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THE CONTINUOUS DEVELOPMENT AND CHALLENGES OF CORPORATE GOVERNANCE

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The corporate governance landscape has continuously evolved, and new perspectives and challenges have emerged. Some are general trends; others are challenges that likely will continue to shape corporate governance in the near future. The international conference "*Corporate Governance: Participants, Mechanisms and Performance*", hosted by Virtus Interpress together with Virtus GCCG in November 2023, addressed these perspectives and challenges. This introduction reveals some of the main issues presented and discussed by the conference participants.

Great emphasis has been put on stakeholder governance (Gouldson & Sullivan, 2014; Phillips, 2003; Freeman, 1984). Traditionally, corporate governance has primarily focused on shareholders' interests (Jensen & Meckling, 1976). However, there is a growing emphasis on stakeholder governance, which includes considering the interests of employees, customers, communities, and the environment. Shareholder activism continues to be a significant factor. Activist investors increasingly influence corporate decisions, including board composition, executive compensation, and strategic direction (Brav et al.,, 2008). This relates much to the recent movement coined as ESG factors: environmental, social, and governance. ESG considerations have gained prominence (Clark et al., 2015). Companies are increasingly expected to incorporate environmental and social factors into their governance frameworks. Investors, consumers, and regulatory bodies are paying more attention to a company's sustainability practices and social impact (KPMG, 2020). Therefore, regulatory frameworks governing corporate governance are subject to change. Companies must stay abreast of new regulations and international compliance requirements (Ioannou & Serafeim, 2017).

At the same time, opportunities and challenges arise with the digital transformation that has impacted both social and corporate levels (World Economic Forum, 2016). The rapid pace of technological advancement poses challenges for corporate governance (Tricker, 2015). Companies need to navigate issues related to data privacy, cybersecurity, and the ethical use of emerging technologies like artificial intelligence (Kearney, n.d.). Ensuring effective cybersecurity governance is crucial with the rise in cyber threats (National Institute of Standards and Technology, 2018). Boards are expected to be more active in overseeing and managing cyber risks to protect the company's assets and sensitive information (PwC, n.d.-b). At the board level, executive compensation packages are scrutinized (Murphy, 2013). Shareholders and stakeholders increasingly focus on ensuring that executive pay is tied to long-term performance and aligned with the company's overall strategy (Bebchuk & Fried, 2004).

Diversity and inclusion have become focal points in corporate governance discussions (Catalyst, 2018). There is increased recognition of the importance of diverse boards and leadership teams in decision-making and risk management (Credit Suisse Research Institute, 2019). The issue of board gender diversity and firm performance is still one of the cornerstone issues of the corporate governance research (Capuano & Carabelli, 2023; Tenuta & Cambrea, 2023; Morrone et al., 2022). Events like the COVID-19 pandemic have underscored the importance of effective crisis management and resilience planning in corporate governance (Hasan, 2023; Setiany et al., 2023; PwC, n.d.-a). It is important to note that the corporate governance landscape is dynamic, and new perspectives and challenges have emerged (Tricker, 2015). Traditional governance models may give way to more agile and adaptive structures that can respond quickly to changing business environments and stakeholder expectations (World Economic Forum, 2018). These trends reflect a broader shift toward more inclusive, sustainable, and forward-looking corporate governance practices. Given the dynamic nature of corporate governance, it is advisable to stay updated on the latest developments and emerging trends in the field (Ioannou & Serafeim, 2017). Keeping abreast of current developments, regulatory changes, and industry trends is crucial for companies to navigate the evolving corporate governance landscape (KPMG, 2022).

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SESSION 1: BOARD OF DIRECTORS' PRACTICES

AN EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN EXECUTIVE TEAM HETEROGENEITY AND CORPORATE INNOVATION

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Abstract

Innovation is the inexhaustible driving force for the development and progress of an enterprise, and as a strategy maker and decision maker, the executive team plays a pivotal role in the development of an enterprise. A series of processes, such as information collection,

strategy formulation, strategy implementation, and evaluation of strategy, ultimately affect the innovation investment of enterprises (Cannella et al., 2008). Executives with different background characteristics have differences in cognitive structure, values, knowledge base and technical ability, and their information collection channels and observation perspectives are quite different, so they will make different strategic decisions.

Therefore, it is very important to explore how the top management team’s (TMT) heterogeneity will affect the enterprise’s innovation so that the enterprise can build a more reasonable TMT structure and make more effective strategic decisions.

Several theories including upper echelons theory, information decision theory, and similarity attraction theory provide the reasoning for how the TMT heterogeneity can affect the innovation behaviour of companies. These differences in the characteristics of the TMT members allow for different information acquisition channels, information interpretation methods, and perspectives. Furthermore, heterogeneity is linked to higher levels of comprehensiveness in problem thinking and increased open disagreements between the TMT members. On the contrary, TMT heterogeneity will increase the cost of communication, weaken the cohesion of the enterprise, and affect the enthusiasm and effectiveness of decision-making. In terms of innovation, the existence of heterogeneity can stimulate the TMT’s innovative thinking, so this study focuses on the impact of heterogeneity on enterprise innovation. Building upon previous research and using the dimensions of the age, gender, and educational background of the TMT, this research studies the impact of the heterogeneity of the TMT on enterprise innovation in the current economic environment.

Using the data of listed companies in China from 2016 to 2020 as a sample, this study finds that the executive team’s age, gender, and educational background heterogeneity are positively correlated with corporate innovation. Then, according to the characteristics of Dickinson’s (2011) cash flow portfolio, the company’s life cycle stages are divided. The research results are as follows:

1. The start-up companies of the sample are listed companies; thus, they have already reached the requirements for listing. In the case of these companies, the age heterogeneity contributes negatively to the corporate innovation.

2. During a bull market, there is a negative correlation between age heterogeneity and corporate innovation in a sample with companies in the growth stage, while gender and educational background heterogeneity have no impact on corporate innovation.

3. The age, gender, the heterogeneity of educational background can effectively promote enterprise innovation.

4. In the sample in a recession period, the heterogeneity of age and educational background can effectively promote enterprise innovation.

In different growth stages, the heterogeneity of the background characteristics of the executive team has different influences on enterprise innovation, which proves the stage characteristics of the enterprise growth process.

These findings provide a platform for re-evaluation of the promoting and hiring practices of listing companies.

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EVALUATING THE APPLICABILITY OF SITUATIONAL LEADERSHIP THEORY IN SMALL AND MEDIUM-SIZED ENTERPRISES

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Abstract

The current research examines the applicability of situational leadership theory (SLT) in the context of small and medium-sized enterprise (SME) management, particularly in the road freight sector. The primary goal of this study is to empirically investigate and evaluate the use of various situational leadership styles in the management of SMEs. The current study's sample was drawn from the population of registered road freight companies in Durban, South Africa. A sample was drawn from this population using convenient sampling techniques and methods. The findings of this study demonstrated the positive impact of SLT on SME management. In fact, SME owners and managers will be inspired to comprehend the managerial role of appropriateness behavioural styles in context-specific business situations. The study also recommended that SMEs' owners and leaders improve their leader sovereignty and follower skills, as these frequently interact in predicting poor follower performance and attitudinal responses. Furthermore, the current study has provided SME owners and managers with the tools they need to guide the improvement and effectiveness of personal leadership.

1. PURPOSE

Leadership theoretical paradigms range from early trait theory to behavioural theory and situational approaches. The latter approach was developed in response to the current revival of charismatic leadership and its corollaries, servant leadership, transformational leadership, spiritual leadership, principled leadership, and ethical leadership (Northouse, 2016). Although the literature on situational leadership is growing, the applicability of situational leadership theory (SLT) in small and medium-sized enterprise (SME) management has been largely ignored until recently. However, the realities of business have prompted scholarly investigations into the relationship between employees and SME leaders. This study aims to close this knowledge gap by examining the various leadership styles used by SME leaders in the road freight industry to maintain the success of their enterprises.

This study focuses on the role of SLT in the management of SMEs, specifically among a sample of SME owners and managers in the road freight industry in the Durban region of South Africa's KwaZulu-Natal province. The primary goal of this research study is to investigate and accurately evaluate the use of various situational leadership styles in the management of SMEs. This study aims to examine leader responsibilities as well as the evolution of these leadership styles in SME management. The current study aims to provide answers to the following question:

RQ: How willing are SME owners and managers to compromise or adopt the SLT?

2. BRIEF LITERATURE REVIEW

2.1. Road freight small and medium-sized enterprises

Small and medium-sized enterprises have played and continue to play an important role in the economic growth of the majority of countries around the world (Lekhanya, 2016). In developing countries, SMEs account for 60% of total employment and up to 40% of gross domestic product (GDP) (World Bank, 2023). In South Africa, SMEs account for approximately 34% of GDP, 60% of all jobs, and 91% of all formalised businesses (Fatoki, 2019). South Africa's SME sector is a significant driver of employment in a country with one of the world's highest unemployment rates (Global Entrepreneurship Monitor [GEM], 2020). SME success is positively related to South Africa's long-term economic growth (Van Scheers, 2016). According to Dzwigol (2020), global economies rely on the success of SMEs to create jobs, consume local resources, reduce poverty levels, and contribute positively to national revenues.

According to Merven et al. (2019), the South African road freight industry accounts for 5% of the country's GDP, 2.5% of total employment, and more than 70% of land freight payload. South Africa serves as the continent's regional hub for the road freight and logistics sector due to its developed infrastructure and strategic location within the Southern Africa Development Community (SADC) (Arndt & Roberts, 2018). Numerous issues, such as total cost of ownership, shifting demand to expanding markets, the viability of existing business models, obsolete technology, ineffective management, and leadership strategies, are constantly confronting the world's road freight industry (Zhang et al., 2020).

2.2. South African view of leadership

South African leaders are facing diverse challenges within the organisations; however, the most common challenge is that many South African corporations are over-managed and under-led (Deloitte, 2020). The results of a recent research study (Moletsane et al., 2019) reveal that employee trust in leaders is alarmingly low. Only 7% of workers agree that management makes the right decisions in uncertain times and that senior management's actions are completely consistent with their words. Even though the business environment of today is more competitive, complex, and demanding than it has ever been, many organisational leaders find it difficult to maintain the trust of their subordinates and resort to using antiquated leadership models, which are frequently ineffectual and the root of many organisational issues. The leaders of tomorrow's organisations need to uphold higher standards, exhibit moral qualities, and satisfy the demands of an increasingly complex yet cynical world in order to earn the trust of organisational stakeholders (Moletsane et al., 2019).

According to Adams at al. (2020), leadership in South Africa is deeply rooted in the country's complex history and diverse cultural landscape. The nation's struggle for freedom and the subsequent dismantling of apartheid have significantly shaped the South African view of leadership. In this context, leadership is not merely seen as a position of authority, but as a responsibility to foster unity, equality, and social justice.

Adams at al. (2020) further state that the South African view of leadership also recognizes the importance of empowering marginalized communities. Leaders are expected to address economic disparities, provide equal opportunities, and champion social inclusivity. The emphasis on servant leadership, where leaders serve the needs of the people, aligns with the ideals of a democratic and egalitarian society. Ubuntu, an African philosophy emphasizing interconnectedness and communal well-being, plays a crucial role in shaping the South African view of leadership. Leaders are expected to embody Ubuntu by prioritizing the collective good over individual interests. This philosophy fosters a sense of shared responsibility and highlights the importance of empathy and compassion in leadership (Asiimwe, 2023).

2.3. Situational leadership theory

Hersey et al. (1979) have found their SLT in earlier research studies of leader behaviour. They identified four behavioural leaderships: *directing*, *coaching*, *supporting*, and *delegating*, which are evaluated by the LEAD (leadership, effectiveness, adaptability, description) instrument (Silverthorne & Wang, 2001). The theory envisages that the degree to which these behaviours are effective is obviously depending on the subordinate task maturity and subordinate psychological development. Subordinate task maturity is evaluated by using such factors as ability, education, and experience, while subordinate psychological development is evaluated by using such factors as self-esteem, willingness, and motivation (Thompson, 2003).

Hersey et al. (1979) have determined four major situational leadership styles, which are *directing* (higher task and low relationship), *coaching* (higher task and higher relationship), *supporting* (lower task and higher relationship), and *delegating* (lower task and lower relationship). The conceptual basis of these situations stands on the fact that the more follower's developmental level increases, the more leader's effective behaviour engages less instruction and less supportive relationship (Papworth et al., 2009). Nevertheless, leader effectiveness is optimised by corresponding leader's behaviour with the follower's readiness.

2.4. Situation leadership theory in small and medium-sized enterprise management

For SMEs, especially in the road freight industry of Durban, situational leadership is invaluable. The industry is characterized by rapid changes, unpredictable challenges, and a diverse workforce. Leaders in this sector must be adaptable, switching between leadership styles based on the task at hand and the team they are leading (Robinson et al., 2020). The road freight industry in Durban, like many sectors in South Africa, is shaped by both global business practices and local cultural nuances. Situational leadership, with its emphasis on adaptability and flexibility, is crucial for navigating the unique challenges and opportunities of this sector. By understanding the broader concepts of leadership and integrating the South African perspective, leaders in Durban's road freight SMEs can drive their companies towards sustainable growth and success (Wu & Peng, 2022).

