q. Further, board size and CEO duality have been widely considered as the

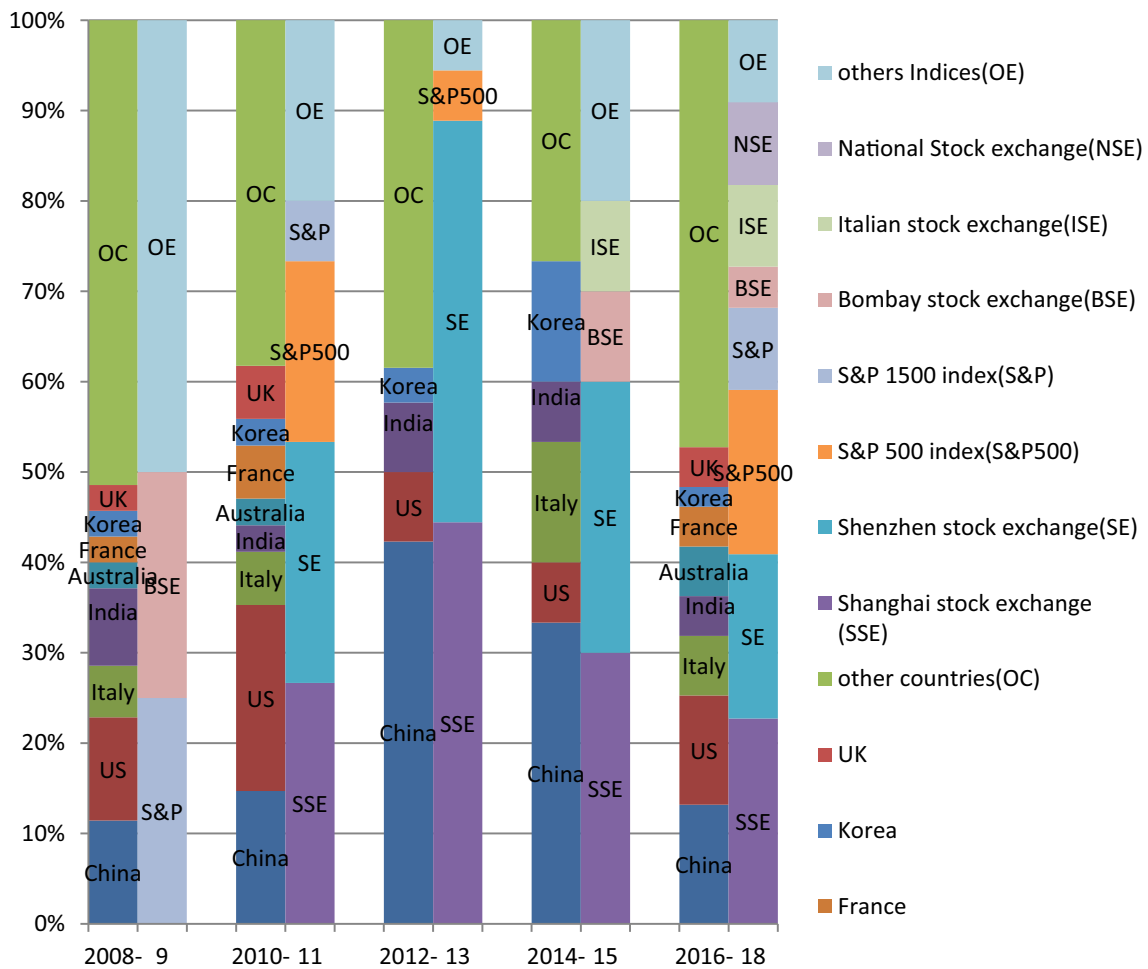


Fig. 4 Interrelationship (in percentage) between country and the stock exchanges (based on key frequently and moderately used variables) over a different period of time

independent variables along with ROA and Tobin’s Q. In the same way, most of the studies have employed firm size, firm age and leverage as control variables with ROA. However, industry, profitability, and sales growth are used as additional control variables with Tobin’s Q.

It is worth mentioning that nearly 80 percent of papers (more than 90 papers out of 115 studies) have studied the relationship using descriptive statistics and regression techniques compared to other statistical tools. Moreover, the dearth of innovative analytical tools in the sample literature of CG has also been noticed. Further, it is noted - that industries, such as IT, pharmaceuticals and capital goods have been greatly emphasized. Other industries are rarely researched that need to be explored. It has also been witnessed that regression; almost all industries have greatly implemented OLS regression and multiple regression. In the same way, companies listed on the stock exchange of China (Shanghai and Shenzhen) and the S&P index of the USA are studied widely in comparison with those listed on Indian stock exchange.

While analyzing the directional association of the endogenous variables on the company performance, it has been determined that some constructs about board traits, CEO and family firm attributes are positively influencing the organizational performance. Klapper and Inessa (2004), Rani et al. (2014), Singla and Singh (2016) have also documented that the CG and the performance of the firm are positively related. Contrary to this, the board size, CEO duality, political connections are having an inverse relationship with the performance. The study conducted by Malhotra and Aggarwal (2011) has also inferred for the involvement of various government departments and the political interference when there is a delay in the appointment of independent directors in public sector enterprises in India.

The periods’ comparison (of some frequently and moderately identified variables) gauges at the variations that occurred during the different periods across the concerned time period of the study. It has been observed that few variables like board size and CEO duality have seen a



tremendous rise in their usage in the current period, along with the firm size and the company age as part of the control variables. For measuring the performance, descriptive statistics and OLS regression are used as popular statistical tools. The study of the trend among respective categories has given a more in-depth insight into the pattern of usage among different dimensions, followed by the research investigating this area.

There is a need to develop a holistic system of performance assessment by reengineering existing management practices (Sushil 2015) that should consider non-fiscal measures such as technical and operational (Kundi and Sharma 2015), along with the financial measures of performance for improving the competitive ability and strategic performance (Sushil 2014a) by continuously managing the change. Ho (2005) has evidenced that a holistic measurement of CG directly impacts the firm's international competitive ability. The policymakers should also look into the implementation of CG practices in Indian public sector enterprises as there is a massive gap in the adoption of CG norms across public and private sector firms in India (Malhotra and Aggarwal 2011 and Singla and Singh 2018). Since the managers of firms with weaker governance frameworks are engaged in gaining private benefits and are least careful with other people's money (Letza et al. 2004), these firms face more adversities (Core et al. 1999).

Limitations and directions for further investigation—The purview of the current study is confined to only seven journals. To gauge at the broader view of the phenomena, more journals can be considered for uncovering the diverse dimensions. Further, only electronic databases have been used to search with the intent to use corporate governance, firm performance and firm value as key search terms. Additional empirical evidence would be useful in case other databases are also explored. In addition to this, comparative studies can be performed between the countries to highlight the difference in techniques, factors used, and many other dimensions. The classification of the present study is confined to seven dimensions only. Further investigation can be undertaken by making more categories.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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Key Questions

1. The implementation of corporate governance laws should be checked in private and public enterprises?
2. The differences in corporate governance affecting firm performance should be discovered?
3. What are the implications for policy makers, practitioner and managers?





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