LITERATURE REVIEW ON CORPORATE GOVERNANCE MECHANISMS: PAST, PRESENT, AND FUTURE

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ABSTRACT

This study is a literature review on corporate governance. Its objective is to consolidate our knowledge in this field, examine its evolution, and propose venues for future research. In our review of the past and present literature on various governance measures and their effect on firm performance, we find that the empirical results are mixed for many of the governance mechanisms studied. We propose that these mixed results may be due to applying a "one size fits all" set of governance measures which is not effective for all types of firms due to the complexity of organizations and the differences in ownership structures. We therefore explore more technologically advanced methodologies including machine learning. We believe that this line of research could not only improve and refine existing governance measures, but also allow us to better target which set of mechanisms might be appropriate for a firm based on its particular characteristics. We encourage future researchers in corporate governance to consider this approach in order to shed light and fill the gaps in this area of research.

Key words: Corporate Governance, Governance Mechanisms, Governance Quality, Performance Measures, Research Design

For many years, corporate governance has captured the interest of researchers throughout the world, especially in the aftermath of financial scandals such as Enron, WorldCom, and Parmalat, which resulted in significant losses for many stakeholders. Most of these scandals revealed failures and shortcomings in the governance system. Restoring investor confidence became essential, which required effective governance to reduce investment risk. As a result, corporate governance mechanisms have been extensively reviewed and improved (André and Schiehll 2004).

"Corporate governance" refers to all the control mechanisms established to protect investors and shareholders. They address the agency conflicts which stem from the fact that

shareholders' interests may diverge from those of the managers who control the firm. Research in this area aims to identify effective governance mechanisms that provide monitoring and control, while aligning the decision makers' interests with those of shareholders and other stakeholders. Effective governance mechanisms should therefore improve transparency, overall corporate performance, and ultimately, shareholder value (Gul et al. 2003). Hence, a large proportion of the research on corporate governance mechanisms measures their effect on firm performance.

Our knowledge of governance mechanism effectiveness has evolved over the past four decades, but more work is required. The objective of this paper is to provide a broad overview of the literature in this area for readers who are interested in learning about governance, and particularly for those who want to expand its boundaries. To this end, we focus on three aspects of the literature: mechanisms, performance measures, and research methods. Our research contributes to the literature in several respects.

First, while many studies focus on specific dimensions of corporate governance, we provide a broader spectrum of the many internal governance mechanisms, to provide a strong foundation. Second, our paper presents the evolution of corporate governance research along three perspectives: the past, which provides context and history; the present, which explains where we are in our journey; and the future, which proposes opportunities to pave the way for meaningful work. Finally, providing an accessible view of corporate governance informs not only researchers but also practitioners in accounting and governance, as our paper sheds light on how governance mechanisms impact businesses, capital markets, and ultimately their professions.

Our paper contains six sections. In the first section we discuss the theoretical foundation of corporate governance studies. Next, we outline our method of identifying papers to include in our

review. Those papers are then discussed in three sections according to a timeline representing the past, present, and future of corporate governance research. The last section concludes the paper.

THEORETICAL BACKGROUND AND THE NEED FOR CORPORATE GOVERNANCE

The need for governance mechanisms has been recognized for as long as there has been a separation between corporate ownership and control. According to the premises of the classical agency theory documented by Jensen and Meckling (1976), this separation creates conflicts between shareholders (who are external to the firm) and managers (who have all the internal information) due to information asymmetry and the divergence of interests resulting from the different perceptions of risk by these two parties. It is therefore with the objective of alleviating managerial opportunism (disciplinary role) and aligning manager-shareholders' interests (maximizing the creation of corporate value) that these mechanisms are put in place.

However, this first classical version of agency theory caricatures a world of extreme capitalism, a simple world of highly diffused shareholdings in liquid capital markets, a world that does not consider the role of other financial stakeholders or the impact of different shareholding structures. Freeman (1984) extends the shareholder-based agency theory towards a stakeholder-based model to consider the interests of other capital providers such as financial institutions, employees, and governments. While the stakeholder model sheds light on the various needs of different claimants, corporate governance mechanisms have been largely developed to protect shareholders' interests therefore are not appropriate for protecting all stakeholders.

While agency theory relies on the assumption that managers are self-serving agents who seek to maximize their own benefits, stewardship theory instead proposes they are rather altruistic beings who are glad to serve, and whose interests are similar to those of firms' shareholders.

However, this approach may be seen as complementary to agency theory to the extent that the utility function (interests) of individual managers may or may not be based on maximizing shareholders' wealth.

Resource dependence theory offers a different theoretical perspective that is used to explore the effectiveness of governance mechanisms in contributing to an optimal allocation of a firm's various resources. This approach essentially focuses on board members as a key resource that can help optimize the firm's operations in addition to providing a monitoring role over management. For instance, Hillman et al. (2000) find that ownership on boards helps promote the firms' internationalization, especially in the case of large non-family blockholders. As with stewardship theory, resource dependence theory is generally considered a complement rather than a substitute for agency theory (Daily and Canella 2003).

Agency Theory and Ownership Structures: The Root of the Problem

Widely held ownership structures are very common in the US and the UK. Yet, in other countries such as Canada, a significant proportion of firms are closely held with a dominant shareholder having large stakes in the firm. Agency theory has therefore been refined to address the concentrated ownership context where the potential agency conflicts are between the dominant and minority shareholders, as opposed to the manager-shareholder model (see Bebchuk et al. 2000). These shareholder-shareholder agency conflicts are mainly due to the entrenchment of dominant shareholders and are identified in the literature as Type 2 (entrenchment-related) agency costs, whereas Type 1 is the classic misalignment at the manager-shareholder level (Villalonga and Amit 2006).

Dominant shareholders are usually actively involved in the close monitoring of management's activities, most often by being a director on the board or by holding an executive

position in the firm. Dominant shareholders have a vested interest in seeing the firm create value, as this increases their own wealth. Hence, many studies show a positive relationship between ownership concentration and performance (Morck et al. 1988; Claessens et al. 2002; Faccio and Lang 2002; Gompers et al. 2004; Bozec and Laurin 2008).

However, at higher levels of ownership concentration, dominant shareholders may be more risk-averse and, more importantly, they can become entrenched and effort-averse which may have a detrimental effect on performance (Morck et al. 1988; Cho 1998; Gompers et al. 2004). Accordingly, the relationship between ownership concentration and firm performance is found to be a non-monotonous (Morck et al. 1988) and non-linear one (Cho 1998; Gompers et al. 2004), with an alignment effect at lower levels of concentration but an entrenchment effect at higher levels. This entrenchment may be more problematic in the case where the dominant shareholder holds "excess voting rights", which are voting rights that exceed cash flow rights[1].