The SLT's role in SME management is paramount. Its emphasis on flexibility, employee development, delegation, motivation, decision-making, and crisis management aligns remarkably glowing with the multifaceted challenges faced by SME leaders. By embracing this approach, SME managers can navigate the intricate landscape of SMEs with finesse, enabling sustainable growth, employee empowerment, and overall organizational success (Soomro et al., 2021; Naushad, 2021).

3. RESEARCH METHODOLOGY

In situations where the variables are known and reasonable methods of measuring or controlling them can be developed, quantitative research is appropriate. The key leadership styles and their application by SME managers is a quantifiable and controllable phenomenon. As a result, this empirical study has been carried out in such a way that the key leadership styles are described and tested within the context of SLT. The study was conducted in Durban, South Africa's largest city, which had a population of 3,228,003 at the time of the study. The sample was drawn at random from a pool of 712 registered road freight companies in Durban. The sample size of this study, however, was made up of 20 truck company managers who participated in the study. To analyse the coded responses from the structured questionnaires, the researcher used the Statistical Package for the Social Sciences (SPSS) version 24. The researcher used descriptive statistics to describe the primary data features in this study.

4. FINDINGS

The findings showed that the majority of respondents were vastly male and widely recognised as SME managers and owners. The Cronbach Alpha has been used in reliability testing to ensure internal reliability. This shows that consistency was valid, that the instrument can be used in different situations or at different times, and that using a larger sample size would not have resulted in different results. It was recognised that the understanding of situational leadership styles by business owners was better than that of managers; however, the application of situational leadership styles among business managers was very poor. Thus, it was concluded that business owners have a good understanding of situational leadership styles, but they do not apply them in their managerial behavioural strategies.

5. PRACTICAL IMPLICATIONS AND ORIGINALITY

The overall purpose of this study has been to examine and to critically evaluate the use of different situational leadership styles in the management of SMEs. This study sought to review leader obligations and the evolution of these leadership styles in SME management. The study findings of the SLT depicted that the sample population was divided into two, that is, some of the respondents had a perfect understanding of SLT but do not apply it in their behavioural managerial strategies, and another group of respondents had less understanding of SLT, but they partially apply SLT in their behavioural management strategies. Thus, there was no clear outcome although the total application of situational leadership styles mean was high, indicating a relatively high ability of application of situational leadership styles, when considering the sample as a whole. In the study, it was shown that the majority of the respondents had a good understanding of situational leadership styles as many of them reported that they can strategically behave according to the current situation.

Because of the political stigma from the apartheid regime in South Africa, autocracy is viewed as an ineffective leadership style. Leadership training would be of high importance in the sense that it will help leaders to be attentive to the dominant leadership styles that they apply. As leaders, SME owners and managers will be aware of the impact of the leadership styles they display on their subordinates. Implementing situational leadership techniques is essential for improving SME management. The main agents of change in their organisations are the leaders. They are essential to the interaction with their followers as they work towards achieving their economic objectives.

Consequently, the acquisition of relevant vocational, technical, and business skills is generally regarded as one of the critical factors for success in SMEs. In addition, literacy and entrepreneurial awareness are seen as particularly important in enabling South African SMEs to advance from survivalist activities to larger and better-earning enterprises.

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NOMINATION COMMITTEES IN ICELAND AND NORDIC COMPARISON: AN OVERVIEW

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Abstract

Nomination committees are becoming increasingly popular. A nomination committee, or a nominating board, is a group or committee responsible for selecting and nominating candidates for a company's board of directors. The primary purpose of a nomination committee is to identify and recommend qualified individuals who can effectively fulfill the responsibilities of the positions in question. Still, nomination committees' roles and work processes have not been much researched. Among those issues yet not solved is whether selection practices will be more professional and transparent by the existence of nomination committees. Nonetheless, according to guidelines on good corporate governance, there are existing arguments for how beneficial nomination committees can be for good governance practices. This research compares and presents similarities and differences regarding nomination committees in the Nordic countries. The Nordic countries, being similar in many ways, have not all taken the same path regarding nomination committees. Hence, it makes an interesting comparison study. Guidelines for governance are similar and, in all essentials, comparable

to what is happening in the Nordic countries. Therefore, it must not be forgotten that companies can deviate from the guidelines' recommendations as their circumstances require. It can be assumed that good governance, including nomination committees, is one of the things that companies should adopt more and more if considering the development in other countries, e.g., the Nordic countries. The activity of foreign investors has also led to jumps in the development of governance practices.

1. INTRODUCTION

The primary role of nomination committees, according to the guidelines on corporate governance, is to nominate individuals or groups to sit on the board. Their purpose is to create a platform for presenting candidates for the board and assessing the suitability of individual candidates to carry out their roles, ensuring that the group running for the board has sufficient breadth in terms of knowledge, experience, and background, as well from the company's policy, needs and activities and to ensure that there are a sufficient number of individuals of both genders (Ruigrok et al., 2006). It is also their role to assess the independence of prospective directors by the provisions of the relevant guidelines on governance (Eminet & Guedri, 2010). This implies a regular assessment of the skills and capabilities of the board and what new skills and capabilities are required given the board's environment, the corporation's risks, and required skills for the upcoming few years, given its strategy and environment (Hutchinson et al., 2015). Also, in many places, the nomination committee and the board chair are jointly tasked with performing an assessment of board and individual board assessment (Sjöstrand et al., 2016).

With the appointment of nomination committees, a straightforward arrangement is established for the nomination of directors at the annual general meeting of companies, e.g., creates conditions for shareholders to make informed decisions. It is possible to nominate more individuals than the number of board seats elected and to be able to consider views on a diverse composition, the nomination committee may propose two or more lists of directors. Also, some board members may directly represent the institutional shareholders' specific interests in companies essentially controlled by institutional investors. Conflicts emerge when the interests of stakeholder groups are not appropriately balanced or harmonized. Shareholders appoint board members, usually outstanding individuals, based on their knowledge, skills, and ability to make good decisions. Once a board has been formed, its members face conflicts of interest between stakeholders and the company, between different stakeholder groups, and within the same stakeholder group. When a board's core duty is to care for stakeholders, such as shareholders, all rational and high-level decisions are geared to favor that particular group. However, the concerns of other stakeholders may still be recognized. Board members must address conflicts responsibly and balance the interests of all individuals involved in a contemplative, proactive manner. Thus, nomination committees should consider the interests of all stakeholders, even when the shareholders elect them.

Research indicates that the existence and independence of nomination committees increase the likelihood of appointing active directors who are more likely to protect the interests of all shareholders. Companies are also said to be able to benefit from the experience of those who sit on nomination committees and have previously participated in the recruitment process, in addition to which the process can contribute to the further participation of owners. A special nomination committee, instead of, e.g., board members handling the election process, can ensure that the committee only has the task of appointing board members and does not perform general board duties simultaneously. However, the committees have also been criticized. In Iceland, there have been questions about whether shareholders can go against the proposals of nomination committees, questions concerning the mandate of nomination committees, their costs, and whether they should be sub-committees governing or reporting to shareholders, to name a few.

2. REVIEW OF THE LITERATURE: COMPOSITION OF NOMINATION COMMITTEES

The corporate governance guidelines in the Nordic countries contain similar views and arguments as to why it might be desirable for a board member to sit on a nomination committee. The Norwegian guidelines state in the notes that account is taken of the fact that elected directors of a company with experience of board membership have an understanding of the company's position. In Sweden, it has been considered that the chairman of the board is, to a large extent, the primary source of information for the nomination committee on the company's position and future strategy, thus defining the conditions prospective board members must meet.

The guidelines for nomination committees in the Nordic countries differ regarding whether board members should sit on nomination committees. The Swedish guidelines are comparable to the Icelandic ones, as it is assumed that board members can sit on a nomination committee if they are not a majority of the committee members. According to the Danish guidelines, board members can sit on the committee, and the committee members can all be board members. However, the committee is also under the board (Committee on Corporate Governance, 2020). The same applies to the guidelines for nomination committees in Finland; if they are part of the board, they should only be appointed by the board members (Securities Market

Association, 2020). If, on the other hand, the committee reports to shareholders, the board members shall not have a seat on it.

The guidelines on governance state that the committee shall evaluate prospective board members based on competence, experience, and knowledge, in addition to the points of view that are otherwise discussed in the guidelines on the size and composition of the board. The committee shall also utilize the results of the board's performance evaluation regarding its composition and the competence of the board members. The nomination committee's role is to assess prospective board members' independence and ensure gender ratios in the company's board. According to the guidelines, the committee's proposals shall be based on this assessment. In all its work, the committee shall consider the overall interests of the company's shareholders, and care shall be taken to ensure that the individuals nominated by the board as a whole have sufficient knowledge and experience to carry out their roles. To consider views on the diverse composition of the board, there is also the possibility that the nomination committee submits proposals for two or more lists of board members.

The guidelines on governance in Iceland go further in outlining what should be stated in the reasoning of nomination committees than in the Nordic countries. However, they still need to be exhaustive, and a shareholders' meeting can formulate the nomination committee's procedures in its rules of procedure, among other things, about its procedures and justification for nominations.

3. DISCUSSION AND CONCLUSION

Above, issues regarding nomination committees, which have become increasingly common, have been presented. Among those issues is whether board elections will be more professional and transparent of the existence of nomination committees. According to the issuers of guidelines for good corporate governance and how to operate nominate committees, the case for improvements is argued, and research and experience from elsewhere also point in this direction.

It has not been long since companies began to embrace the advantages of nomination committees. However, as discussed above, the committees are still in the formative phase in many countries. In Iceland, the composition of investors is undoubtedly different from what happens in other countries. For example, pension funds are currently active investors in Icelandic business life, and attention has therefore been focused on them in some ways when issues concerning nomination committees come up for discussion. There are still other ways for shareholders to elect the board of directors; nomination committees are only one recent way for shareholders to do so.

One of the issues concerns the decision-making power of shareholders, but some believe that with nomination committees, the power of shareholders to choose their company's board is somehow reduced. Therefore, it must not be forgotten that the guidelines on corporate governance take into account the power of shareholders according to the Companies Act to have all the influence and make decisions about the company's activities, e.g., about whether a nomination committee will be established and how its activities will be conducted and what limits will be set for it. Therefore, it is mainly up to the shareholders of companies that have decided to establish a nomination committee to shape their activities according to their circumstances. Therefore, it must not be forgotten that the shareholders ultimately elect the directors and are not bound by the nomination committee's proposals, as previously reported. It is also essential to ensure that the proposals of the nomination committees are submitted in time for the general meeting so that the shareholders have the discretion to take a position on them. It should also be noted that the Companies Act contains instruments and tools that can benefit smaller shareholders and provide them with minority protection.

Guidelines for governance are similar and, in all essentials, comparable to what is happening in the Nordic countries. Therefore, it must not be forgotten that companies can deviate from the guidelines' recommendations as their circumstances require. It can be assumed that good governance, including nomination committees, is one of the things that companies should adopt more and more if considering the development in other countries, e.g., the Nordic countries. The activity of foreign investors has also led to jumps in the development of governance practices, as they have been strong motivators in the establishment of nomination committees.

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TOOLS TO DEAL WITH DIRECTORS' REACTION TO FINANCIAL DISTRESS AND RISK: THE ITALIAN MODEL

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Abstract

The fear of failure and bankruptcy can paralyze decisions and make it difficult for directors to walk towards turnaround paths. Trying to manage the negative psychological connotation linked to crisis wording, the Italian Insolvency Code has introduced "warning procedures" intended as a tool aimed at supporting directors and corporate control bodies in identifying the first signs of crisis. If the first reaction is usually denial, then entrepreneur and directors need somebody who dialectically discuss their vision of the future exactly when decisions about it are taken and encourage the taking of timely decisions to resolve it. Therefore, the Italian model tries to find tools to deal with the board of directors' denial of critical issues by specific professional figures.

The Board of Statutory Auditors (B.O.S.A.) is dedicated to the *ex ante* supervision of board of directors and the company's management actions. It supervises first of all compliance with the law, the company statute, the principles of correct administration as well as the adequacy of the organisational, administrative, and accounting structure and its concrete functioning, and even more important the risks linked to directors' decisions.

The *supervision* activities and functions are completely different from audit ones — that express opinion regarding whether the financial statements are drawn up clearly and represent truthfully and correctly the financial and economic position of the company — and are entrusted, in the traditional governance system, to the B.O.S.A. who, in small and medium-sized enterprises (SMEs), can be composed by one independent professional so that it becomes a sole statutory auditor.

B.O.S.A is instead entrusted with specific intervention tasks in early warning which means timely interception of crisis signals. In the event of a potential crisis, B.O.S.A. performs a signaling role with a forward-looking approach to distressed situations.

