

Linkages Among Corporate Governance, Intellectual Capital And Firm Performance: Literature Review

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Abstract

It should be tested if there is a relationship existing between corporate governance and financial performances of companies in various industries. So is the case of intellectual capital and performance of firms. In this backdrop, reviewing the existing literature is expected broaden the ideas and analyze the debating patterns. The paper reviews the linkages among corporate governance, intellectual capital and firm performance. We consider firms and industries across the sectors and geographies and different variables in order to determine the amount of consensus and fix the research gap. There exist a strong linkage between these three concepts obtained from the available literature sources.

Keywords: Corporate governance (CG), intellectual capital (IC), Firm Performance (FP).

1. Introduction

The paper discusses the literature review of linkages between corporate governance, intellectual capital, and performance of firms. Good corporate governance practices lead to *intellectual capital efficiency* of a firm (Mouritsen, 1998). Barry Brinker (2000) defined by precise description of the analysis of the concept of knowledge management and work to benefit from the development of the survival and continuity which formed the high value of the company, which separated the human intelligence, skills and creativity. The sources of the article are from Scopus indexed relevant journals from 1997 to 2019. This paper is constructed based on the following theme:

1. Concept of corporate governance.
2. Measurement of intellectual Capital efficiency.
3. Measurement of firm performance.
4. Corporate Governance relation on Intellectual capital.
5. Intellectual capital relation to firm performance.
6. Linkages among corporate governance, intellectual capital, and performance of firms.

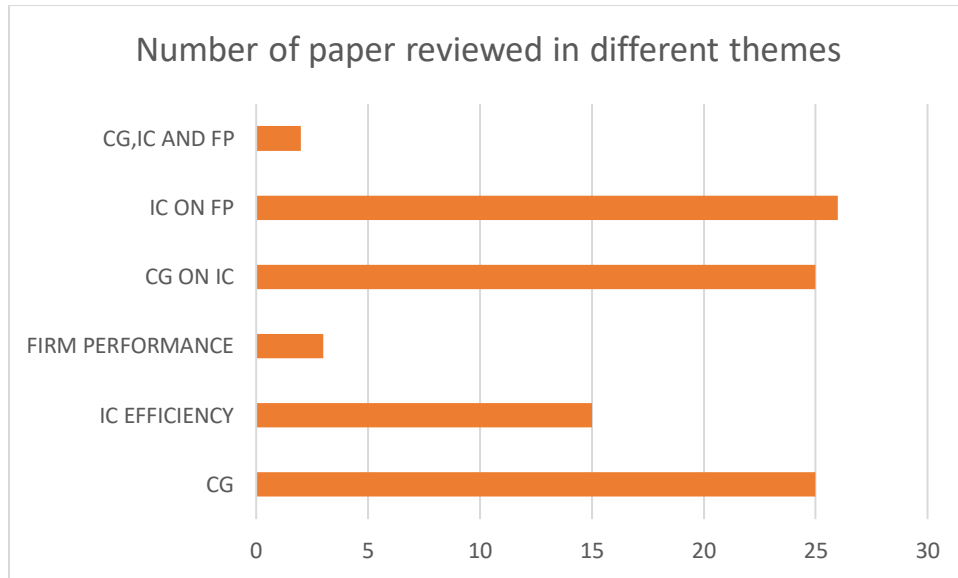


Figure 1 shows the number of papers reviewed against each theme.

2. Corporate governance

Corporate Governance has gained tremendous value due to the various scandals that it happens all over the world. It has come as a blessing in disguise to protect the offspring of Stockholders, employees, suppliers, and government wholly. These parts considered to be the most affected when fraudulent activities occur organization. It has gained importance as a way of ensuring the clarity of functions of executive management and accountability.