In this situation, the entrenchment of dominant shareholders becomes even stronger and can lead to expropriation of minority shareholder wealth (Bebchuk et al. 2000). This occurs because the dominant shareholders benefit from all the private gains generated through their control of the firm but do not bear the full costs of their suboptimal and self-opportunistic decisions, as most of these costs are externalized to the minority shareholders. Hence, excess voting rights have a negative effect on firm value and performance (Claessens et al. 2002; Cronqvist and Nilsson 2003; Villalonga and Amit 2006; Bozec and Laurin 2008).

Finally, for many economies characterized by closely held firms, a large proportion of these firms are controlled by family. In family-controlled firms, different stakes may be involved. A family firm's controlling shareholder often has more pressing concerns than optimizing the

[1] An example of this is where the shareholder owns rights that gives him/her 30% of the votes but only 5% of the dividends.

minority shareholders' wealth. Their main interest may be the preservation of socioemotional wealth (SEW), which are nonfinancial benefits connected to the family's emotional needs such as preserving the family dynasty and reputation (Gomez-Mejia et al. 2007; Berrone et al. 2012; Chrisman and Patel 2012).

The various forms of ownership structures may give rise to different agency issues (Type 1, Type 2, preservation of SEW) but all of them create a need for some governance measures to mitigate conflict. A "one size fits all" approach to governance may not be effective. For example, alignment through increased ownership may be a governance-related solution to alleviate Type 1 agency conflicts (granting shares to management helps align their interests with shareholders') but would amplify agency issues in the case of Type 2 agency conflicts (with entrenched dominant shareholders).

In this literature review, we report on what we now know about the effectiveness of governance mechanisms, what remains to be explored, and how advances in theories, data, and technology can help us learn more about effective governance. We first differentiate between external and internal governance mechanisms.

External Governance Mechanisms

External governance mechanisms are measures that are in place as a function of where a firm operates. Mostly they provide a disciplinary role for all firms within a jurisdiction, discouraging management's opportunistic behaviour and aligning their interests with those of stakeholders. These mechanisms can reduce the need for internal mechanisms as well as provide safety measures when internal mechanisms fail. External mechanisms protect the shareholders (and other stakeholders) through the legal system, the market for corporate control, the managerial labour market, monitoring by institutional investors, and disciplinary measures arising from financial

debt. Although insightful research emanates from the literature on external mechanisms, the focus of this paper is on internal ones.

Internal Governance Mechanisms

Internal governance mechanisms are established by the firm's shareholders and other stakeholders to monitor the activities of management and align their interests. Among these mechanisms, the predominant one is the board of directors. The role of the board is to oversee firm activities and ensure that managers make optimal decisions that are in the interest of shareholders. Board effectiveness is therefore key to the success of the firm.

Consequently, there has been extensive research on the effectiveness of boards and characteristics of their composition, namely board size, member independence, expertise, diversity, CEO-Chair duality, and their level of commitment. Early studies have also identified other internal governance mechanisms such as CEO compensation, executive director shareholdings, and debt financing (see Agrawal and Knoeber 1996; Coles et al. 2001; Weir et al. 2002; Core et al. 1999; Erhardt et al. 2003). This literature review is inspired by these studies, with a focus on the evolution of the following internal governance mechanisms: board size, CEO-Chair duality, board commitment, board diversity, audit committee, and CEO compensation.

LITERATURE REVIEW DESIGN

The objective of our paper is to explore the effectiveness of corporate governance mechanisms, and specifically how they affect firm performance. Our identification of the relevant literature therefore begins with a search of key terms related to this objective. Our approach is inspired by the literature reviews done by Carcello et al. (2011), McNulty et al. (2013), and Pimentel and Boulianne (2020).

To select the papers for inclusion in our review, we first perform a word search in Google Scholar. Our search includes both the terms "corporate governance" and "performance" as well as at least one of the following terms: "board", "independence", "diversity", "duality", "compensation", "size", or "institutional" located anywhere in the article. We perform this search separately for the 36 business journals in the *Financial Times* 50 list (FT50). Our initial corpus is comprised of the first 20 articles that appeared in each search, for a total of 720 articles. We narrow the list by choosing only articles that were cited at least 500 times, which gives us a reduced list of 250 articles (see Appendix). We then read the titles and abstracts to select papers that are relevant to our literature review question: how do internal governance mechanisms affect firm performance?

To test the robustness of our research method, this search was replicated in ProQuest (along with the following additional criterium: (1) peer-reviewed, (2) written in English, (3) scholarly journals or conference proceedings). We found that Google Scholar provided more variety, breadth, and a higher number of seminal papers, therefore based our literature review on the Google Scholar search.

For thorough coverage, we also review journals that specialize in governance, namely *Corporate Governance: An International Review*, *Corporate Governance*, and the *Journal of Corporate Finance*, and select seminal papers from these journals. We also search SSRN for relevant articles and find a few more to consider. Finally, in order to build on existing literature instead of replicating it, we perform a Google Scholar search for papers with "corporate governance" and "literature review" in the title and obtain 148 papers. Most of these are tangential to our literature review question but we identify 8 papers on internal governance mechanisms and performance, which we add to our corpus.

Next, we allocate the corpus of literature along the lines of Past, Present, and Future. Our approach is not to choose a mechanical cut-off between these three eras, but to place the literature in the context of "how things got started", "where we are", and "where we might go next". We paid less attention to the publication dates (some researchers were ahead of their time!) and more on the holistic view of our progress as a research community. Our analysis of the resulting papers (not tabulated) supports this approach, as there were no clear boundaries of when concepts and approaches began or stopped being used. In writing our section on the future of governance, we assumed a more flexible approach to selecting our papers, with a view to exploring new venues for future research.

THE PAST

Internal Mechanisms

Board Size

Board size, usually measured by the number of directors on the board, is an important governance mechanism since board size can affect how decisions are made. Many research studies have examined the impact of board size on corporate performance and the effectiveness of having a large or small board. In an early study, Fama and Jensen (1983) argue that too many directors on the board may be inefficient if it leads to coalitions and group conflicts, which enable the executive director to dominate the board. Moreover, having a large number of directors can make communication difficult and slow down the decision-making process.

In line with these arguments, Yermack (1996) examines the impact of board size on firm value in a sample of large US industrial companies from 1984 to 1991 and finds an inverse relationship between firm value and the number of directors. Yermack concludes that the board

becomes less effective as its size increases and the inefficiency stems from difficulties in communication and coordination. In a subsequent study, Eisenberg et al. (1998) find similar results with a sample of Finnish firms.

Conversely, some empirical results support the hypothesis that companies with larger boards perform *better* because having more directors brings more knowledge and expertise to the board, which enhances its effectiveness. Dalton et al. (1998) conduct a meta-analysis study that combines the results of several previous studies in the US, and document a positive relationship between board size and corporate performance. Anderson et al. (2004) find that larger boards have a significantly lower cost of debt. Coles et al. (2008) argue that larger and more complex firms need larger boards, and their study finds a positive association between firm size and board size.