A negotiated settlement is a new out-of-court tool introduced by the IC Code, which allows for lower costs and a confidential approach. It represents a tool to deal with directors where it allows the parties — debtor and creditors — to regulate their financial and non-economic interests through the agreement, providing support for the setting up and carrying out of the negotiations. This support is represented by the *facilitator* intervention of the independent professional (the *facilitator expert*). In the context of a negotiated settlement, the facilitator expert has the task of facilitating negotiations among the entrepreneur, the creditors, and any other interested parties, in order to identify a solution to overcome the imbalance conditions. In consideration of his function, the expert must be independent of all parties involved, impartial and confidential, appointed by a special commission part of the territorial competent Chamber of Commerce within a list of registered subjects with specific experiences or skills.

The expert is not comparable to the independent professional appointed by the debtor to express assurance opinion on the plan. Among the innovations introduced by the IC-Code there is the expansion of the institution of the assurance, as a focal instrument in terms of ascertaining the debtor's state of crisis both in a preliminary phase, on the basis of the *negotiated settlement* mechanisms, and in a possible subsequent phase with *crisis regulation procedures*. The independent auditor's — *attestator's* — work is important as the opinion he is asked to express — of course when positive and clean — helps to strengthen the reliability of the plan drawn up by management for the turnaround. Consequently, it improves the credibility of all commitments undertaken by the debtor for the recovery of the company. The opinion contributes to the knowledge of the company situation by third parties and creditors, especially if unrelated to the plan, so that the choices and renunciations they are faced with are decided and accepted taking into account a sufficiently robust, correct, and complete information base.

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SESSION 2: ACCOUNTING AND AUDITING

THE IMPORTANCE OF QUALITY IN THE RELATION BETWEEN EXTERNAL AUDITING AND GOVERNANCE: THE CASE OF GREECE

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Abstract

The purpose of this study is to examine whether a model based on financial ratios and non-financial variables can predict auditors' opinions (qualified or not) using a sample of 90 companies listed in the Athens Exchange[1] for the period between 2018 and 2022.

We used hand-picked data from the original annual reports, which can be found on listed firms' websites; our sample consisted of 450 observations. We utilized a probit model with 11 primary financial ratios together with non-financial variables, like auditor quality, auditor turnover and corporate performance (profitable company or not), which, may, affect the issuance of auditors' reports.

Our results showed that there exists high explanatory power between financial ratios and auditor quality (type of audit firm) and qualifications in auditors' reports.

The specific model developed in this study can be beneficial for auditors in order to: a) predict the audit opinion type that can be issued by other auditors in similar circumstances, b) when evaluating new

[1] www.athexgroup.gr

(potential) clients, c) in order to determine audit scope for existing clients and d) to reduce possible lawsuits. We should note that recent literature shows that "auditing risk" is higher in emerging economies (like Hellas) and for that reason, firm failures and auditors' opinions are of particular importance.

Auditors should use analytical procedures in planning and reviewing engagements; specifically, they examine the specific conditions that are critical and may increase the material misstatement in firms' accounts, as well as they can design an effective audit program that will cover all critical areas (International Standard of Auditing — ISA 520). As ratio analysis is used in analytical methods and financial ratios are very dissimilar, we calculated financial ratios of: a) liquidity, b) debt, c) profitability, d) market value and e) asset management.

External audit denotes the uniqueness of external governance mechanisms that guarantee the quality of reported financial information. For that reason, an auditor's report is a plausible tool in order to validate the availability of financial information.

The results of this study showed that auditor quality is highly important and for that reason, audit committees should take that into account when choosing an audit firm.

This study has some limitations. First, the sample for each year is small (90 companies) as Athens Exchange is a small capital market; for that reason, our results may not be applicable to other, more developed capital markets. Second, this study represents the specific economic, cultural, corporate and audit market conditions that exist in Hellas.

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GENDER BALANCE IN THE ACADEMIC ACCOUNTING PROFESSION

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Abstract

The main aim of the present study is to examine gender balance and career outcomes in the academic accounting profession for European Union member countries including the United Kingdom, as a former member, and Norway, Iceland and Liechtenstein as parties to the European Economic Area. We hope we will contribute in this way to the growing literature exploring gender differences, and more precisely the status of women, in the business academic profession.

First, we constructed a dataset with all business schools with an accounting department in all countries under examination. We ended up with a dataset of about 150 universities. We overcame the limitations of differential structures/dimensions in the various countries of Europe by relying on Edurank.org, which is an independent metric-based ranking of 14,131 universities from 183 countries and includes both universities and business schools. University rankings are also reported for the purpose of the analysis. Specifically, the status of each university is assessed on the basis of the most widely accepted worldwide university rankings such as Shanghai Ranking and Times Higher Education Ranking.

Having formed the database of the universities, we then created a roster of the accounting faculty. The information was manually retrieved from university websites. The subsample of the accounting scholars was identified based on their teaching duties and publication records. The final sample consists of more than 1,200 faculty members in

the area of accounting. For each member of the accounting faculty, we report his/her name, the academic rank, the name of the institution at which the faculty member is employed and also, where possible, the name of the institution from which the faculty member received the PhD, the PhD year and the name of the institution at which the faculty member was first employed.

Career advancement in accounting academia is based on performance in three major areas: research, teaching and administrative service. However, it is accepted that research is the primary consideration in promotion and tenure decisions Therefore, for the roster of the academic accounting faculty under study we created a database with reports of publication productivity and specifically the total number of their publications, the number of solo publications, the number of co-authored publications, the number and gender of the co-authors and the number of citations. For this purpose, an application that communicates with the application programming interface (API) of the Scopus database was developed. In order to examine the relationship between gender and academic performance regression analysis is applied.

We believe that our research maps the accounting profession in Europe, provides evidence regarding gender balance and equality in the European academic environment and sheds light on the circumstances under which gender might make an impact. Overall, we hope that the results will delineate the current state of diversity, equity and inclusion (DE&I) in the European academic accounting profession.

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DETERMINANTS OF AUDIT FEES ACROSS CENTRAL AND EASTERN EUROPEAN COMPANIES BEFORE AND DURING COVID-19

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Abstract

Relevant and faithfully represented financial information stands as the key determinant of efficient capital allocation in financial markets. The primary function of an audit is to diligently investigate financial information provided by a company, assuring users that it is relevant and faithfully represented, offering a true and fair view about the company's financial health. Central to this assurance is the determination of audit fees, which extends beyond mere monetary transactions. These fees, shaped by market conditions and audited company-specific characteristics, serve as a barometer reflecting the accounting quality of the audited company. Influenced by factors such as the company's size, complexity, industry risk, and market competition among audit firms, audit fees capture the intricacy of a comprehensive audit process. During periods of disruption, such as the recent COVID-19 pandemic, businesses encounter distinct challenges that reflect on audit process. This leads to fluctuations in the pricing of audit services, as auditors respond and adapt to the evolving market conditions. However, despite of vital role of audit fee as a measure of accounting quality, there is a gap in literature concerning audit fees in Central and Eastern Europe (Rewczuk & Modzelewski, 2020; Groff et at.,

2017), especially in the times of market turbulences, such as COVID-19 pandemic (Hategan et al., 2022; Al-Qadasi et al., 2023). To bridge this gap, this study was taken aiming to identify the determinants of the audit fee of companies in this region. Additionally, it incorporated COVID-19 effects comparing audit fees and their determinants in periods before and during COVID-19.

The research sample comprised company-level data for the years 2019 and 2021, collected from the Bloomberg database. Based on the availability of data, a total of 101 Central and Eastern European companies were examined in year 2019 and in 2021 this number increased to 203. The dependent variable in this study was the size of the audit fee, while independent variables included audited company-specific variables, such as size of the auditee, its number of employees, ratio of foreign revenue, net profitability, size of receivables, size of inventory, net debt, book-to-market ratio, current ration, return on assets, type of auditor's opinion, industry risk, and size of auditor, representing audit company characteristics. The econometrical research employed a modified model of Hribar et al. (2014), tailored to the situation and available data on Central and Eastern European companies. Ordinary least squares (OLS) regression was performed to determine audit fee variables for the pre-COVID-19 and COVID-19 periods. Descriptive statistics revealed that, on average, companies in the 2021 sample paid almost 270,000 euros in audit fees compared to 213,000 euros in 2019. In the pre-COVID-19 period, the significant positive variables affecting audit fees were the total assets of auditee and auditors belonging to Big4 companies, while the current ratio was a significant negative variable. Analysis of the year 2021 data indicated that the total assets of the auditee, ratio of the auditee's foreign revenue, auditee's number of employees and auditor's belonging to Big4 companies were significant positive determinants of audit fees. The significance of variables outlines that the increase in the auditee's size determined by total assets, increases the audit fee. Both the size of the auditee and auditor affiliation to Big4 were identified as key variables determining audit fees in previous studies (Lawal & Ibrahim, 2022; Kanakriyah, 2020). Similarly, the same two variables proved to be the key determinants in the pre-COVID-19 and COVID-19 periods in the study of Al-Qadasi et al. (2023). It highlighted that the size of the auditee (belonging to Big4) is the most significant determinant in both pre-COVID-19 and COVID-19 models and, therefore, has the largest effect on audit fees. This study brings new evidence to audit fee research, representing the findings on audit fee determinants in Central and Eastern European countries during times of market turbulences.

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SESSION 3: CORPORATE OWNERSHIP AND CONTROL

ANALYSIS OF THE LONG-TERM EFFECTS OF THE VOLUNTARY BID RULE ON BRAZILIAN STOCK

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Abstract

The mandatory bid rule (also known as tag-along rights) is an important corporate governance mechanism that emerges in a company takeover and consists of acquirers granting non-controlling investors a price similar to the one made to the controlling shareholders. The goal of this research is to analyze if Brazilian companies that grant tag-along rights voluntarily have higher valuation and liquidity. We show evidence that the voluntary bid rule significantly affects common shares' liquidity. In contrast, we find no significant relation between firm valuation and tag-along rights.

1. INTRODUCTION

Corporate governance is made of numerous factors. It dictates the board of directors' election and composition, executive hiring, monitoring and compensation, takeover defenses and ownership structure. Although it has always been an important subject, in the last decades it has been increasingly discussed, especially due to major corporate scandals in different countries.

One of the most important forms of protecting minority shareholders is the mandatory bid rule. This rule states that, in a takeover, the acquirer of the controlling block must offer minority shareholders a fair price for their shares, usually a price greater than or equal to 80% of the price offered to controllers. Therefore, any control premium paid to the controllers will also be shared with minority shareholders.

There are many relevant studies related to the mandatory bid rule such as Bebchuk (1994), Bergström et al. (1997) and Bebchuk and Hart (2001). The literature points to both positive and negative effects. On the positive side, Carvalhal da Silva and Subrahmanyam (2007) show that the mandatory bid rule strengthens the protection of minority shareholders in the event of a takeover. By favoring equal treatment of all shareholders, the mandatory bid rule ensures that all shareholders share the control premium and may exit their investment. Schuster (2013) and Wang and Lahr (2017) find that the mandatory bid rule increases the efficiency of acquisitions. However, on the negative effects side, Burkart and Panunzi (2003) and Sepe (2010) argue that the mandatory bid rule raises the cost of acquisitions, prevents value-increasing transactions, and reduces the value of the companies.

The objective of this research is to analyze if companies that offer better tag-along rights have higher valuation, liquidity and lower volatility. We study Brazilian listed companies and find that the voluntary bid rule significantly affects common shares' liquidity, but has no impact on firm valuation.

2. DATA AND METHODOLOGY

Our sample is composed of 343 different types of shares of Brazilian companies (208 common and 135 preferred). Most common shares (141 out 208) grant better tag-along rights. In contrast, only a small proportion of preferred shares (29 out of 135) has tag-along rights.

We estimate fixed-effects panel regressions to analyze whether tag-along rights affect valuation and liquidity. We estimate separate models for common and preferred shares, according to the equation below:

$$Q = \beta_1 + \beta_2 TAG + \beta_3 TAGC + \beta_4 TAGP + \beta_5 SIZE + \beta_6 LEV + \beta_7 ROA + \beta_8 NM + \varepsilon \tag{1}$$

$$LIQ = \beta_1 + \beta_2 TAG + \beta_3 TAGC + \beta_4 TAGP + \beta_5 SIZE + \beta_6 LEV + \beta_7 ROA + \beta_8 NM + \varepsilon \tag{2}$$

where, Q is Tobin's Q, LIQ is shares' liquidity, TAG is a dummy variable that takes the value of 1 when the firm grants tag-along rights for at least one type of share, $TAGC$ is a dummy variable that takes the value of 1 when the firm grants tag-along rights only for common shares, $TAGP$ is a dummy variable that takes the value of 1 when the firm grants tag-along rights only for preferred shares, *SIZE* is the logarithm of total assets, *LEV* is firm's leverage, *ROA* is the return on assets, and *NM* is a dummy variable that takes the value of 1 when the firm is listed on new market governance segment.

3. RESULTS

Table 1 shows the results of the panel regression using Tobin's Q as a dependent variable, for both common and preferred shares. No coefficient on tag-along rights is statistically significant, so we can conclude that there is no significant relation between market valuation and the voluntary bid rule. With regard to the control variables, financial leverage is positively related to the valuation of common and preferred shares. In the case of preferred shares, we also can see that Tobin's Q is positively related to ROA and negatively associated with firm size.