One of the most traditional theories of corporate governance is *Principal-agent theory* which demonstrates that board autonomy is crucial in protecting the objectives of owners and managers. An independent board can control and lead the organization efficiently (Fama and Jensen 1983). Board independence is evaluated by the proportion of independent or non-executive directors on the board. A higher ratio of autonomous directors can show a way to decrease the performance financially because of big agency costs, bigger management turnover, and bigger cost to the firm (Heffes 2007). A high proportion of outside directors is therefore viewed as the key to board independence. Some studies claim that board composition is positively related to firm performance (Baysinger and Butler, 1985; Rosenstein and Wyatt, 1990; Pearce and Zahra, 1992; Daily and Dalton, 1994; and Arosa et al., 2010), and therefore, lower-performing firms are more likely to add outside or independent directors to their boards (Hermalin and Weisbach, 1988; Zahra and Pearce, 1989; and Bhagat and Black, 2002).

One of the major problems in corporate governance is an agency cost problem. Macey, Jonathan R, and O'hara, Maureen (2003) recommend that the possible solution to the agency cost problem is to give shareholders direct control over management. Michael and Sharma (2007) Studied about board in family-controlled business. They found the influence of duality on company performance those changes depending on situations. And further, they suggest that the partition of chief executive officer and board chairman should be selectively considered and applied.

Akhtaruddin et al. (2009) found that in their study corporate governance and voluntary disclosure in company annual reports of Malaysian listed companies there is a significant relation between Board size and voluntary disclosures and there is a positive relationship between the proportion of independent non-executive directors and voluntary information. A team of researchers (Dalton *et al.*, 1998; Pearce &Zahra,

1992) found board size to have a positive association with firm performance. The advantage of this view is that a larger board will have a representation of people with different backgrounds, who bring knowledge and intellect to the board and thus improve the quality of strategic decisions. This basically refers to the difference in risk preference of inside and outside directors (Eisenberg *et al.*, 1998).

Diane K and McConnell (2003) their studies on international corporate governance suggest that there is a huge difference between the corporate governance of developed economies and others especially in board composition and ownership structure. Donaldson and Davis (1991) examined two theories of corporate boards: agency theory and stewardship theory. They found that the ROE returns to shareholders are improved by combining, rather than by separating, the role-holders of the chair and CEO positions. Hart (1995) in his article, suggests that corporate governance issues arise wherever contracts are incomplete and agency problems exist. La Porta *et al.* (2000) in their studies suggest that the legal protection of investors as a potentially useful way of thinking about corporate governance. Strong investor protection may be a particularly important manifestation of the greater security of property rights against political interference in some countries.

Vafeas (1999) studied over 307 firms from the period 1990 to 1994 found that board meeting frequency is related to corporate governance and ownership characteristics in a manner that is consistent with contracting and agency theory. His results further suggest that board activity, measured by board meeting frequency, is an important dimension of board operations.

Madhuri and Thenmozhi (2016) suggests it is an Indian context study. The sample is from BSE SENSEX firm from 2013 to 2015. They found 7 distinct variables of Corporate Governance as Board size, Board composition, Board Meetings, Block shareholdings, Duality, ESOP, and Whistleblower policy

Table 1 Corporate governance Variables

SL No	Variables	Definitions
1	Board size	Number of Board Members
2	Board composition	Number of outside Directors
3	Board meetings	Number of Meetings
4	Block shareholding	Percentage share hold by shareholders
5	Duality	Post of Chairman and CEO
6	ESOP	Employee Stock Option Plan
7	Whistleblower policy	employees have access to the Head of the Business

Source: Literature Review

3. Intellectual Capital Efficiency

One of the widely accepted definitions of intellectual capital is "The possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations competitive advantage" (CIMA 2001). According to Barry Brinker, (2000) defined by a precise description of the analysis of the concept of knowledge management and work to benefit from the development of the survival and continuity which formed the high value of the company, which separated the human intelligence, skills, and creativity.