However, a number of studies examining the effect of board size on firm performance do not find any significant effect (Bhagat and Black 2002; Chan and Li 2008). The conflicting findings in this literature suggests that the optimal size of the board may vary according to other firm-specific characteristics such as ownership structure and firm complexity. Further research on firm characteristics at a more granular and idiosyncratic level should illuminate more definitively the relationship between board size and performance.

Board Independence

Since boards play a crucial role in monitoring managers, having "independent" (outside) directors is important to make sure the manager's interests are aligned with those of the shareholders rather than with those of the directors connected to the manager. However, because the board oversees the company's activities and mission, it benefits greatly from having "inside" directors who are familiar with the specific operations and issues of the company.

In the aftermath of major corporate scandals and the adoption of the Sarbanes-Oxley Act (SOX) in 2002, corporate governance regulations became stricter, and board independence became exemplary of good governance. In the US, boards are now required to be comprised of a majority of independent directors. Although independence has now been prescribed, the literature examining the link between independence and firm performance has yielded mixed results.

Some studies have documented a positive relationship between board independence and firm performance. Rosenstein and Wyatt (1990) find that the appointment of outside directors positively affects share-price reaction. Neville et al. (2019) find that board independence reduces corporate misconduct such as earnings management, financial restatements, and fraud. Liu et al. (2015) observe a positive relationship between board independence and the performance of Chinese companies. However, some studies do not find any significant relationship between board independence and performance. Baghat and Black (2000) find that firms suffering from low profitability respond by increasing the independence of their board of directors but there is no evidence that this strategy works.

As more countries are harmonizing their governance practices to the post-SOX model, the incompatible views between practice and research should raise concerns: regulators perceive board independence to be an important governance practice, but the empirical findings remain ambiguous as to its effect on value creation. Perhaps this is another area that would benefit from a more granular analysis.

While there are some differences in the definition and criteria regarding “independence”, the most common measure of director independence is simply a binary variable measured

according to very general independence criteria.[2] This does not consider the friendships or connections a director may have with other board members, which could confound results. Recent developments in technology may be helpful here. The area of computational linguistics has techniques that can extract the names of board members from various public documents to create a network analysis for each director and provide a more robust measure of his/her independence with respect to the rest of the board.

CEO-Chair Duality

The Chair of the Board provides leadership for directors to act on behalf of shareholders, whereas the CEO is responsible for day-to-day management and the implementation of strategies endorsed by the board. Combining the roles of CEO and Chairperson is considered an obstacle to the effectiveness of control mechanisms that have been put in place by the organization. The "duality" also creates a conflict between the personal interests of the Chairperson/CEO and the interests of the firm's shareholders, which can manifest in high agency costs due to a power imbalance. Accordingly, Jensen and Meckling (1976) contend that separating these two positions is necessary to reduce agency costs and improve firm performance. However, empirical results do not always support this hypothesis.

Rechner and Dalton (1991) report no significant effect between the duality status and stock returns but find that dual structures have a significantly negative effect on accounting returns. Baliga et al. (1996) show that the financial market does not react significantly to the announcement of a change in the duality position. Dey, Engel, and Liu (2011) study the business performance

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[2] Directors are considered independent from the firm if they are not employed by the firm and do not have a material relationship with the firm (usually proxied by direct or indirect ownership of at least 10% of a firm's shares).

consequences of separating the two functions. They find that firms that separate the two functions generate lower announcement returns and subsequent stock market returns. Brickley et al. (1997) find similar results in an earlier study and conclude that the cost of separating the two positions outweighs the benefit of having a non-dual status. On the other hand, Donaldson and Davis (1991) find a positive effect between CEO-Chair duality and stock returns in a sample of US firms, whereas Boyd (1995) finds a positive relationship between duality and returns on investment.

While governance best practice codes recommend separating the CEO and Chairperson positions, the US Sarbanes-Oxley Act does not address this issue with a formal regulation. Nevertheless, the *Wall Street Journal* indicates the percentage of S&P 500 firms with CEOs occupying the Chairperson position has hit an all-time low in 2018, at 45.6%[3]. In Canada, the separation of the roles is recommended by regulatory authorities and governance experts as well as institutions such as the OECD and the Canadian Coalition (CCGG Report 2008), but it is not mandated.

Board Commitment (Frequency of Meetings and Attendance)

Another way to explore board efficiency is through the board's commitment, measured by the frequency of meetings and attendance of board members at these meetings. New governance codes strongly encourage companies to hold regular board meetings, and most countries promulgate requirements such as the minimum number of meetings, the maximum number of days between meetings, and the level of director attendance. These meetings are seen as important channels through which directors share information and make decisions, therefore strong board commitment should improve firm performance.

[3] Source: https://www.wsj.com/articles/more-u-s-companies-separating-chief-executive-and-chairman-roles-11548288502.

An early study by Miller and Norburn (1986) showed that board meeting frequency (measured by the number of meetings) impacts firm performance. Vafeas (1999) examines a sample of 307 firms and finds that a high number of annual meetings can be beneficial to the firm if the benefits gained exceed the costs incurred.

Executive Compensation

When monitoring costs are high such as in widely held firms, an incentive-based compensation contract can be an effective means of aligning the manager's interests with those of the shareholders. The longest ranging sample in the compensation literature is explored in Frydman and Saks (2008), who analyze executive compensation from the largest US firms from 1936 to 2005. The authors chart the evolution of this variable over time, and report that it follows a J-shaped pattern. According to their findings, compensation increased at a very low rate from the end of WWII until the mid 1970s, in an era when firms grew rapidly. However, the growth in compensation has increased at the same rate as the average market value of firms in the last 30 years, reflecting the increased use of equity in compensation contracts to motivate management to increase firm value.

Since the 1980s, researchers have highlighted both the importance of executive compensation in corporate governance and its impact on financial performance and stock market returns. In the US context, Larcker (1983) studies the association between an exogenous change in executive compensation contracts (the adoption of performance plans), changes in corporate capital investment, and share price movement. The author finds that stock markets react positively to the announcement of compensation plans that include long-term incentives that link executive compensation to the value of the company's shares.

Hall and Liebman (1998) investigate the association or “sensitivity” between executive compensation and firm performance. They collect CEO compensation data on 478 US companies from 1980 to 1994. They find a strong relationship between the CEOs’ personal wealth (compensation) and the wealth of the companies they manage, as measured by stock prices. The authors also find a strong correlation between incentive-based executive compensation (stock purchase and stock option grants) and firm performance.

On the other hand, Jensen and Murphy (1990, 2010) obtain different results in their analysis of executive compensation and company performance for 1,668 CEOs listed in the Executive Compensation Surveys published by Forbes from 1974 to 1986. The authors report that, for each $1,000 increase in shareholder wealth, the average executive's base salary and bonus increases by only two cents, and the value of their stock options increases by a mere 15 cents. Due to a weak statistical significance between pay and performance they conclude that, by itself, executive compensation cannot be considered as a mechanism that would potentially align executive-shareholder interests.