Table 2 shows the results of the panel regression using share liquidity as a dependent variable. The coefficient on *TAG* and *TAGC* are positive and statistically significant at 5% and 1%, respectively, so there is evidence of a positive relation between common share's liquidity and the voluntary bid rule. In contrast, we find no significant results for preferred shares. Therefore, there is evidence that the tag-along rights significantly increase the liquidity of common shares but not that of preferred shares.

Table 1. Firm valuation and tag-along rights

Variable	*Common shares*			*Preferred shares*		
TAG	0.06 (0.90)			-0.09 (0.44)		
TAGC		0.00 (1.00)			0.07 (0.49)	
TAGP			-0.12 (0.87)			-0.08 (0.53)
SIZE	0.06 (0.90)	0.06 (0.90)	0.06 (0.90)	-0.22*** (0.01)	-0.22*** (0.01)	-0.22*** (0.01)
LEV	4.20*** (0.00)	4.20*** (0.00)	4.20*** (0.00)	1.05*** (0.00)	1.05*** (0.00)	1.05*** (0.00)
ROA	-3.22 (0.65)	-3.22 (0.65)	-3.22 (0.65)	0.54*** (0.01)	0.54*** (0.01)	0.54*** (0.01)
NM	0.06 (0.89)	0.10 (0.81)	0.09 (0.75)	0.27 (0.14)	0.13 (0.45)	0.20 (0.23)

*Note: The p-values are reported in parentheses. ***, ** and * indicate statistical significance at 1%, 5% and 10%, respectively.*

Table 2. Share liquidity and tag-along rights

Variable	*Common shares*			*Preferred shares*		
TAG	0.33** (0.02)			-0.06 (0.88)		
TAGC		0.35*** (0.01)			-0.36 (0.55)	
TAGP			0.04 (0.65)			0.26 (0.37)
SIZE	-0.04 (0.55)	-0.04 (0.55)	-0.04 (0.55)	-0.26 (0.20)	-0.24 (0.23)	-0.26 (0.20)
LEV	0.00 (0.41)	0.00 (0.41)	0.00 (0.44)	0.00 (0.53)	0.00 (0.54)	0.00 (0.58)
ROA	-0.11 (0.55)	-0.11 (0.55)	-0.10 (0.58)	0.11 (0.63)	0.11 (0.63)	0.11 (0.61)
NM	0.32 (0.18)	0.30 (0.21)	0.58*** (0.00)	0.02 (0.97)	0.31 (0.64)	-0.13 (0.72)

*Note: The p-values are reported in parentheses. ***, ** and * indicate statistical significance at 1%, 5% and 10%, respectively.*

4. CONCLUSION

There is a consensus in the literature that the expropriation of minority shareholders is more likely in firms with poor corporate governance provisions. Among the forms of protecting minority shareholders are the tag-along rights (also known as mandatory bid rule). To shed further light on the impacts the mandatory bid rule has on firms, this work analyzes if the voluntary offer of the bid rule affects the firm valuation and liquidity of Brazilian firms. We find that there is no significant relation between firm valuation and the voluntary offer of the bid rule. When it comes to shares' liquidity, our findings indicate that the voluntary bid rule increases the liquidity of common shares.

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TOKENIZATION IN CORPORATE GOVERNANCE: TRANSFORMING OWNERSHIP AND TRANSPARENCY

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Abstract

The intersection of corporate governance and tokenization is a rapidly evolving field that presents gaps in our understanding. While previous research has primarily focused on the technical and legal aspects of tokenizing shares, it has often overlooked the practical and managerial implications for corporate governance. This knowledge gap is especially concerning given the increasing global adoption of tokens, which directly affects governance structures.

The trajectory of blockchain technology has undergone various phases. Initially, it was seen as a versatile tool with applications such as share trading and the potential to replace traditional corporate boards with decentralized autonomous organizations (DAOs). However, significant technological challenges have arisen, including issues of interoperability and the creation of cryptocurrencies without a well-established foundation, necessitating a fundamental shift in our awareness.

The nascent opportunity lies in the tokenization of shares, which is still in its early stages. It is imperative to investigate and delineate potential scenarios and implications for corporate governance. This exploration not only provides an avenue for scholars to delve into this innovative field but also triggers new dynamics among stakeholders.

Practitioners find themselves at the forefront, adapting to regulatory guidelines for blockchain platforms. The primary objective of this study is to delve into the multifaceted risks and opportunities associated with share tokenization and its profound impact on corporate governance. Given the uncharted nature of this evolving domain, the primary goal is to establish a comprehensive research agenda that supports more in-depth studies and academic inquiries in this field.

In the world of finance and beyond, blockchain is a digitally distributed, decentralized ledger across a computer network. It plays a vital role in facilitating the recording of transactions by creating a new block and permanently appending it to the existing chain every time new data is added, ensuring a lack of centralized control or single points of failure. In conjunction with blockchain, smart contracts emerge as self-executing software programs. These contracts operate autonomously, triggered when predefined conditions are met, such as the terms agreed upon by a buyer and seller. Crucially, they are coded within the blockchain, rendering them immutable and resistant to alteration.

Moreover, the concept of digital assets and tokens takes shape in this digital era. These assets, existing solely in digital form, encompass a wide array, from cryptocurrencies and stablecoins to central bank digital currencies (CBDCs) and non-fungible tokens (NFTs). They also include tokenized versions of real-world assets, such as art, concert tickets, and corporate shares, which can be efficiently traded on blockchain platforms, increasing liquidity and accessibility.

In the ever-evolving landscape of blockchain technology and finance, we've explored significant concepts like initial coin offerings (ICO), initial exchange offerings (IEO), and security token offerings (STO), and tokenized securities, which have reshaped the way we view fundraising, investment, and the tokenization of traditional assets. Building upon these ideas, tokenized shares with voting rights emerges as a groundbreaking concept. It refers to the digital representation of company shares on a blockchain, combined with the ability of token holders to participate in corporate governance by exercising voting rights.

This innovative approach not only facilitates share trading efficiency but also empowers shareholders to influence key corporate decisions, such as electing board members or approving major business strategies. The interconnection between tokenized shares with voting rights and corporate governance is profound. Traditionally, corporate governance has been the domain of established shareholders, often large institutional investors. However, by tokenizing shares and incorporating voting rights, this concept democratizes the corporate decision-making process, opening the door for a broader spectrum of shareholders, including retail investors and small stakeholders, to have a say in how a company is run. This transformation in corporate governance can enhance transparency and accountability within organizations, aligning the interests of shareholders with those of the company's management.

Shareholders can more easily voice their opinions and influence key decisions, ultimately fostering a more inclusive and equitable corporate governance structure. Moreover, tokenized shares with voting rights have the potential to revolutionize shareholder engagement, proxy voting, and the way corporations interact with their investors. It aligns with the evolving regulatory landscape and may lead to regulatory adaptations that recognize the validity of digital tokens in corporate governance. In summary, tokenized shares with voting rights represents a powerful synergy between blockchain technology, financial innovation, and corporate governance. It ushers in a new era where shareholders of all sizes have the opportunity to actively participate in shaping the future of the companies they invest in, fostering a more transparent and equitable corporate landscape.

Our journey into the evolving landscape of technology and corporate governance begins with Yermack's (2017) seminal paper, which explores the potential implications of blockchain technology for corporate governance. Further insights are provided by various authors, highlighting the role of legal frameworks in technology's impact on corporate, competition, and tax law.

Other authors delve into the concept of 'corporate capture' in blockchain governance, examine cryptocurrency token sales and ICOs as a means of financing corporate growth, investigate the transition from 'corporate' to 'platform' governance in decentralized platforms, and assess the applications of blockchain technology in enhancing shareholder engagement. Additionally, the text delves into the role of institutional investors in corporate governance, addressing agency problems faced by institutional investors and their influence on corporate governance.

The adoption of tokenization in corporate governance signifies a transformative shift, with a primary focus on understanding how governance dynamics are evolving in the digital age. This innovative process involves the digitization of ownership records for various assets through blockchain technology, creating digital ownership certificates and enhancing ownership versatility. It is projected that by 2030, the tokenization of real-world assets, especially in real estate and financial sectors, will reach a staggering value of sixteen trillion dollars, promising lower costs, faster settlements, and increased accessibility to financial assets.

However, while tokenization brings notable advantages, it also introduces challenges, particularly on the regulatory and security fronts. The implementation of tokenization for corporate shares requires careful consideration of the legal framework, the selection of secure blockchain technologies, educating shareholders, ensuring transparency, and the implementation of robust cybersecurity measures. While tokenization provides opportunities for improved corporate governance, it necessitates regulatory adaptations to clarify token rights and the creation of precise budgets for adoption, a process that can be complex and depends on individual circumstances and requirements. Additionally, institutional investors play a crucial role in shaping corporate governance practices within this transformative landscape.

The adoption of tokenization is driven by various factors, including the regulatory environment, transparency enhancement, administrative efficiency, global reach, innovation, competitive advantage, smart contracts, error reduction, shareholder demands, cost-benefit analysis, educational initiatives, and social responsibility considerations. Companies must consider a combination of these drivers in their adoption of decisions.

The research paper by Dasgupta et al. (2021) holds significant importance as it delves into the pivotal role of institutional investors in corporate governance. The paper likely explores how institutional investors, such as pension funds and mutual funds, wield substantial influence over corporate decision-making, aiming to align their interests with those of individual shareholders and promote long-term shareholder welfare. It addresses agency problems these investors face and discusses their engagement in shareholder activism to drive governance improvements. Moreover, the paper examines the regulatory framework governing institutional investors and considers their impact on financial markets. Understanding the dynamics between institutional investors and corporate governance is crucial for enhancing governance standards, regulatory oversight, and overall financial market stability.

The tokenization of shares in corporate governance, as advocated by Bebchuk and Tallarita (2020), Hart and Zingales (2017), and Broccardo et al. (2022), offers innovative solutions to key challenges in the field. Tokenization allows for enhanced stakeholder engagement, aligns shareholder interests with token holders, improves governance transparency, and addresses regulatory compliance. By incorporating tokenization, companies can foster more direct stakeholder engagement, encourage long-term shareholder welfare, enhance governance transparency through blockchain technology, and ensure compliance with evolving legal and regulatory frameworks. This integration of tokenization provides a dynamic approach to bridging the gap between shareholder interests, stakeholder engagement, and regulatory compliance, ultimately promoting more effective and equitable corporate governance practices.

Engaging with institutional investors in the adoption of tokenization is a strategic process (Heineman et al., 2011). Engaging institutional investors in the adoption of tokenization within corporate governance requires transparent communication, alignment with investor priorities, and collaborative initiatives. Companies should identify key stakeholders among institutional investors and share their tokenization plans and benefits openly. Providing educational materials and addressing questions while actively listening to feedback is crucial. Aligning tokenization strategies with investors' interests, such as transparency, long-term value, or environmental, social, and corporate governance (ESG) considerations, is essential. Workshops, pilot programs, and shared risk assessments can strengthen the relationship. Advocating for investor-friendly regulations and maintaining a feedback loop ensures continuous improvement, fostering a transparent and inclusive corporate governance framework through tokenization.

Board members play a critical role in the adoption of tokenization technology for corporate governance (Farnoush et al., 2022). To fulfil this role effectively, they must undergo an educational journey to understand the technology and its implications. Aligning the adoption with the company's strategic goals and shareholders' interests is pivotal. Establishing a specialized tokenization committee within the board ensures efficient governance throughout the adoption process, and engagement with shareholders is crucial for informed decision-making. Board members also need to closely collaborate with legal experts to ensure legal and regulatory compliance, select technology partners, and oversee cybersecurity measures and transparent record-keeping on the blockchain (Hu & Bai, 2023). Setting up systems for monitoring regulatory changes, security measures and shareholder engagement is essential. Governance practices should adapt to incorporate smart contracts for corporate actions, and cybersecurity preparedness is a non-negotiable element.

The provided research agenda outlines a comprehensive exploration of the impact of tokenization on corporate governance, addressing various facets and challenges associated with this transformative technology (Heines et al., 2021). It delves into essential topics, including understanding tokenization, its benefits and challenges, regulatory and legal aspects, security and risk management, shareholder engagement, globalization, institutional investors, governance adaptation, environmental and ethical considerations, future trends, practical implementations, strategic considerations for companies, institutional investor engagement, the role of board members, and the need for continuous improvement in this evolving landscape (Lesche et al., 2022).

This research agenda is driven by the real-world adoption of tokenization technologies across diverse industries, the dynamic regulatory environment, and the intricate interplay between technology and governance. Tokenization's potential benefits in terms of transparency, efficiency, and accessibility are balanced with challenges such as regulatory complexity and cybersecurity vulnerabilities. As a structured framework, the research agenda provides guidance to comprehensively address the multifaceted issues arising from the integration of tokenization into corporate governance, thus promoting a deeper understanding of this transformative technology's impact on the corporate landscape.