The term 'The Intangible Asset Monitor' it is suggested that individuals in organizations create external and internal structures to express themselves. Indicators can be created that monitor External Structure (Customers and Suppliers), Internal Structure (Organization), and People's Competence. The indicators can be incorporated into a management information system. Indicators that monitor renewal, efficiency, and stability are preferred. A matrix framework, called "The Intangible Assets Monitor," is suggested by Sveiby (1997). A comprehensive management framework for intellectual capital is yet to be developed, especially for collecting and reporting intellectual capital formation James and Petty (2000).

Bukh (2003) states that the information about intellectual capital is important for companies and it is used for the valuation of companies in the market place. And also it will give confidence among investors to gain impressions of future growth of companies. In this decade firms are changing from physical to knowledge-based firms so a new standard for measurement of knowledge is required. Pulic(2000) established an entirely new accounting system, which is focused on value creation and not solely on costs. VAIC™ method is merely a step towards the creation of an accounting system for a new economic era. VAIC™ offers a changed perspective on business analysis. Via current business performance of Human capital and Structural capital, a link with IC value, and the market value of a company has been established.

This competitive era IC has been widely considered as the best tool to deliver the business successfully. The increasing gap observed between market value and book value of many companies has taken into account towards investigating the impact of intellectual capital (IC) on business performance Akhavan et al. (2011). The human capital (HC) efficiency, a subcomponent of IC efficiency, is found to have a greater impact on financial performance than other IC sub-components. The development of suitable techniques like IC is necessary in these rapidly changing environments effective of achieving the goals Meles et al. (2016); Calisir et al. (2010).

The role of human and structural capital efficiency as determinants of achieving technological innovation outputs. The attracting and recruiting of competent human resources and the ability to develop mechanisms to capture and translate knowledge, expertise, and skills of organizational members and stakeholders are important to achieve technological innovation outputs Manzanque et al. (2017).

4. Firm Performance

Financial performance is taken to calculate firm performance in this study. The firm size was the most important factor influencing its financial performance. ROA, ROCE, EPS may use as tools for measuring it Kakani and Kau (2002). The firm size and firm ownership have some impact on the level of profitability and firm size is negatively related to performance Ramasamy et al. (2005). Upadhyay (2004) suggests different ratios along with return on investment, return on equity, return on assets, earning per share, dividend per share, and asset utilization ratio are used to assess the profitability of the companies.

The stakeholders of a company have some relationship with firm performance. Moneva et al. (2007) strategic commitment of the company to its stakeholders is positively related to its social and financial performance. Many domestic and foreign firms in the sample have a strategic process in place. It is an annual process and considered a very important organizational activity. There is a high impact on strategic planning on financial performance of Major Industries Efendioglu and Karabulut (2010).

Significant relationship between working capital management and firm performance. Financial constraints have no effect on the relationship between working capital management and financial performance of companies Delavar (2015). The financial performance model must have a tailored structure according to the industry Kangari et al. (1991). The performance indicators ROA, ROE, ROCE the profitability and financial structure affect the performance of a firm Allouche et al. (2008).

There is a significant difference between profitability ratio as per operating profit margin ratio, Gross profit margin ratio, and Net profit ratio but there is no significant difference between the return on capital employed Biswas (2007).

Asha Sharma (2013) compared two techniques which are EVA and traditional performance measures to examines the value creation strategy to represent the market value of the company. The traditional measures include PAT, EPS, ROCE, and RONE. She concludes that EVA better represents the market value of the company in comparison to conventional performance.

5. Corporate governance on intellectual capital

Every organization is planned to make maximize its revenue along with its market image through transparent governance systems and proper management of intangible assets. Good corporate governance welcomes greater intellectual capital efficiency (Mouritsen 1998).

There are a lot of CG variables used to measure it. Board size, board composition, duality, Board structure as corporate governance variables and tested towards the intellectual capital efficiency. Corporate governance plays an important role in orienting the amount of disclosure of intellectual capital. The relationship between corporate governance and disclosure is complex and multifaceted. On the one hand, the effects of board leadership, size, and composition on disclosure are consistent with a complementary relationship between corporate variables and disclosure in monitoring managers Cerbioni and Antonio (2007).