Higher compensation is not necessarily linked to better governance or better performance. In their seminal study, Core, Holthausen, and Larcker (1998) examine whether there is an association between the level of CEO compensation and the quality of firms’ corporate governance, and whether firms with weaker governance structures have poorer future performance. Using data from a sample of 205 publicly traded US firms over a three-year period from 1982 to 1984, the authors find that firms with weaker governance structures have greater agency problems, and that CEOs of firms with greater agency problems receive more compensation. Moreover, the performance of firms with greater agency problems is worse than other firms.

In a Canadian setting, Zhou (1999) compares the pay-performance sensitivity of Canadian and US firms. Using the return on common shares and Tobin's Q as performance measures, the author finds the sensitivity is lower for Canadian firms than for US firms, but the difference decreases as firm size increases.

Board Diversity

A diverse boardroom provides diversity of thought and competencies. One of the most commonly studied measures for board diversity is the proportion of women on boards. In recent years, there has been an increasing trend in females directors, partly due to countries mandating gender quotas on boards. This has inspired numerous empirical studies exploring the relationship between the presence of women on the board and firm performance.

Erhardt et al. (2003) examine the impact of diversity on firm performance. They measure diversity as the percentage of board members who are either a minority or female and find a significant relationship between diversity and firm performance, as measured by return on assets (ROA) and return on equity (ROE). Adams and Ferreira (2009) find that the presence of female directors can improve board effectiveness since they have a higher attendance rate, and their influence increases the men's attendance as well. In a Spanish study (a country with a tradition of having few women in the executive workforce), Campbell et al. (2007) find that the presence of female board members has a significant positive effect on firm value. Srinidhi et al. (2011) find that having female directors on boards, particularly when they are assigned to audit committees, has a significantly positive impact on earnings reporting quality. Gul et al. (2011) show that gender diversity has a positive effect on stock price informativeness, particularly in firms with weak corporate governance measures. They suggest that having gender-diverse boards may compensate for other weaknesses in corporate governance. In a Canadian study, Francoeur et al. (2008) find

that women occupying management positions have a positive effect on firm performance, but no significant effect was noted for women on boards.

However, Garanina and Kaikova (2016) find contradictory results in their study on US, Russian, and Norwegian joint stock companies for the period from 2004 to 2012. Their study shows that gender diversity on boards reduces agency costs in the US, increases agency costs in Norway, and has no influence at all in the Russian market.

In addition to gender, some studies examine board diversity through more complex, composite metrics such as the number of ethnic minorities on boards, foreign board members, age, education, and board tenure. A study by Mahadeo et al. (2012) shows that diversity (measured by gender, age, education, and independence) increases a firm's return on assets. The authors argue that the variety of perspectives that can emerge from diversity, generates value for the company.

Diverse cognitive attributes should also contribute to board effectiveness, and this is sometimes explored through an education lens. Early empirical studies find a positive relationship between the directors' education level and board effectiveness (Bantel and Jackson 1989; Wiersema and Bantel 1992), whereas more recent studies show that the education of board members is negatively associated with value creation (Mahadeo et al. 2012). However, by modeling the interactive effect of education and governance characteristics, Toumi et al. (2016) show that value creation is positively affected by a combined effect of education and independence.

Audit Committee

Board structure such as the existence and composition of board committees can be interesting from a governance perspective. Audit committees in particular have garnered much interest in accounting research. An audit committee provides oversight of the financial reporting process and

improves communication among directors, external auditors, and management. Prior literature has explored the effectiveness of audit committees as a governance mechanism. The focus has been on the existence of an audit committee, as well as the financial expertise and independence of its members. Carcello et al. (2011) review the literature on corporate boards and audit committees and conclude that "good" audit committees are associated with less earnings management and fewer cases of fraudulent reporting and restatements. They also conclude that "strong governance and strong auditing appear to be complements rather than substitutes" (Carcello et al. 2011,17). This stream of studies has decreased significantly since the Sarbanes-Oxley Act given that boards are now required to have a knowledgeable and independent audit committee.

Performance Measures

Early research in this area employed only a few performance metrics. According to Pintea (2015): "One of the most used ratios in the research regarding corporate governance is Tobin's Q, while among accounting ratios, the most common ones are return on equity (ROE), return on asset (ROA), and economic value added (EVA)" (847).

For example, Hill and Snell (1988) use ROA to test whether ownership concentration contributes to better corporate performance, whereas Demsetz and Lehn (1985) use the same proxy to explore whether accounting profits vary with the corporate ownership structure. An example of the use of EVA is Coles, Williams, and Sen (2001) who test the effect of CEO compensation, CEO tenure, board composition, leadership structure, and ownership structure on performance. They find strong evidence of a link between governance mechanisms and EVA, except for CEO salary which has a significantly negative coefficient in some of the regression models.

Although the measures were simple, researchers understood their complexity. For example, early analysis of the relationship between ownership concentration and performance showed the functional form to be non-linear (McConnell and Servaes 1990, 1995).

Research Methods

Early research methods often employed regression models with a small set of variables. In the audit committee and governance literature, “much of the governance research focuses on only a single variable” (Carcello et al. 2011, 20). Boyd et al. (2017) analyze the methodology of governance studies and report that the research conducted during the earliest period in their study (1997-2000) had relatively more survey data than in the present, and on average, had about one control variable in the basic regression models. However, concerns about endogeneity were evident in their earliest period, with 91% of researchers utilizing some approach to control for endogeneity.

THE PRESENT

Governance Mechanisms

Corporate Governance Quality Indices

The current work in governance has shifted to “composite measures” of governance to reflect the possibility of interplay among the characteristics. According to Pintea (2015), “One of the first authors that examined the relationship between corporate governance and performance using the multidimensional variable was Labelle (2002)” (849)[4]. This led to a proliferation of indices meant to reflect the governance quality more holistically. These indices can be commercial ratings (such

[4] Labelle, Real. "The statement of corporate governance practices (SCGP), a voluntary disclosure and corporate governance perspective." *Available at SSRN 317519* (2002).

as the Standard and Poor's rating, the Report on Business rating by the Globe and Mail, or the Institutional Shareholder Services governance index) or ratings developed by academics (i.e., the G-Score developed by Gompers Ishii and Metrick 2003).

Bozec and Bozec (2012) provide an exhaustive review of the literature that utilizes governance indices to examine the effect of corporate governance quality (CGQ hereafter) on firm performance. They observe that the empirical findings linking CGQ to firm performance in Canada and the US are contradictory, with some finding a positive link, while others find no significant relationship. However, they discover consistent results in most CGQ-performance studies conducted in emerging and transitional economies as well as in Europe, documenting that CGQ has a significantly positive effect on performance.