Tokenization's integration into corporate governance signifies a transformative paradigm shift, offering enhanced transparency, operational efficiency, and accessibility. Active board member engagement, collaboration, and regulatory compliance are essential for successful implementation. It holds the promise of improved governance, adaptability to dynamic industries, enhanced accessibility, and superior risk management. Notably, institutional investors are instrumental in providing financial support, credibility, market insights, and risk management expertise, propelling tokenization adoption. Research exploring tokenization's impact on corporate governance, particularly in reshaping ownership and transparency, adds to our understanding of how digital innovations redefine governance and ownership structures. Future studies should focus on institutional investors' evolving roles, their influence on governance, and regulatory responses to drive innovation in corporate governance.

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FOREIGN OWNERSHIP AS A CORPORATE GOVERNANCE MECHANISM AFFECTING THE FIRM VALUE

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Abstract

Especially for emerging markets, the role of foreign shareholdings is a highly debated topic. In general, there are two clashing views about foreign ownership of firms in emerging markets. The first view implies that when foreign owners are focused on high gains in the short term, they may not care about corporate governance policy since they keep aloof from monitoring costs. On the contrary, if foreign shareholders have a long-term investment motive, they provide a good monitoring mechanism on the corporate governance policy of the firm as they are independent of the controlling ownership (largest blockholder) and local governments, and international diversification benefit is assumed to provide more stable cash flows decreasing the agency costs.

Building on these two views, this study aims to examine the effect of foreign investors on firm value via increasing corporate governance's disciplining power against entrenchment by the dominant controlling owners. Numerous studies provide evidence about the possible impact of foreign ownership on firm value but channels through which foreign ownership affects corporate governance need to be explored more. These channels could be the increased level of board independence and foreign owners' impact on the firm's dividend and investment policies.

The first expected outcome of the study is that higher foreign ownership leads to the involvement of more unaffiliated outsiders in the form of foreign directors affecting the independence level of the board which will indicate more monitoring power by independent outsiders and good motives for corporate governance which in turn will increase firm's market value. Second, foreign ownership in a firm may motivate more dividend payments to shareholders and prevent the free cash flow problem (classical corporate governance dilemma) by eliminating over-investing and providing efficient allocation of resources in a company if lower growth opportunities exist. Thus, through increased dividends, foreign ownership may discipline the managers. Third, foreign investors are deemed to be involved more in innovation-oriented research and development investments and this may motivate managers to increase capital expenditures when a firm has greater growth opportunities. Through increased research and development investments, focusing on high growth and return opportunities, foreign ownership may have a disciplinary power on managers, reducing agency costs and increasing firm value.

This study examines the effect of foreign ownership on firm value by affecting corporate policies as a corporate governance monitoring mechanism and contributes to the literature on the role of foreign shareholdings which are especially important for emerging markets in three stands: increased level of board independence which serves to eliminate the conflicts of interest among different stakeholders within a company, a dividend policy disciplining the management of free cash flows and an investment policy focusing on more research and development (innovation), enabling high growth opportunities and profitable investments.

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SESSION 4: ESG AND SDG ISSUES

THE EFFECTS OF CORPORATE GOVERNANCE ON ENVIRONMENTAL, SOCIAL AND GOVERNANCE PERFORMANCE: EVIDENCE FROM THE U.S. BANKING SECTOR

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Abstract

In recent years, corporate sustainability has become an important objective for company stakeholders and a topic of particular interest for corporate scientific research.

The trend towards companies' sensitivity to sustainability issues has grown considerably in recent years. Sustainability reporting is on the rise, with approximately 70 percent of monitored companies publishing sustainability reports in 2021 triple the percentage compared to 2016 (United Nations, 2023).

Overall, the trend towards better sustainability reporting is a positive development as it indicates a growing awareness of the need to prioritize sustainable practices across all sectors.

It is plausible to think that when a company focuses on sustainability its business becomes at least potentially more profitable, consequently increasing the overall value of the company.

However, there is no universally accepted definition of sustainability in the literature but there are many depending on the aspect being analyzed. It should be highlighted that the concept of sustainability is increasingly identified in the literature in terms of environmental, social and governance (ESG). In this sense, the concept of sustainability is divided into three fundamental dimensions to verify, measure, control and support the sustainability commitment of a company or organization.

The topic of this study falls within that line of research that seeks to understand whether corporate governance and in particular the composition and activity of a company's board of directors can influence its ESG performance.

Especially in the banking sector, ESG performance has still been little explored with reference to the role of the board of directors.

This study seeks to fill this gap in the literature by analyzing the relationship between bank board composition (the main independent variables are gender diversity, independence, size, activity, and ESG/CSR committee) and performance of the ESG dimensions.

Among the board characteristics examined in this study, board independence and gender diversity have become important issues in corporate governance, although the literature has mostly focused on non-financial corporations.

The statistic methodology is based on the application of panel regression models on a large sample of banks listed, composed of the banks that are part of the Dow Jones U.S. Banks Index, for the period 2012–2021.

The results of this statistical analysis can allow us to define best practices for the management of banks even in times of crisis and provide useful elements for reflection also to banking supervisory authorities and policymakers to evaluate correct incentive policies in general for sustainability and to ESG dimensions.

In fact, banking regulation and supervision regimes have positive effects in terms of the overall ESG of the banking system and can influence governance in different ways depending on the size of the bank, the restrictions on the activity and ownership of the bank, the power of official supervision and the deposit insurance structure.

Furthermore, the results of this study can help banks identify best practices to maximize ESG performance, financial performance, and, therefore, corporate value, as well as provide food for thought to different categories of stakeholders, including regulators and supervisors banking sector.

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GREENING VIA NEW PRODUCT AND SERVICE DESIGN WITH BCMS ISO 22301 AND UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

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Abstract

Salas et al. (2021) mentioned that "Circular economy (CE) describes a sustainable alternative approach to the current linear economy system" (p. 1). They also highlighted that "innovation is a crucial aspect for implementing CE business models" (Salas et al., 2021, p. 15). During the 9th Entrepreneurial Education Meeting of United Nations Educational, Scientific and Cultural Organization (UNESCO) in Bangkok, Hangzhou, China in October 2023, the key takeaways of the meeting were innovations in the entrepreneurial education system with disruptions in pedagogies, including partnership and financing entrepreneurial activities of students, and curriculum design with attention to policy-makers and educators to narrow down the global unemployment of young people. Hence, it is time to explore integrating Sustainable Development Goals (SDG)/ISO standards with the entrepreneurial spirit and circular economy concept in social entrepreneurship education in the higher education sector.

The aim of this study is to align with the goals of UNESCO on resilience art and the 2021 Policy Address (The Government of the Hong Kong, 2021)(please refer to paragraphs 155 and 158 below[1]) of the Hong Kong Government in talent development, nurturing educators, entrepreneurs, policy-makers and management in non-governmental organizations (NGOs) familiar in the use of design thinking, Business Continuity Management System (BCMS 22301) standards and SDGs with technology for new business creation and business sustainability. Ultimately, the gap between academic and vocational skill development will be narrowed down with a higher level of solution-seeking skills.

The key takeaways of this study are to explore the key elements of transformative business related to intellectual property (IP) rights from a literature search (2004–2021) on articles related to IP, licensing agreements and branding. Seven papers were found in the qualitative key words search using NVivo. After reviewing the papers, several factors appeared to relate to the topic which included outstanding products or services for sustainable business, creating a perceivable differentiated market, IP and unique features.

A case study of SDG Game 2023 with young engineers has been prepared to support the findings revealed from a literature search on factors such as outstanding products or services for sustainable business and creating perceivable differentiated market frequently cited with 237 and 102 references respectively. As a proactive, innovative and transformative corporation, it is time to re-visit the key elements for sustainable business with market uniqueness and branding for rebuilding a team of capable, branding and hybrid workforce.

RQ1: Based on the findings, it is time to educate young engineers with multi-disciplinary knowledge via SDGs with a low-carbon lifestyle for creating impacts on peers.

For future game facilitators on applying SDGs into the daily lives of participants with behavioural changes, well thought-through design in the game, engagement, dialogue, applied research with case study approach and experimental approach is needed for creating a green community.

RQ2: Exploring the application of BCMS ISO 22301 for SDG game projects for business resilience in RQ1.

On-going engagement with follow-up focus group discussion based on survey results received from SDG games is desirable for business/social development opportunities. Besides, the use of virtual

[1] "*In recent years, the Government has been sparing no effort in expanding the I&T talent pool. For example, the Global STEM Professorship Scheme proposed in my Policy Address last year is a huge success. Over 40 distinguished scholars and their research teams from eight economies recruited in the first tranche are gradually arriving Hong Kong. We will continue to implement the Scheme to attract more renowned I&T scholars and their research teams to Hong Kong such that our local universities will scale new heights in I&T research and development activities*" (The Government of the Hong Kong, 2021, para. 155).
"*Talents are the key to arts and cultural excellence. We will put more emphasis on nurturing talents in different artistic and creative fields such as arts administration, arts technology and script writing*" (The Government of the Hong Kong, 2021, para. 155).

space for SDG game with participants from overseas countries may be an option to expand the game to young engineering communities with soft skills development.

For future research areas, it is expected that the two main areas to be covered in relation to SDG/ISO standards to widen the horizon of not only professionals but also white and blue-collar workers in the areas of 1) social/business entrepreneurial education with qualification framework (QF) level for SDG 4.7 knowledge transfer, 2) practical instruction guidelines on protecting themselves in the workplace and open spaces for SDG 3, 3) small and medium enterprises (SME) development with SDGs applications and ISO standards for new product/service design, 4) narrow down the gap between professionals/blue-collar and white-collar workers, and 5) creation of awareness to policy-makers in governance and management on professional development of blue-collar workers with entrepreneurial education in the higher education sector.

Target audiences of applied research publications include funded and self-financed college/university teachers, academics, professionals/white and blue-collar workers from event management, housing estate management, property management, retail, cosmetics and entrepreneurial practitioners, including social enterprises.

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SESSION 5: GENERAL ISSUES OF CORPORATE GOVERNANCE

CAREER ADAPTABILITY AS A MEDIATING FACTOR FOR PERSONALITY TOWARDS ENTREPRENEURIAL INTENTION

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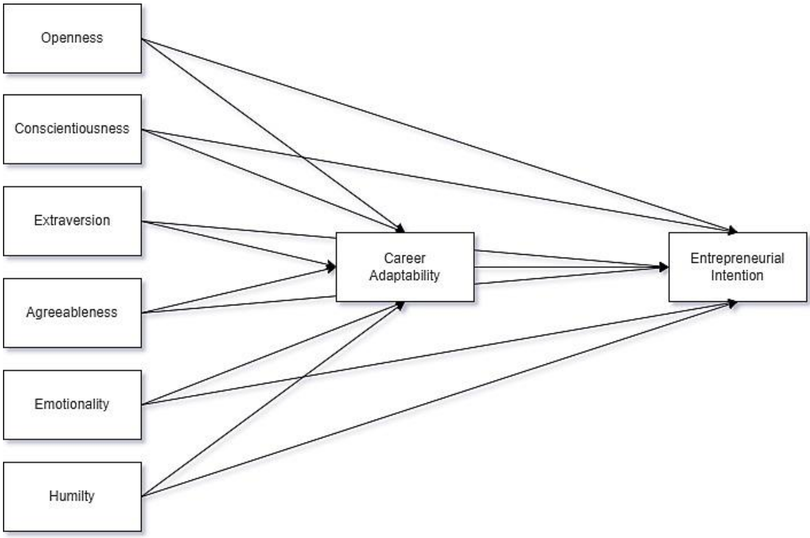
Abstract

The purpose of this study is to examine the direct effect of the HEXACO personality traits on entrepreneurial intention and career adaptability, the indirect effect of personality traits on entrepreneurial intention through career adaptability and the direct effect of career adaptability on entrepreneurial intention. The HEXACO model includes the five factors of the Big Five personality model, adding the "honesty/humility" factor (Rafi et al., 2013; de Vries & van Gelder, 2015). The model comprises the following traits: *honesty-humility, extraversion, emotionality, conscientiousness, agreeableness*, and *openness*.

A 55-item questionnaire was employed to measure the personality traits of HEXACO, career adaptability and entrepreneurial intention. The study sample includes more than half of the students of the business department ($n = 485$) of a public university based in Athens. With the use of the Jamovi program, we examined the direct effect of the HEXACO personality traits on entrepreneurial intention and career adaptability, the indirect effect of personality traits on entrepreneurial

intention through career adaptability and the direct effect of career adaptability on entrepreneurial intention. The following figure indicates the path model that is used to test the interactions among the variables.

Figure 1. Model diagram



The table below indicates the results of the path model of the multiple independent variables of HEXACO personality traits and one mediator (career adaptability) on entrepreneurial intention. The results exported from the Jamovi program are shown in Table 1.