Keenan and Aggestam (2001) suggests that the recent problem faced by governance is the increasing shift toward knowledge-intensive organizations. The responsibility of corporate governance for creating, developing, and leveraging the intellectual capital existing and embedded in the people, structures, and processes of the firm. The size of the board of directors is a statistically significant factor in IC disclosure also increase in shareholder ownership by institutional investors is a obstruct to IC disclosure Hidalgo et al. (2011).

Appuhami and Bhuyan (2015) indicate that there is a relationship between corporate governance mechanisms (chief executive officer [CEO] duality, board size, board composition, and subcommittee composition) as CG variables and intellectual capital. There is an impact of corporate governance mechanisms on human, structural, and relational capital disclosure Li et al. (2008). The intellectual capital disclosure increase with company size, dual corporate governance models, industry, listing on sustainability indexes, and increases in board size up to a maximum point (beyond which disclosures decrease). Intellectual capital disclosures are reduced by CEO duality and by a higher proportion of independent directors on boards Rodrigues et al. (2017).

Al-Sartawi (2018) suggests that there should be a formal guideline for intellectual capital disclosure to create harmony in disclosing information and to reduce the agency costs through improving the practices of corporate governance mechanisms. Family duality (i.e., where the positions of CEO and chairperson are occupied by two individuals from the same family) is negatively associated with the extent of intellectual capital disclosure Muttakin et al, (2015).

Corporate governance mechanisms strongly influence the quantity of intellectual capital information disclosed Specifically, companies with larger boards, a higher proportion of external directors, and higher block holder ownership are associated with higher levels of intellectual capital disclosure Alfraih (2018).

Gangi et al. (2019) states that corporate social responsibility engagement and corporate governance structures influence the firm efficiency in managing intellectual capital. His study contributes to managerial practice by demonstrating the causal effect of corporate social responsibility on value-added intellectual

capital (VAIC) measures and the positive impact of corporate governance on both corporate social responsibility engagement and the efficiency with which firms manage their intellectual capital. Finally, there is a relationship between corporate social responsibility engagement, corporate governance practices, and the determining factors of intellectual capital efficiency within a comprehensive framework. The role of intellectual capital as a mediator between corporate governance and corporate performance relationship. the corporate governance variable, the board of directors can contribute to the intellectual capital efficiency of the companies which in turn results in higher corporate performance Saeed et al. (2015).

Haji and Ghazali (2013) suggest that all corporate governance variables namely board size; independent directors, board effectiveness, and position of the chairman (except family members on the board) were significant for giving an explanation about in quality of intellectual capital disclosure. Director ownership is negative relation with intellectual capital disclosure. Government ownership has a slightly significant with intellectual capital disclosure.

6. Intellectual Capital on Firm Performance

Riahi-Belkaoui (2003) says that the importance of the use of intangible resources in general IC in particular as mainly as a stable source of wealth creation; and the value of the total amount created as a measure of wealth creation. He also stands for explicit voluntary disclosure that would allow the measurement of both Intellectual capital and value-added.

The possibility of an alternative moderating relationship between the IC components of human capital efficiency and structural capital efficiency with physical and financial capital which impacts on firm performance Clarke et al. (2011). Tacit knowledge sharing significantly was found to contribute to all three components of IC, namely human, structural, and relational capital, while explicit knowledge sharing only has a significant influence on human and structural capital. IC components improve both operational and financial performance of firms. The influence of knowledge sharing on firm performance is mediated by IC. Explicit knowledge sharing has a greater effect on financial performance than operational performance, whereas tacit knowledge sharing has a greater impact on operational performance than financial performance Wang et al. (2014).

Inkinen (2015) states that the basis for value creation has moved from material production to intangible resources such as intellectual capital. The intellectual capital is estimated to be three to four times more than its book value, it is important for companies to understand how they are created, managed, measured, and evaluated. However, there are still many controversial and complex issues, and the intellectual capital rating is one of those. Hsu and Sabherwal (2011) argue that IC does not directly affect innovation or firm performance; instead, corporate information management (KM) communicates the effect of IC on innovation and firm performance.