Samanta (2019) examines how the corporate governance regimes of developing countries have evolved over 20 years. Results are based on a survey conducted in 21 countries (Argentina, Brazil, Chile, China, Colombia, El Salvador, Germany, Hong Kong, India, Indonesia, Iran, Kenya, Nigeria, Pakistan, Peru, Philippines, Poland, Russia, South Africa, UK, and Vietnam) from 1995 to 2014. Local corporate governance experts from those jurisdictions were asked to fill out a detailed questionnaire based on archival and allied qualitative research. Then, a graded response model was used with a Kalman filter to create a dynamic corporate governance index based on the OECD Principles of Corporate Governance. The author finds that corporate governance norms in developing economies are converging on the shareholder primacy model, and this convergence has accelerated since 2000, reaching its peak in 2007/08.

Shukla and Limbasiya (2015) evaluate the board effectiveness of 77 Indian nonfinancial firms listed on the BSE-100 index in the years 2012-2013. The authors calculate a corporate

governance score[5] for each firm, and conclude that Indian firms should make an effort to improve their corporate governance practices. Most firms minimally abide to the required criteria of corporate governance for the sake of compliance only.

Cheung, Stouraitis, and Tan (2010) explore how corporate governance affects future company stock returns and company risk. Their sample is comprised of the largest companies that are constituents of the four major stock indices in Hong Kong in the years 2002, 2004, and 2005. Using a corporate governance index based on the OECD Principles of Corporate Governance[6], the authors show that good corporate governance is associated with both higher stock returns and lower market risk (beta). The study also finds that family firms and firms with concentrated ownership structures are associated with poor corporate governance, and that these firms seem to be improving their corporate governance practices more slowly than others.

The ownership structure effect is studied with Canadian data in Di Vito and Bozec (2012). The authors examine the effect of the controlling shareholders' entrenchment on firm performance while focusing on the mitigating effects of corporate governance quality, as measured by the Report on Business index published in The Globe and Mail[7]. They find significant evidence that the negative impact of the dominant shareholders' entrenchment is attenuated when corporate governance practices are strong.

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[5] Annual reports are analyzed, and the score is calculated based on: 1) board characteristics; 2) disclosure and transparency; 3) non-mandatory provisions; and 4) stakeholders' rights.

[6] This index assesses five areas of governance: the rights of shareholders, equitable treatment of shareholders, the role of stakeholders, disclosure and transparency, and responsibilities of the board.

[7] This index is constructed using four different governance measures: 1) Board, which assesses the independence of the members serving on the board, the audit committee, and the compensation committee; 2) Compensation, which captures, among other things, whether the directors and the CEO are required to own stocks; 3) Shareholder rights, which evaluates different scenarios that could impair shareholder rights, including the presence of nonvoting or subordinate shares, and employee stock options; 4) Disclosure, a measure on the availability and the quality of information on corporate governance. The index is calculated as the sum of each of the four sub-indices, with a maximum score of 100 marks.

Other Mechanisms

In addition to using indices, researchers have expanded into more complex and comprehensive versions of the traditional governance mechanisms. For example, the impact of the background and knowledge of the key players has gained traction whether at the board, committee, or management level (Khan et al. 2018). There is more interest in exploring the interaction of CEO characteristics on governance and performance rather than model the CEO and the board as two discrete elements (Sundaramurthy et al. 2014). Using a literature review on family firms, Piper (2003) illustrates how the research context has evolved to include more actors, multiple relationships, and more appropriate theoretical foundations. Although there seems to be less interest in statutory diversity measures, we are seeing more interest in exploring diversity through demographics such as age, educational background, tenure, and cultural background (Khan et al. 2018). The shareholders are no longer considered passive recipients of agency problems, as there is an increased focus on actions taken through shareholder activism (Gillan and Starks 2000).

Performance Measures

The current literature contains numerous new performance measures and "niche" extensions of prior work. Gitundu et al. (2016) review governance studies from 2002 to 2013 and report that while the use of ROA, ROE, and Tobin's Q remain popular, some authors have expanded to exploring *efficiency* indicators such as total sales, sales-per-employee, and asset turnover. Gonzales-Bustos (2016) notes an increase in the use of *innovation* such as R&D investments as performance measures since 2005. The cost of capital is another extension of the effect of governance on the firm (Toksal 2004).

Endrikat et al. (2020) select 82 studies for a meta-analysis of the studies' results on governance and Corporate Social Responsibility (CSR). They note a clear trend toward more CSR studies being published around 2019. Their meta-analysis provides evidence that CSR is positively related to board size, director independence, female presence on the board, and the presence of a CSR committee, but the association between CSR and CEO duality is not significant.

Beyer et al. (2010) synthesize the literature on governance and *disclosure*. They discuss previous work that indicates that ownership concentration is associated with reduced earnings timeliness and informativeness, and that institutional ownership is associated with increased disclosures.

The earnings management angle has been expanded to include *real earnings management* (the manipulation of earnings through real business activities) according to a literature review by Sanad et al. (2019), which finds that real earnings management can be mitigated by independent boards.

According to Kovermann and Velte (2019), the *tax avoidance* literature has gained traction since 2012, and initial findings suggest that the association with governance is complex and multidimensional.

Research Methods

Qualitative Studies

The human aspect of governance makes the topic a natural outlet for qualitative studies. McNulty et al. (2013) analyze 78 qualitative studies on corporate governance and share their insights. The prevalent setting in this research is Europe (mainly the UK), with a focus on boards. The dominant technique used is interviews (62), followed by archival data (22),

observation (12), surveys (12), and participant observation (6). By engaging directly with the actors and settings of governance, these researchers are able to shed light on the power relations on boards, conceptualization of board tasks, group-based and team-production approaches, behaviours and influence processes, and how the heterogeneity of interests and knowledge shapes strategic decision-making.

Text Analysis

The governance literature has recently ventured into the world of text analysis. For example, Martikainen et al. (2019) develop the "tone measures" of 10-K reports by calculating the percentage of words with a tone that is either negative, positive, uncertain, litigious, modal strong, modal weak, constraining, or negating. They find the "total tone words" to be negatively associated with directors' age, and positively associated with male gender uniformity, education, financial expertise, and board turnover.

Regression Analysis, DEA, and SFA

Gitundu et al. (2016) conduct a literature review on data analysis methods and find that many papers use descriptive statistics, correlation and regression analysis, and applications of Data Envelopment Analysis (DEA) and the Stochastic Frontier Approach (SFA). The DEA uses linear programming to measure how effectively a set of inputs is used to produce a set of outputs. The SFA includes inefficiencies in its models when estimating the cost function. Where data is concerned, the authors note that "most studies in corporate governance research use panel data" (Gitundu et. al. 2010, 116), but Boyd et al. (2017) find that cross-sectional research designs are common.

Improvements in econometrics has led to better methods and models. Boyd et al. (2017) document a very high usage (81 percent of the studies) of regression analysis in current years and

an increase (since 2005) in specialized regression techniques such as logit/probit and structural equation models, as well as a shift from single- to multi-year data designs. Researchers have improved their models with more control variables, from the inclusion of fewer than one control variable (on average) in the earliest period examined to more than eight in recent studies. As models become larger and more complex, the use of principal component analysis is on the rise. However, endogeneity continues to be an issue, as well as the question of causality. To address this, many researchers include an instrumental variable or a set of lagged variables, or they estimate their models with change variables rather than levels.