Table 1. Indirect direct and total effects (Part 1)

Type	*Effect*	*Estimate*	*St. error*	*Lower*	*Upper*	*β*	*z*	*p*
Indirect	O ⇒ CA ⇒ EI	0.054	0.016	0.022	0.086	0.044	3.296	< 0.001
	C ⇒ CA ⇒ EI	0.156	0.034	0.090	0.222	0.112	4.623	< 0.001
	E ⇒ CA ⇒ EI	0.063	0.018	0.028	0.098	0.048	3.494	< 0.001
	A ⇒ CA ⇒ EI	-0.002	0.015	-0.030	0.027	-0.001	-0.106	0.916
	EMO ⇒ CA ⇒ EI	0.011	0.011	-0.010	0.032	0.010	1.048	0.295
	HUM ⇒ CA ⇒ EI	0.045	0.016	0.014	0.075	0.034	2.888	0.004
Component	O ⇒ CA	0.095	0.022	0.052	0.138	0.170	4.327	< 0.001
	CA ⇒ EI	0.568	0.112	0.349	0.787	0.260	5.086	< 0.001
	C ⇒ CA	0.274	0.025	0.226	0.323	0.431	11.095	< 0.001
	E ⇒ CA	0.111	0.023	0.066	0.156	0.186	4.807	< 0.001
	A ⇒ CA	-0.003	0.026	-0.053	0.048	-0.004	-0.106	0.916
	EMO ⇒ CA	0.020	0.019	-0.016	0.056	0.040	1.070	0.284
	HUM ⇒ CA	0.079	0.023	0.035	0.123	0.132	3.509	< 0.001

Table 1. Indirect direct and total effects (Part 2)

Type	*Effect*	*Estimate*	*St. error*	*Lower*	*Upper*	*β*	*z*	*p*
Direct	O ⇒ EI	0.102	0.055	-0.006	0.210	0.083	1.845	0.065
	C ⇒ EI	0.088	0.068	-0.045	0.222	0.063	1.297	0.195
	E ⇒ EI	0.122	0.058	0.008	0.236	0.094	2.101	0.036
	A ⇒ EI	0.034	0.063	-0.090	0.158	0.023	0.539	0.590
	EMO ⇒ EI	-0.126	0.046	-0.215	-0.037	-0.118	-2.771	0.006
	HUM ⇒ EI	-0.113	0.056	-0.223	-0.004	-0.087	-2.023	0.043
Total	O ⇒ EI	0.156	0.056	0.047	0.265	0.127	2.803	0.005
	C ⇒ EI	0.244	0.063	0.122	0.367	0.175	3.908	< 0.001
	E ⇒ EI	0.185	0.058	0.071	0.299	0.142	3.173	0.002
	A ⇒ EI	0.032	0.065	-0.095	0.159	0.022	0.501	0.617
	EMO ⇒ EI	-0.115	0.047	-0.206	-0.023	-0.107	-2.460	0.014
	HUM ⇒ EI	-0.069	0.057	-0.180	0.043	-0.053	-1.205	0.228

Note: 95% confidence interval (a).

The results indicate that extraversion, conscientiousness and openness have a direct and positive impact on entrepreneurial intention, while emotionality has a negative one. Also, career adaptability relates positively to entrepreneurial intention. Openness, conscientiousness, extraversion and humility affect positively career adaptability. Finally, it is indicated that openness, conscientiousness, extraversion, and humility have an indirect and positive relationship with entrepreneurial intention through career adaptability.

The development of economies worldwide is significantly influenced by entrepreneurship. In order to enhance the creation of new enterprises, stakeholders such as governments, policymakers, universities, and researchers, increasingly turned their attention to personality traits and psychological resources and the role these play, at the initial stage of the new venture creation (Zhao et al., 2010; Littunen, 2000; Howard, 2020; Tsaknis et al., 2023). In this study, an analysis was used of the variables and their interrelationships to discern the individuals' characteristics score higher on entrepreneurial intention. Many of the relevant studies examine these characteristics using the Big Five personality traits framework combined with other contextual and demographic variables (Patitsa et al., 2021). This research takes a different approach diverging from the Big Five model and the theory of planned behavior and examines the effect of the HEXACO personality trait model, on entrepreneurial intention, directly and indirectly with the mediation career adaptability. The paucity of studies that address the impact of the HEXACO personality factors on the intention to start a new company in leading entrepreneurship journals, based on our findings appears to be unjustified (Brännback & Carsrud, 2018). Few researchers examined the indirect relationship of personality traits with entrepreneurial intentions through career adaptability, and they did not take into consideration all the personality factors included in the HEXACO model.

This study has also several limitations. It does not include variables that could potentially have an impact on the findings, such as some demographic factors (age, sex, prior studies, etc.). Another limitation involves the sample composition not including students from diverse disciplines, drawn only from the field of business administration. Applied in a different setting the study could produce different findings if the sample had involved engineering or fine arts students. The cultural element is another reason for caution when interpreting our results since the sample is comprised of students of the same ethnic origin. These findings may need to be validated in different contexts in future studies, avoiding the pitfalls described in this paragraph (McKenna et al., 2016; Tsaknis et al., 2022; Zacher, 2014).

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HOW DOES A TELEWORKING ENVIRONMENT AFFECT THE RELATIONSHIP BETWEEN PERSONALITY, WELL-BEING, AND GRATITUDE?

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Abstract

Teleworking or remote work refers to working remotely, from a distance, using information technology to communicate and collaborate with colleagues, superiors, or clients. In such a case, the home or a place other than the office becomes the main workplace, and teleworkers can even work outside certain working hours (Chow et al., 2022). Teleworking increased during the COVID-19 pandemic and continues to be a major working practice at a higher rate than before the pandemic. Over the past three years, employees have engaged in various forms, types, and extents of telework (Zaidi & Ali, 2020). Experiences with telework have had both positive and negative effects on employees' well-being (Pathak et al., 2021; Antunes et al., 2022). Personality traits also appear to play a significant role in employee engagement in a telework environment (Clark et al., 2012). In addition, another important factor, gratitude, is considered to be a crucial predictor of positive subjective

well-being (SWB) in the work context (Datu et al., 2022; Aghababaei & Farahani, 2011; Cortini et al., 2019; Anderson et al., 2015; Badri et al., 2022; Ziskis, 2010). To this end, the present study examined the relationship between Big Five personality traits and teleworkers' well-being as well as their direct and indirect effects on gratitude.

Following the identification of the research's objective and assessment of its complexity, an online quantitative survey research was undertaken during the second wave of COVID-19 (February 2021–April 2021). A 58-item questionnaire with a 5-point Likert scale was utilized, to examine the relationships between the variables. A total of 230 teleworkers took part in this research. A path analysis was conducted to test the relationships among variables. The path model that tests the interactions between the variables is shown in the following figure (Tsaknis et al., 2022).

Figure 1. Model diagram

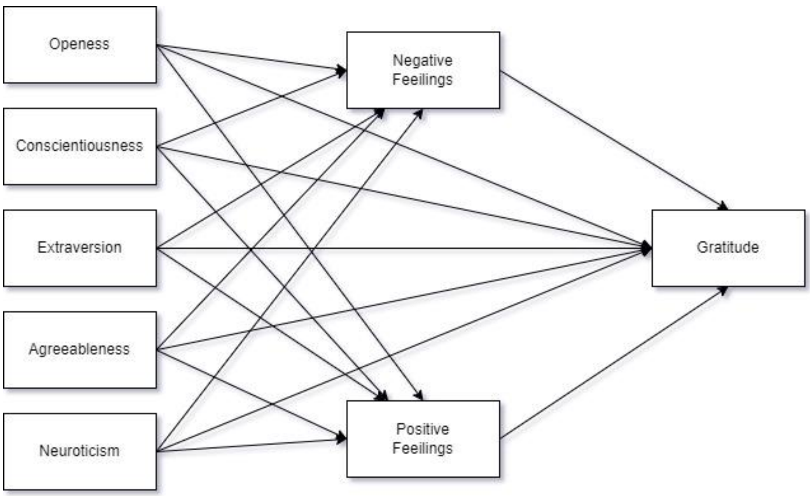

Table 1 indicates the direct and indirect effects of the independent variables (Big Five personality traits, positive feelings, negative feelings) on the dependent variable gratitude.

Table 1. Effects of the path model

Effect	***Estimate***	***St. error***	***Lower***	***Upper***	***β***	***z***	***p***
Openness ⇒ Negative feelings ⇒ Gratitude	0.002	0.004	-0.006	0.010	0.002	0.470	0.638
Openness ⇒ Positive feelings ⇒ Gratitude	0.002	0.004	-0.006	0.009	0.002	0.427	0.669
Conscientiousness ⇒ Negative feelings ⇒ Gratitude	0.008	0.009	-0.010	0.025	0.008	0.883	0.377
Conscientiousness ⇒ Positive feelings ⇒ Gratitude	0.001	0.003	-0.005	0.007	0.001	0.356	0.722
Extraversion ⇒ Negative feelings ⇒ Gratitude	-0.002	0.004	-0.010	0.006	-0.003	-0.542	0.588
Extraversion ⇒ Positive feelings ⇒ Gratitude	0.006	0.013	-0.019	0.031	0.007	0.470	0.638
Agreeableness ⇒ Negative feelings ⇒ Gratitude	-6.37e−5	0.004	-0.007	0.007	-6.51e−5	-0.017	0.987
Agreeableness ⇒ Positive feelings ⇒ Gratitude	0.006	0.012	-0.018	0.029	0.006	0.469	0.639
Neuroticism ⇒ Negative feelings ⇒ Gratitude	-0.019	0.019	-0.057	0.019	-0.025	-0.971	0.332
Neuroticism ⇒ Positive feelings ⇒ Gratitude	-0.006	0.013	-0.032	0.020	-0.008	-0.472	0.637
Openness ⇒ Negative feelings	-0.042	0.079	-0.196	0.112	-0.033	-0.535	0.592
Negative feelings ⇒ Gratitude	-0.044	0.045	-0.133	0.044	-0.064	-0.982	0.326
Openness ⇒ Positive feelings	0.066	0.067	-0.066	0.198	0.059	0.980	0.327
Positive feelings ⇒ Gratitude	0.025	0.053	-0.079	0.129	0.032	0.474	0.635
Conscientiousness ⇒ Negative feelings	-0.177	0.088	-0.349	-0.005	-0.125	-2.022	0.043
Conscientiousness ⇒ Positive feelings	0.040	0.075	-0.107	0.188	0.033	0.538	0.591
Extraversion ⇒ Negative feelings	0.050	0.077	-0.101	0.202	0.042	0.651	0.515
Extraversion ⇒ Positive feelings	0.240	0.066	0.110	0.370	0.230	3.630	< 0.001
Agreeableness ⇒ Negative feelings	0.001	0.085	-0.164	0.167	0.001	0.017	0.987
Agreeableness ⇒ Positive feelings	0.226	0.072	0.084	0.368	0.183	3.120	0.002
Neuroticism ⇒ Negative feelings	0.421	0.065	0.294	0.549	0.394	6.489	< 0.001
Neuroticism ⇒ Positive feelings	-0.247	0.056	-0.356	-0.138	-0.264	-4.435	< 0.001
Openness ⇒ Gratitude	-0.050	0.055	-0.159	0.059	-0.057	-0.903	0.367
Conscientiousness ⇒ Gratitude	0.293	0.062	0.172	0.414	0.298	4.740	< 0.001
Extraversion ⇒ Gratitude	0.118	0.054	0.012	0.225	0.143	2.173	0.030
Agreeableness ⇒ Gratitude	0.114	0.060	-0.002	0.231	0.117	1.920	0.055
Neuroticism ⇒ Gratitude	0.044	0.046	-0.046	0.133	0.059	0.953	0.341

Note: 95% confidence interval (a).
Confidence intervals computed with method: Standard (Delta method). Betas are completely standardized effect sizes.

The results indicate that there is a negative and statistically significant impact between conscientiousness and negative feelings and between neuroticism and positive feelings. On the other hand, we have a positive and statistically significant impact between extraversion and positive feelings, between agreeableness and positive feelings, and between neuroticism and negative feelings. Furthermore, there is a positive and statistically significant relationship between conscientiousness and gratitude and between extraversion and gratitude.

Recent studies argue that in the world of work, it is still questionable whether teleworking has clearly more advantages than disadvantages for employers and employees, as it is not clear if it promotes workers' well-being (Charalampous et al., 2019). The results of the study indicate that different personality traits may well impact the employees' telework attitudes and can play an important role in establishing teleworking subjective well-being. As the sample was limited to 230 teleworkers, a larger study could benefit from the above findings (Patitsa et al., 2022; Patitsa et al., 2023). Additionally, as there are very limited studies about the way personality traits affect employees' well-being and gratitude in a remote work environment, it would be of great importance to further investigate the direct and indirect relationship between those variables.