The development of companies is influenced by the human and the structural capital, while profitability is additionally linked to the financial capital through the value-added intellectual capital coefficient Sumedrea (2013). The link of human capital to performance becomes substantive and significant only when it inter-relates with the other types of intellectual capital. In this instance, a significant interaction effect of human and innovation capital was found on performance Scafarto et al. (2016).

Mehri et al. (2013) explore that the aggregate measure of intellectual capital (VAIC) has a positive significant effect on M/B, ROE, ROA, and ATO. The quality of human capital, measured by several factors, is expected to play a positive role in technology innovations and financial performance Guo et al. (2012). The role of innovation capital in the creation of value for business organizations. Intellectual capital disclosure gets great attention in this decade. It is because the industry is changing to a knowledge-based economy where value creation becomes one of the crucial issues in the world and tends to be based on intangible rather than tangible assets Meihami et al. (2014).

The human capital and structural capital have a significant direct positive effect on firm performance, and also it suggests that structural capital plays a more important role in firm performance than human capital Liand wu (2004). The coefficient of human capital efficiency is positive and significant. Moreover, the influence of intellectual capital efficiency on firm performance is significantly greater in the case of the knowledge-based sector than that of traditional sector Maji and Goswami (2016).

Structural capital efficiency and capital employed efficiency were equally important contributors to firms be sales growth and market value. The growing importance of the contribution of intellectual capital to value creation was consistently reflected in the firm performance Smriti and Das (2018). Innovation capital efficiency has a moderating effect on the relationship between structural capital efficiency and profitability, meaning, depending on an increase in R&D expenses, the effect of structural capital efficiency on profitability also increases. Moreover, innovation capital efficiency has a direct impact on firms' productivity. The intellectual capital efficiency components have a moderating role in the relationship between capitals employed efficiency and profitability Bayraktaroglu et al. (2019).

7. Linkage among corporate governance, intellectual capital, and firm performance.

Basyith (2016) suggests all attributes of corporate governance other than the director's education, capital employed efficiency have an impact on firm performance moreover an effective corporate governance will increase the firm performance. Corporate governance has a positive relationship with firm performance. That means if there is a good corporate mechanism the firm shows a high performance. And the intellectual capital also directly related to firm performance Nkundabanyanga (2016),

Saeed et al. (2015) say that the corporate governance attribute board of directors should influence the Intellectual capital of firms and it was resulted to increase firm performance. Good corporate governance attracts efficiency in intellectual capital and it results in good firm performance. The mediating relation of corporate governance indicates that the linkage between intellectual capital and corporate governance may be derived from any other intervening attributes which may be any other areas in a firm Earnest and Sofian (2013).

Rompas et al. (2019) suggest that firm performance and intellectual capital have a positive impact. But corporate governance and intellectual capital on moderating attributes on firm performance have a zero effect. Moreover, company size has a positive relationship with firm performance.

8. SUMMARY

From the available literature, we reach the conclusion that board size is having a positive and significant impact on a firm's return on assets. Capital employed efficiency is also significant and positive. In a nutshell, one can conclude that board size and capital employed efficiency in the firm impact firm performance. The number of years a firm has been in operation also influences the performance. capital employed efficiency and human capital efficiency are having a positive (significant) and negative (significant) impact on a firm's returns on equity, the firm's corporate governance practices for increasing the efficiency of the firm.

Table 2: Corporate governance variables and their relationship with intellectual capital efficiency and firm performance

SL No	Corporate governance variable	Relationship with IC	Relationship with Firm Performance
1	Board Size	Positive	Positive
2	Board Composition (no of outside directors)	Positive	Positive

3	No of board meetings	Positive	Positive
4	Block shareholding	Negative	Negative
5	Post of chairman and CEO	Positive	Negative
6	Employee Stock Option	Positive	Positive
7	Presence of Whistleblower policy	Positive	Positive

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