Qualitative Comparative Analysis (QCA) and Bundles

Consistent with the move toward more composite measures of governance, data analysis has made great strides in capturing the interplay among variables. Many researchers have moved away from the traditional regression model, which assumes a linear relationship and clear, one-way directions of causality. Some are exploring the effect of a "configuration" of governance mechanisms on firm performance. The configuration approach is called QCA (qualitative comparative analysis) and includes techniques such as fuzzy sets, fuzzy logic, and governance bundles. Cucari (2018) evaluates the use of QCA in corporate governance and notes that although configuration analysis has been around for decades, there has been a strong upturn in this type of study since 2013.

Governance bundles have been used to study a variety of outcomes in addition to ROE, ROA, and Tobin's Q such as CSR, perceptions of IPO value, abnormal returns, stakeholder investments, innovation commitment, and shareholder voting patterns. The methodology is well suited to an exploration of whether the mechanisms are complements or substitutes (Yoshikawa et al. 2014) and provides a response to concerns about studies examining the impact of a single

governance mechanism on corporate performance. Some of the mixed results obtained in prior single-mechanism studies can be explained by the fact that some of the mechanisms are complements or substitutes for each other (Rediker and Seth 1995; Agrawal and Knoeber 1996).

Advocates of QCA claim they help us design more compelling models. For example, Misangyi and Acharya (2014) use QCA to explore how different configurations of corporate governance mechanisms can work together effectively to achieve high profitability in S&P 1500 firms. Garcia-Castro et al. (2013) show that "there are multiple governance paths leading to high firm performance, and that these practices do not always belong to the same national governance tradition" (390). Lewellyn and Fainshmidt (2017) "unpack" the CEO-Chair duality puzzle with a fuzzy-set analysis on 214 US firms. They discover that duality can be combined in a variety of different ways with other sources of CEO power into "power bundles". The authors propose four effective and four ineffective governance configurations that incorporate duality.

In an analysis of the QCA literature, Cucari (2018) is surprised to find that although QCA is meant to analyze small samples, most researchers use it on large samples. This may be a salient point for researchers interested in exploring corporate governance more granularly, as this usually results in smaller samples.

THE FUTURE

Academics around the world have contributed to the evolution of governance studies and have identified important insights into the impact of governance mechanisms on firm performance. However, after nearly four decades of research, there are many areas where we have not reached consensus. Are we missing something? In this section, we contemplate where the research community sees the future of governance studies by sharing some of the recommendations from the papers in our literature review, as well as our own thoughts.

Governance Mechanisms

Optimal Governance for Every Firm: Moving Away from the One-Size-Fits-All Paradigm

Traditional corporate governance mechanisms speak to Jensen and Meckling's (1976) world, with widely held firms, the presence of information asymmetry, and relatively high monitoring costs. Yet, there is much variation in ownership structures, leading to different issues and solutions. Widely held firms require governance mechanisms that focus on the alignment of managers' interests to those of shareholders. With highly concentrated ownership, the governance mechanisms should focus more on attenuating the dominant shareholders' ability to make choices that harm minority shareholders. Family firms may be preoccupied with the preservation of socioemotional wealth.

Many factors can affect the information asymmetry and monitoring costs such as external governance mechanisms, audit committees, disclosures, and board effectiveness. Most of the early governance research informs the "traditional" corporate structure, but a good deal more could be learned if we move away from the one-size-fits-all approach to governance.

Other Theories

Tosi (2008) suggests that we engage in a skeptical reassessment of our foundational theory in corporate governance. Agency theory assumes that the board represents the shareholders' interests, yet: " The process of electing board members is largely controlled by the top management and the current board of directors. It is very likely that new board members will have a stronger dependence relationship with the board and the top management than with the stockholders" (Tosi 2008, 160).

The theories used by qualitative researchers could offer many new perspectives. McNulty et al. (2013) suggest the following theoretical perspectives in their review of the qualitative

literature: sensemaking, discourse, power and influence, control, emotions, role and leadership, accountability, decision process, strategic renewal, and institutions. Carcello et al. (2011) propose exploring models from psychology, sociology, institutional theory, managerial hegemony theory, and stakeholder theory. While we may retain agency theory as our foundation, other theories have the potential to complement it.

Expanding on Current Mechanisms

While the current literature has branched out the mechanisms, more work needs to be done. For example, we could use better measures of board diversity. Merendinto et al. (2018) find that many boards are moving toward new models of leadership that “cut across traditional ‘silos’” (74) to produce a creative composite of the skillsets needed. Fenwich and Vermeulen (2020) believe that boards should be experimental in their composition to more comprehensively address the landscape changes caused by digital disruption. In addition to mobilizing technology, boards might include directors with expertise in relating to consumers and the Millennial generation, as well as ensuring that some members are “capable of playing ‘rebellious’ roles such as influencer, disruptor, and storyteller” (22). In addition, a more idiosyncratic and granular approach could aim to identify how well the director characteristics map out to what board actually needs.

A finer assessment of the board committees, their members, and their chairs could yield interesting insights. The effect of creating an environmental committee or an ethics committee would be of interest to many. An expansion into the role that management plays in governance is also warranted, with extensions beyond the CEO and CFO to other officers such as the Chief Risk Officers, Chief Ethics Officer, and Chief Data Officers. We expect to see more interest in learning how other stakeholders can influence firm operations, especially with a renewed interest

in firms' social contract and the potential for reputational damage through information shared on social media platforms.

The Process of Governance

Much of the research explores the association between governance and firm performance, but we must determine why those links exist. A look at the process of governance, decision-making, and dynamics in the boardroom would shed light on the essence of governance. Leblanc (2004) proposes studying how effective board chairs function in real time, how CEOs "posture" or conduct themselves, as well as an exploration of the effect of directors who have "independence of mind" rather than regulatory independence.

Performance Measures

The next generation of performance measures will depend on what mechanisms are being studied. However, we expect to see growth in social performance metrics such as the environment, sustainability, social impact, and the firm's adherence to the United Nations' Sustainable Development Goals (SDGs). As research questions move away from the one-size-fits-all approach, it would be logical to also consider variations in corporate goals and objectives instead of assuming the key performance measures are ROA, ROE, Tobin's Q, or market returns.

Research Methods

As explained earlier, some of the governance research methods have shifted to Qualitative Comparative Analysis (QCA) techniques. We expect this trend to continue and for researchers to embrace new opportunities mentioned below.

Variables

Carcello et. al. (2011) express a concern that researchers use different variables to proxy for the same mechanism in the studies they examine. Some key studies could be replicated with alternative proxies to verify their validity, and perhaps to encourage the use of more consistent measures. Alternatively, researchers could perform a meta-analysis of some research questions with all the different proxies used to study that question, to derive the "unknown common truth" of the proxies.