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CYBER-ATTACKS AND EARNINGS MANAGEMENT IN THE PUBLIC SECTOR

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Abstract

Cyber-attacks have inflicted significant harm on corporations, resulting in the theft of military secrets, the erosion of over $100 billion in shareholder value, and the compromise of personal data for 150 million individuals, along with the shutdown of critical infrastructure. Academic research is recently growing to tackle the impact of cyber-attacks on companies. A stream of literature has focused on capital markets' reactions to information disclosure of cyber-attacked firms (Ettredge & Richardson, 2003; Hausken, 2007; Amir et al., 2018; Kamiya et al., 2021). Other existing studies have examined the impact of cyber-attacks on firms' performance (Ko & Dorantes, 2006; Ko et al., 2009) and earnings management (Xu et al., 2019; Jin et al., 2023; He et al., 2022), but all have predominantly looked at the United States and listed companies. Yet cyber-attacks remain a critically understudied threat to other countries with no evidence being provided on the impact of cyber threats on unlisted firms' performance and earnings management in the public sector. This research aims to fill these critical gaps in the literature and provide the first full look at the earnings quality effects of cyber-attacks across various affected unlisted state-owned companies, enabling

policymakers in the government and private sector to better understand and defend against cyber threats.

Earnings management is considered a common practice in the private sector, and numerous studies have been published to investigate this topic. More recently, earnings management has also been attracting the interest of scholars, conducting research in the public sector and other non-profit settings (Bisogno & Donatella, 2022). Several studies have explored earnings management practices within public sector contexts, encompassing national governments (von Hagen & Wolff, 2006), sub-national governments (Clémenceau & Soguel, 2017), local governments (Beck, 2018; Cohen et al., 2019; Cohen & Malkogianni, 2021; Ferreira et al., 2013; Stalebrink, 2007), healthcare and non-profit organizations (Anagnostopoulou & Stavropoulou, 2023; Nguyen & Soobaroyen, 2019), hybrid entities (Kido et al., 2012; Capalbo et al., 2021, 2023a, 2023b; Ruggiero et al., 2022; Serra Coelho, 2022), and comparisons between private and state-owned enterprises (Capalbo et al., 2014; Ding et al., 2007; Wang & Yung, 2011). These studies consistently reveal that earnings management practices are prevalent in public sector entities and non-profit organizations.

How do cyber-attacks affect the earnings management practices of unlisted firms in the public sector? Do managers in firms affected by cyber-attacks engage in earnings management activities to mitigate the negative impact of the attacks on their financial performance? How do the type of cyber-attack, disclosure delay, and external monitoring influence earnings management activities in the affected firms? How do earnings management activities impact the future performance of firms that have experienced cyber-attacks? This research aims to investigate the impact of cyber-attacks on earnings management practices of Italian unlisted firms in the public sector. Specifically, the study will focus on how cyber-attacks influence the decision-making process of managers in affected firms, leading to potential manipulation of earnings through earnings management. The research will build upon the existing literature on earnings management in the context of data security breaches and extend it to a public sector dimension.

On May 11, 2022, a cyber-attack disrupted several Italian institutional websites, including the Italian Senate, the Ministry of Defence, and the National Institute of Health. This marked the onset of a multi-day cyber onslaught affecting various Italian and international websites. Italian institutions predominantly rely on aging systems from common providers, heightening the systemic implications of such attacks. The concentration of risks within commonly used services presents the potential for sector-wide impacts, with high losses that could become macro-critical. Consequently, the context of Italian public sector entities provides the ideal setting on which to test the hypotheses of this study.

The research will employ Benford's (1938) law-based approach to spot earnings management activities, using a propensity score matched sample to compare the levels of earnings management between firms affected by cyber-attacks and their non-affected counterparts. The sample will consist of Italian unlisted firms in the public sector that have experienced cyber-attacks within a specified time frame. The study will also consider the role of corporate governance in mitigating earnings management practices in the context of cyber-attacks. The findings of this research will contribute to the existing literature on earnings management and data security breaches by providing new insights into the relationship between cyber-attacks and earnings management practices in the Italian public sector. Additionally, the study will offer valuable information for policymakers, regulators, and managers to develop effective strategies for mitigating the negative consequences of cyber-attacks on firms' financial performance and ensuring the integrity of financial reporting.

In conclusion, this research aims to fill a gap in the literature by examining the impact of cyber-attacks on earnings management practices in Italian unlisted public sector entities. The study will provide valuable insights into the decision-making process of managers in affected firms and the potential consequences of their actions on the firms' financial performance and future prospects. This, in turn, will benefit both public sector transparency and efficiency, a major concern for the society at large.

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AN EXPLORATION OF SOFT SYSTEMS METHODOLOGY FOR ENHANCED CONTAINER TERMINAL PRODUCTIVITY

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Abstract

A study by Ha et al. (2019) investigating port performance asserted that research on the logistics of container terminal operations is necessary for improved port competitiveness. Botes and Buck (2018) and Toukan and Chan (2018) state that the complexity of seaports is compounded by the involvement of various stakeholders within the transportation value chain. Dalkin et al. (2018) proposed soft systems methodology (SSM) as an approach with the capabilities of making a complex situation unambiguous, with improved transparency, precision, reliability and legitimacy of theory. Checkland and Poulter (2020) further stated that SSM is capable of addressing a variety of difficult and messy circumstances. The ranking of South African ports according to the World Bank (2022) is low ranging between 312 and 365 being the lowest scores on this measure. Due to the latest advances impacting the shipping liner market, it is critical for productivity advances, enhanced efficiencies and operational performance to be achieved at container terminals. Port efficiency is an enabler of trade competitiveness and provides the capacity for ports to contend in difficult and changing market structures (United Nations Conference on Trade And Development [UNCTAD], 2017). The paper investigated how productivity can be enhanced in a container terminal through a systems

approach, using SSM. A qualitative case study research methodology using semi-structured interviews and a focus group interview in the form of SSM workshop was conducted. Senior operations managers from a variety of port stakeholders involved with marine, terminal and hinterland operations were targeted. The qualitative analysis of this study followed a deductive content analysis approach and SSM framework. The SSM approach facilitated the development of rich pictures, root definitions and conceptual models for container terminal productivity. The SSM facilitated a process of constructing a framework for improved terminal operations by identifying system structure, transformation process, main players and customers, including their interactions within the system, using a CATWOE (customer, actor, transformation, worldview, owner, and environment) analysis. The conceptual model enabled the identification of required activities needed to improve marine, terminal and hinterland activities within the port and terminal-owned system. The original contribution of this research is in planting the seeds of a systems approach using SSM for the enhancement of the performance of container terminal operations. The study contributes to new knowledge by exploring SSM considering all three dimensions that impact port efficiencies. The study has made a contribution to the field of systems thinking through the development of the conceptual model for enhanced terminal operations within the port system. A holistic conceptual model for container terminal productivity was produced which covers all dimensions including marine, terminal and hinterland perspectives. This investigation has contributed to the field of port management through the provision of enhancement strategies for improved performance of container terminals. The research also attempted to close a gap by developing knowledge and contributing to the theory of SSM and container terminal productivity.

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NON-ECONOMIC VARIABLES RELATED TO ECONOMIC GROWTH

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Abstract

Economic growth is a common macroeconomic objective for countries all over the world, but not only economic variables are significant determinants for its sustainability; there might be other crucial non-economic variables significantly related to it as well, such as *Absence of Corruption*, *Fragility of Human Rights and Rule of Law*, *Human Development*, and *Peace*. Therefore, this research, through a quantitative scientific approach, aimed to examine the relationship between the respective non-economic variables and economic growth. The sample of the study was quite representative since it covered 151 countries around the world. Data involved in this research were secondary and cross-sectional, collected from credible international institutions such as the World Bank, United Nations Development Programme (UNDP), Transparency International, Vision of Humanity[1] and the Fund for Peace[2]. The outcome of this research article, which used the median regression model as the cardinal tool, provided reliable information on the significant relationship between non-economic variables and economic growth.

[1] https://www.visionofhumanity.org/
[2] https://fragilestatesindex.org/

While economic growth is already an obvious macroeconomic aggregate from the measuring point of view, the determining factors of its level are not easy to state or investigate. In other words, it might be said that not only economic variables are related to economic growth, but non-economic variables as well. Concerning this, as the title suggests, the objective of this research is to investigate the non-economic variables that might be significantly related to economic growth, i.e., to find out the relationship between non-economic variables and economic growth. One should clarify that since this study uses cross-sectional data (in this instance for 151 countries for the year 2018), it does not draw on the causality of the non-economic variables on economic growth (i.e., there are no panel data used to measure the impact of non-economic variables on economic growth); instead, the study tries to find out the relationship between such variables. However, the research still provides credible results on the relationship between non-economic variables and economic growth, which is what it aimed to achieve based on the respective research question mentioned below.

The study considers the gross domestic product (GDP) per capita as a measure of economic growth level (i.e., *economic growth* is a dependent variable), while the independent non-economic variables are considered the following four: *Human Development* (Human Development Index), *Absence of Corruption* (Corruption Perception Index, CPI), *Peace* (Global Peace Index), *Fragility of Human Rights and Rule of Law*. Based on the above-mentioned variables involved in the study, the research question of this article is as follows:

RQ: What is the relationship between non-economic variables and economic growth?

Overall, this study addressed a crucial problem related to the main macroeconomic objective (i.e., economic growth), that of the non-economic variables related to economic growth, which is not an easy goal at all, but the research manages to report thoroughly reliable outcomes, being a solid contribution to this field of study. Moreover, one can argue that non-economic variables are becoming much more relevant in the nowadays times (i.e., which is known as a sustainable development era) as the conventional laissez-faire approach towards the economy is dismissed, among other reasons, because of the environmental issues and financial crises that countries are facing worldwide (Hajdari & Hadzimustafa, 2023).

Indeed, economic growth, as one of the most important macroeconomic objectives, is affected by many indicators and variables, including non-economic ones. As far as the corruption implications are concerned (not the absence of corruption but the existence of it), many scholars, using different types of scientific approaches, methods and models, have provided evidence of the negative relationship between corruption and economic growth (Gründler & Potrafke, 2019; Alfada, 2019; Cieślik & Goczek, 2018; Thach et al., 2017).

For worthwhile economic growth, another crucial non-economic variable to be considered by countries around the world, respectively policymakers of such countries is the rule of law. Even though the rule of law is not an easy concept to define, because of the different components that may be included in it, it can still be said that its role in economic growth is important (Luong et al., 2020; Ozpolat et al., 2016; Castiglione et al., 2015).

Two other indicators involved in this research are peace and human development, of course, both of them being non-economic variables. According to Bayar and Gavriletea (2018), there is a statistically significant positive impact of peace on economic growth and vice versa, a statistically negative impact on economic growth in the absence of peace. A similar conclusion about the importance of peace on economic growth was provided by Balami et al. (2016). Meanwhile, many other scholars gave a significant role in human development to economic growth (Elistia & Syahzuni, 2018; Taqi et al., 2021; Gulcemal, 2020).

The robust median regression model, being the cardinal part of this research, is run under the following formula:

$$\begin{gathered} GDP\ per\ capita = \beta_0 + \beta_1 * Absence\ of\ Corruption + \beta_2 * \\ Fragility\ of\ Human\ Rights\ and\ Rule\ of\ Law + \beta_3 * \\ Human\ Development + \beta_4 * Peace + \varepsilon \end{gathered} \tag{1}$$

Of course, β_1, β_2, β_3, and β_4 represent the regression coefficients (or slopes) for each independent variable of the study, which represent the change in the natural logarithm of GDP per capita associated with a one percent increase in the corresponding independent variable, while holding all other variables constant. The results of the ordinary least squares (OLS) and two tests, variance inflation factor (VIF), heteroskedasticity and normality test are presented.

Table 1. Analysis of variance (ANOVA)

Source	*SS*	*df*	*MS*
Model	277.175699	4	69.2939249
Residual	34.8212084	146	0.238501428
Total	311.996907	150	2.07997938

Number of obs.	151
F(4, 146)	290.54
Prob > F	0.0000
R-squared	0.8884
Adj R-squared	0.8853
Root mean squared error	0.48837

Note: SS = sum of square; df = degrees of freedom; MS = mean square.

Table 2. Ordinary least squares (OLS) regression results

lnGDPpercapita	*Coef.*	*Std. err.*	*t*	*P > /t/*	*[95% conf. interval]*	
lnHumanDevelopmentIndex	4.680177	0.2427417	19.28	0.000	4.200436	5.159918
lnAbsenceofCorrCPI	0.524873	0.1743262	3.01	0.003	0.1803443	0.8694018
lnGlobalPeaceIndex	0.4988493	0.2918529	1.71	0.090	-0.0779529	1.075651
lnFrHumanRightsandRuleofLa	-0.3368947	0.1039626	-3.24	0.001	-0.5423606	-0.1314287
_cons	8.504429	0.8163482	10.42	0.000	6.891042	10.11781

The VIF proves that there is some multicollinearity between independent variables, but the figures are not severe enough to be considered a significant issue. The VIF results show that multicollinearity between independent variables is not a serious issue, since all such variables have VIF outcomes less than 5 (even in this case, as shown in the VIF table, are less than 4). Generally speaking, VIF values less than 5 are not considered problematic, and vice versa, VIF values more than 5 would indicate a high degree of multicollinearity among the independent variables, which could lead to biased regression estimates and inflated standard errors. See the results below.