Data

Unstructured Data. One of the biggest "game changers" in accounting research might be access to Big Data, mostly in unstructured format. Much of the data used in the literature has been structured data, which is clearly defined data types with patterns that make them easily searchable (an Excel spreadsheet is a good example of this). However most of the new data being produced today are unstructured and freer in form, including digitized text, audio, video, and photographs.

Text analyses of information such as annual reports, transcribed meetings, and conference calls could shed light on the process of governance. El-Haj et al. (2019) explore the use of Computational Linguistics (CL) in the accounting and finance literature. They find that this area lags behind other disciplines, and they propose (and refute) four potential concerns that may explain this. The first is skepticism about the incremental value of qualitative disclosure over quantitative data, given that summary quantitative measures are able to impound information from multiple sources and are considered as more objective and verifiable. The second is a general distrust of the ability to apply computerized analyses to text due to the inherent ambiguity in language, and the need for context to interpret meaning. The third is a concern regarding the use of off-the-shelf tools in domain-specific documents filled with jargon and technical language. For example, "the Fog index for the average 10-K annual report exceeds 19.0, implying the disclosure

is unreadable" (El-Haj et al. 2019, 268). The fourth is the need to ensure that CL methods are applied for insights into meaningful economic effects, and not just as a novel application of off-the-shelf methods. The authors suggest, among other things, the use of Named Entity Recognition in corporate governance as a technique to extract the names of board members from various public documents to create a directors' network analysis.

Artificial Intelligence. An increasing amount of data can be collected and processed by artificial intelligence (AI), which consists of systems that can analyze analog inputs such as audio, video, and images and process the information for decision-making. For example, an analysis of the anonymized speech patterns (tones, speed, and pauses) of directors in a boardroom or a video analysis of their body language could eventually be made accessible for research purposes.

Social Media. The use of data from social media may introduce a fresh perspective on governance that incorporates the views of multiple stakeholders.

Beyond Archival Data. Boyd et al. (2017) track governance research and find that the "use of archival data has replaced primary survey data in studies" (Boyd et al. 2017, 2). However, to the extent that we need to start examining the *process* of governance, researchers may want to conduct more surveys, behavioural experiments, and field studies (Carcello et al. 2011).

Technology

Machine Learning

With new data sets available (especially Big Data) and computational power, the use of machine learning (ML) has increased. Nevertheless, the governance literature has lagged behind. ML is a system that uses algorithms that can process large datasets, detect patterns, and improve its ability to analyze information over time and with more data. A prevalent use of ML in accounting is for classification purposes. In particular, various ML techniques have improved our ability to classify

firms as fraudulent or to predict bankruptcy. These papers sometimes include corporate governance variables in their analyses.

Perols (2011) and Tang et al. (2020) are examples of fraud-prediction papers that discuss governance. Perols (2011) examines the performance of six statistical and ML models on US data but does not find their governance variable (the proportion of inside directors) to be important determinants of fraud detection. Tang et al. (2020) perform various ML tests to explore which "features" are valuable for predicting fraud in Chinese firms, where the features are categorized as financial (46 variables), textual (15 variables), or governance (13 variables). They find that most of the valuable features are financial, followed by textual, and finally governance. Two variables (equity structure and audit opinion) were found to be the most important among the governance set, and one variable (share concentration in the top-10 owners) was significant across all models.

Yousaf et al. (2021) is an example of a bankruptcy-prediction paper focused on governance. The authors use data on Chinese firms to compare three broad categories of models: static, dynamic, and ML to analyze the impact of five board attributes on bankruptcy. They find that board diversity (namely gender, age, education, expertise, and independence) has a negative association with financial distress, but that the board diversity attributes change with time. The ML models have higher predictive accuracy than the statistical models.

More recently, corporate governance variables have been included in ML analyses on current topics such as sustainability, as in Raghupathi et al. (2020). They apply text analysis and then cluster analysis to a corpus of shareholder resolutions in the US. The shareholder resolutions cluster around the following seven themes: Emission and Energy, Accountability, Product management, Politics, Board, Governance, and Regulation.

Zheng et al. (2014) apply text mining, semantic networks, and ML to assess the extent to which US firms comply with governance practices. They retrieve 8-K, 10-K, and proxy statement information from EDGAR and connect the text to a series of 200 questions from the "Corporate Governance Handbook 2005 Developments in Best Practices, Compliance, and Legal Standards". They then use ML to create a system that can summarize and rank any firm's adherence to the handbook in a matter of seconds. Their end product is an automated governance rating system. However, the implications of the ranking are not explored in their paper.

Erel et al. (2018) use ML to assist in selecting corporate directors. Using a database of director appointments in the US, they develop an algorithm that is efficient at predicting which directors will do poorly when compared to the candidates proposed by their algorithm. They find that the poorly performing directors "are more likely to be male, have more past and current directorships, fewer qualifications, and larger networks" (Erel et al. 2018, 1). Performance is measured as shareholder support in director re-elections, which is corroborated with firm profitability and the announcement returns of director appointments.

Creamer and Freund (2010) apply decision tree algorithms to S&P 500 firms to explore conditional relationships leading to high performance (measured as Tobin's Q). Their approach provides insight along two "sector groupings"[8]. For example, firms in Group 1 that have a debt-to-asset ratio below 0.55 perform well overall, and the best performers within this subset have limited the compensation of the top officers to $1.2 million; large firms with long-term asset-to-sales ratios of less than 1.2 and at least 18% of insiders on the board are particularly successful; small companies improve their performance when directors are granted fewer than 1,200 stocks.

[8] The firms are grouped along geographic and industry sectors, but generally Group 1 industries are energy, materials, industrials, and consumer discretionary while the rest of the firms are in Group 2.

Firms in Group 2 with operating profit margins greater than 0.15 performed best, but those with lower margins can succeed by increasing stock options and reducing stock compensation.

Applying ML to corporate governance questions is a small but growing field. However, the complexity of board composition and performance is likely best studied with a mixture of quantitative and qualitative metrics, with the latter possibly collected in a Big Data setting. We therefore encourage researchers to explore this area of the literature more creatively and shed more light on this important topic.

CONCLUSION

In this literature review, we synthesize the research on how internal governance mechanisms relate to firm performance. We trace the mechanisms, performance measures, and research methods over time to bridge what we already know about governance to how this knowledge might evolve in the future. Governance mechanisms have expanded to capture more complexities. Where early studies typically examine the impact of individual governance mechanisms on performance, the current stream of literature often examines the simultaneous effect of multiple governance practices.

Measures of corporate performance have also changed over time, from the widespread use of Tobin's Q, stock market returns, ROA and ROE to the exploration of more precise variables suited to research topics such as the impact of governance on corporate social responsibility (CSR), innovation, disclosure, and tax avoidance. As for research methods, the journey began with surveys and simple linear regressions, but we are now seeing advanced analyses and machine learning.

The move towards a more holistic characterization of governance has spawned an interest in corporate governance indices (scores), which are constructed from a grid of multiple factors that foster good corporate governance. A more complex variation involves "qualitative comparative

analysis" techniques such as examining how well firms perform with different "bundles" of mechanisms.

While documenting the literature on corporate governance, we discerned that empirical results on many mechanisms remain mixed or inconclusive. We believe this is partly due to applying a one-size-fits-all governance solution to every type of firm. We propose that a fruitful area of research would involve exploring the mechanisms at a more granular level and tailoring them to the idiosyncratic needs of a firm. In our section on the future of governance research, we recommend the use of new data sources and technologies to move towards this more tailored approach. These tools will also allow researchers to (1) fill the gaps in the existing literature, (2) construct better measures of governance mechanisms, and (3) revisit and resolve some of the conflicting results. Finally, the future research direction should not only encompass improvements in data and methods but also embrace theorical foundations from other disciplines. There is still much to learn.

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APPENDIX

Our search includes both the terms **corporate governance** and **performance**, as well as at least one of the following terms: **board, independence, diversity, duality, compensation, size** or **institutional**.

For each business journal in the FT50, we first select the top 20 papers based on Google Scholar's relevance score to obtain a total of 720 papers. Next, we reduce the corpus to papers that were cited at least 500 times, for a total of 250 papers. The following figures depict the distribution of papers selected by year and journal.

Figure 1 Total publications by year

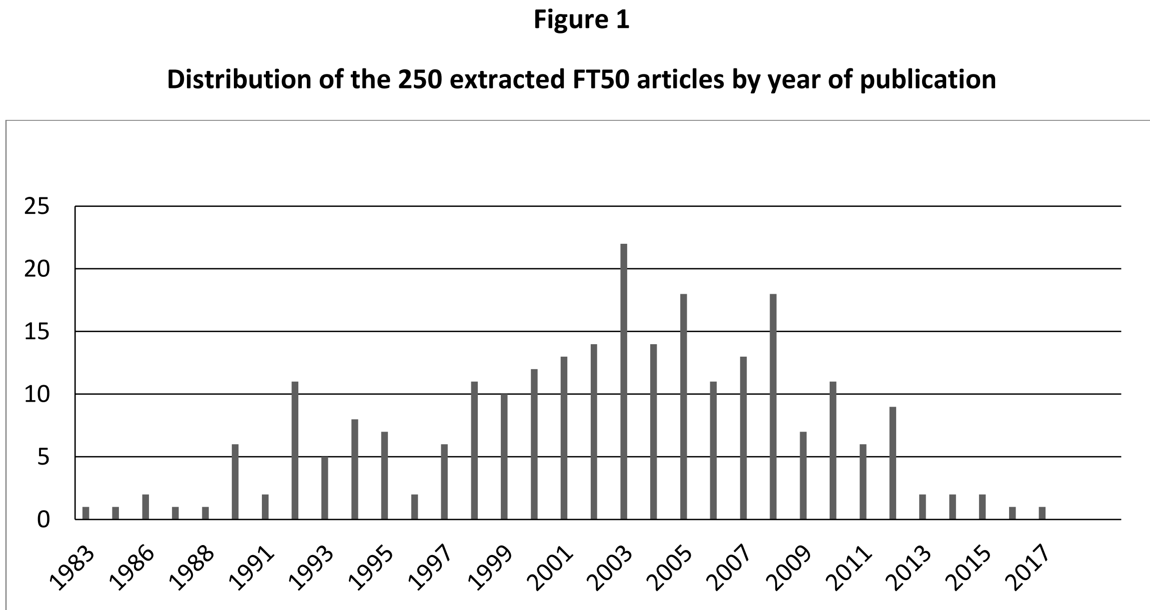
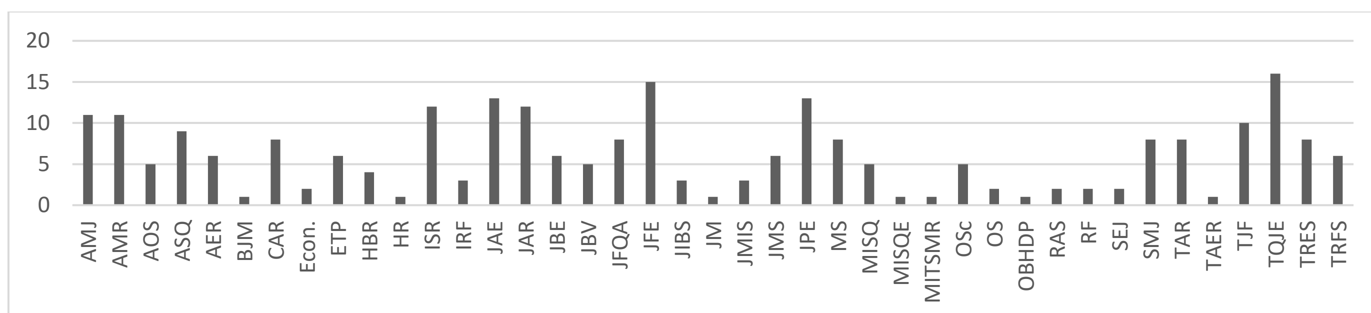


Figure 2 Total publications by journal (with acronyms listed below)

Figure 2

Distribution of the 250 extracted FT50 articles by Journal



Acronym	Journal
AMJ	Academy of Management journal
AMR	Academy of Management Review
AOS	Accounting, Organizations and Society
ASQ	Administrative Science Quarterly
AER	American Economic Review
BJM	British Journal of Management
CAR	Contemporary Accounting Research
Econ	Econometrica
ETP	Entrepreneurship Theory and Practice
HBR	Harvard Business Review
HR	Human Relations
ISR	Information Systems Research
IRF	International Review of Finance
JAE	Journal of Accounting and Economics
JAR	Journal of Accounting Research
JBE	Journal of Business Ethics
JBV	Journal of Business Venturing
JFQA	Journal of Financial and Quantitative Analysis
JFE	Journal of Financial Economics
JIBS	Journal of International Business Studies
JM	Journal of Management

JMIS	Journal of Management Information Systems
JMS	Journal of Management studies
JPE	Journal of Political Economy
MS	Management Science
MISQ	MIS Quarterly
MISQE	MIS Quarterly Executive
MITSMR	MIT Sloan Management Review
OSc	Organization Science
OS	Organization Studies
OBHDP	Organizational Behavior and Human Decision Processes
RAS	Review of Accounting Studies
RF	Review of Finance
SEJ	Strategic Entrepreneurship Journal
SMJ	Strategic Management Journal
TAR	The Accounting Review
TAER	The American Economic Review
TJF	The Journal of Finance
TQJE	The Quarterly Journal of Economics
TRES	The review of economic Studies
TRFS	The Review of Financial Studies