Table 3. Variance inflation factor (VIF)

Variable	*VIF*	*1/VIF*
lnAbsenceo~I	3.57	0.280435
lnFrHumanR~a	3.00	0.333517
lnGlobalPe~x	2.72	0.366996
lnHumanDev~x	2.05	0.487239
Mean VIF	2.84	

However, two other tests, heteroskedasticity and normality tests, prove that the OLS model of this research violates the assumptions, as presented in the following.

Table 4. Breusch-Pagan/Cook-Weisberg test for heteroskedasticity

Null hypothesis: Constant variance	
Variables: fitted values of *lnGDPpercapita*	
chi2(1)	3.65
Prob > chi2	0.0561

Note: Null hypothesis assumes constant variance (homoskedasticity). Since the Prob > chi2 is 0.05 (is a borderline), we could not reject the null hypothesis, which means the assumption of OLS is violated in the aspect of heteroskedasticity.

Table 5. Shapiro-Wilk W-test for normal data

Variable	*Obs.*	*W*	*V*	*z*	*Prob > z*
resid	151	0.98229	2.072	1.652	0.04924

Taking into consideration that the median regression model is a robust model that is less sensitive to heteroskedasticity issues, non-normal or skewed data, and robustness to outliers, we decided to go on with this model instead of OLS. Below we present its results, interpretations and discussion.

Table 6. Median regression model

Iteration	***Sum of weighted deviations***	***Results***
Iteration 1	Weighted least squares sum of weighted deviations	27.439214
Iteration 1	Sum of abs. weigted deviations	27.307568
Iteration 2	Sum of abs. weigted deviations	27.196138
Iteration 3	Sum of abs. weigted deviations	27.096193
Iteration 4	Sum of abs. weigted deviations	27.090836
Iteration 5	Sum of abs. weigted deviations	27.089956
Iteration 6	Sum of abs. weigted deviations	27.079546
Iteration 7	Sum of abs. weigted deviations	27.078248
Median regression		
Raw sum of deviations	90.61517 (about 8.5683012)	
Min sum of deviations	27.07825	
Number of obs.	151	
Pseudo R^2	0.7012	

Table 7. Median regression results

lnGDPpercapita	***Coef.***	***Std. err.***	***t***	***P >/t/***	***[95% conf. interval]***	
lnAbsenceofCorrCPI	0.7145398	0.2009608	3.56	0.001	0.3173718	1.111708
lnFrHumanRightsandRuleofLa	-0.4162734	0.1198466	-3.47	0.001	-0.6531317	-0.179415
lnHumanDevelopmentIndex	4.578946	0.2798293	16.36	0.000	4.025907	5.131986
lnGlobalPeaceIndex	0.770833	0.336444	2.29	0.023	0.1059034	1.435763
_cons	7.654418	0.941075	8.13	0.000	5.794528	9.514307

First of all, below is presented the formula with coefficients, based on the results found by the above regression model.

Formula with results

$$\begin{gathered} lnGDP\ per\ capita = 7.654418 + 0.7145398 * \\ lnAbsence\ of\ Corruption - 0.4162734 * \\ lnFragility\ of\ Human\ Rights\ and\ Rule\ of\ Law + 4.578946 * \\ lnHuman\ Development + 0.770833 * lnPeace + \varepsilon \end{gathered}$$

Overall, this research paper, using a quantitative scientific approach, studied the non-economic variables related to economic growth, i.e., the relationship between non-economic variables and economic growth. The study considered *GDP per capita* as a dependent variable (as a measure of economic growth), on the other hand, four other non-economic variables were considered independent ones, such as *Absence of Corruption*, *Fragility of Human Rights and Rule of Law*, *Human Development*, and *Peace*. The results of a robust median regression model, as a main tool of this study, show the significant relationship between the non-economic variables and economic growth since all four out of four non-economic variables involved in the research have resulted in a p-value less than 0.05. Specifically, the relationship between three non-economic variables, *Human Development* (as measured by the Human Development Index), the *Absence of Corruption* (as measured by the Corruption Perception Index), and *Peace* (as measured by the Global Peace Index) was found to be positively related and statistically significant to economic growth, at a 5% level of significance, while the relationship between the *Fragility of Human Rights and Rule of Law* (as a component and a measure of Fragility States Index) and economic growth was found to be negatively related and statistically significant (again at a 5% level of significance).

All in all, even though this research did not draw the causality between non-economic variables and economic growth (since it used cross-sectional data) still managed to report valuable findings on the relationship between the variables examined by using a virtuous representative sample of 151 countries (which, after all, was its aim).

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ORGANIZATIONAL CULTURE IN THE GREEK PUBLIC SECTOR: EMPIRICAL EVIDENCE AND STRATEGIC GOVERNANCE IMPLICATIONS

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Abstract

In the current climate of perpetual crises (natural, health, geopolitical, energy, financial), public administration is being asked to reinvent itself, first and foremost, to become capable of preventing, planning, and scheduling its operations in order to successfully carry out its multifaceted mission. The capacity to adjust to the unusual situations brought about by crises is the most essential instrument available to governments for effectively addressing these issues. The public sector needs to strengthen its efficiency, accountability, and transparency in order to adapt effectively and continue serving society or even improving the quality of its services. This can only be achieved through organizational culture changes (Boyne & Meier, 2009). Organizational culture is a critical element towards meeting this target, for both private and public entities. Modern public organizations operate in the same fast-paced, complex and volatile environment as private companies, while at the same time, they are generally more bureaucratic and less adaptable due to their size and resources. Due in large part to

the difficulty and complexity of evaluating organizational culture in public organizations, there are comparatively few empirical studies on the subject (Hood, 1991; Rukh & Qadeer, 2018). Furthermore, because there is no widely accepted organizational or professional culture in the public sector (which, according to Brunetto, 2001, is a facilitating factor for change) culture change is more difficult there. Greece has been experiencing a series of crises since 2008, including the financial crisis, the pandemic crisis, the energy crisis, etc., which has made the need for public sector reform even more pressing. This paper utilizes Cameron and Quinn's (2011) Organizational Culture Assessment Instrument (OCAI), which is based on their competing values framework. It presents the empirical results of a questionnaire study that was conducted among Greek Ministry of Foreign Affairs public servants. This study examines the organizational culture that was in place, and what was desired five years later. The analysis was done based on demographic characteristics such as age, gender, hierarchical position, work experience, etc. The Greek Ministry of Foreign Affairs was selected as a result of the extensive reforms currently underway, including the recent establishment of a new organization that changed economic diplomacy by bringing it up to the standards of developed economies in order to effectively promote the nation's and Greek businesses' economic interests, as well as legislation and implementation in the country of "executive state" (Papatolias, 2021). The results showed that the hierarchy culture currently rules the Ministry of Foreign Affairs, with the market culture following it by a narrow margin. In contrast, the employees wanted the clan culture to predominate in five years, with the market culture following it by a narrow margin. The results are of particular importance for policymakers towards meeting the critical political, economic and social challenges of today and tomorrow, such as sustainability, globalization, digitization, administrative development and geopolitical tensions (Lovell, 1994; Stewart & Kimber, 1996; Rukh & Qadeer, 2018).

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THE ROLE OF THE ULAMA RELIGIOUS AUTHORITY IN THE GOVERNANCE OF ISLAMIC BANKS

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Abstract

Morocco has, in recent years, decided to expand its financial system to foreign groups as well, starting in 2007 with the sale of shares in some banks and the entry of French capital. The intention of the Moroccan government has been to open up the country's market to Islamic finance, realizing the potential for the Moroccan economy of a segment of the population not yet banked and financially included.

It is, in fact, since 2015 — with Decree No. 1.15.02 of February 9, 2015 — that the Council of Participatory Finance Commission was created. The purpose of this commission is to ensure compliance with the precepts of Islam regarding the products proposed by banks by issuing opinions on the determinations issued by the Governor of the Central Bank of Morocco, the technical supervisory body, regarding products and insurance. The commission consists of nine permanent members who are specialists in *Shari'a* and *fiqh* and five additional members who act as experts and assist the permanent members in carrying out their duties.

The Kingdom of Morocco has sought to give a breakthrough to Islamic finance through the strengthening of the Ulama Council, which

is also in charge of scrutinizing the financial compliance of Islamic products and promoting Morocco's new Islamic finance sector (Chihab et al., 2019).

All Moroccan banking institutions, whether participatory or conventional, have compulsorily in-house a *Shari'a* board, i.e., an Islamic law compliance committee made up of 4 to 7 experts and which may be permanent or meet periodically depending on the statutes of the financial companies in which it is established. At the end of each financial year, financial institutions are required to send a report to the Ulama board.

The objective of our research will be precisely to study the role of the Ulama — present across the Islamic world (Kechichian, 1986) — in Morocco. This will be achieved through a systematic review of scholarly literature on the Ulama in the Moroccan financial system.

We will first investigate aspects of the history of the Ulama in the Moroccan legal, religious, and social system and then move on to the analysis of governance in the Moroccan financial system, from the beginning of the involvement of the Ulama Council in the financial sphere to the state of the art on the subject.

In particular, the aspects to be explored in depth in the study — with regard to the involvement of the Ulama in Morocco in the financial sphere — will be the type of control of the Ulama within the governance of the banks and how the Superior Council interfaces with the Moroccan Central Bank.

In conclusion, we will see what improvements could be made to make Ulama control more effective and conducive to a better social inclusion of Muslim consumers in both the regulatory and *Shari'a* board spheres.

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THE INTER-RELATIONSHIP AMONG CORPORATE GOVERNANCE, ARTIFICIAL INTELLIGENCE, AND INNOVATION

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Abstract

Although research in the field of corporate governance has been exhaustive recently many scholars have focused on the relationship between corporate governance attributes and artificial intelligence, corporate governance attributes and corporate innovation, there are few studies that combine corporate governance, artificial intelligence and corporate innovation. The main reason is due to the quantitative difficulties in measuring and distinguishing artificial intelligence activities and corporate innovation activities in enterprises. This study examines the relationships among corporate governance attributes, artificial intelligence, and corporate innovation. Adopting a new perspective, we have tried to help resolve the issue using a content analysis that integrates data from over 50 United States companies to analyze the relationship between board attributes, practice of artificial intelligence (AI) and firm innovation for the period 2018–2022. The results suggest that certain aspects of boards, such as board size, board diversity, and ownership concentration show the most significant correlations with firm AI development and innovation for overall industries, but the levels of associations also vary depending on different innovation measurements and samples considered in specific industries.

Moreover, the mediating effects of AI and innovation are examined, respectively. Lastly, we also discovered changes in the industry's attention to AI development before and after COVID-19 (2020). This research offers implications to corporate decision-makers as to how to proceed if the intent is to offer commercialized AI advancements and successful breakthrough innovations.

1. INTRODUCTION

While most previous research focused on the impact of internal governance on firm performance and value, in recent years, scholars have increasingly studied the influence of governance mechanisms on managerial innovation decisions (Tribo et al., 2007). Scholars believe that innovation efforts and outcomes depend on factors influenced by corporate governance, such as ownership structure or board composition. Ortega-Argils et al. (2005) found that highly concentrated ownership and reliance on debt financing hinder firms' investment in research and development (R&D) and do not yield favorable R&D outcomes. Asensio-López et al. (2018) argued that different internal corporate governance mechanisms may even be determining factors for firm innovation. In addition to ownership structure, the board structure also has a certain impact on firm innovation and its efficiency. Feng and Wen (2008) found a significant positive relationship between the proportion of independent directors on the board and innovation investment, the lower the proportion of independent directors, the relatively less innovation investment by the firm. It can be found that in recent years there has been a growing interest in the literature regarding the role played by boards and the characteristics of boards that are most conducive to promoting corporate innovation. However, the empirical evidence is not conclusive, and the results are sometimes contradictory. This is mainly because previous studies focused on a single variable related to the board, the variables were defined in different ways, or innovation was not considered from both input and output dimensions. Therefore, it is necessary to integrate all corporate governance elements that may have an impact on innovation activities.

Previous studies also proved that the effect of corporate governance on artificial intelligence existed, and there is an inherent connection mechanism between the two. However, the current research on this impact mechanism is still in the exploratory stage, few scholars have researched this aspect, and academics have not formed a unified view about the measurement of artificial intelligence. Our study will also analyze the empirical mechanism of corporate governance affecting artificial intelligence and test the impact in terms of specific governance elements.

Moreover, our findings also highlight the existence of the mediating effect of artificial intelligence (AI) or innovation. Most of the previous literature analyzed AI and innovation separately. By observing the variables measured by previous scholars, we found that the measurement indicators of AI and innovation are relatively fixed and have undetermined overlaps. Therefore, it can be inferred that due to the inefficiency in quantitatively distinguishing the two variables, scholars have not yet analyzed the two in a unified manner. Subsequently, we innovatively used the frequency of text words related to the two, extracted from financial reports as an indicator to measure the difference in the company's focus on AI development and innovation activities, which is also combined with traditional measurements (Coluccia et al., 2020), thereby confirming the effect and difference in the role of the two as mediating variables.

2. THEORETICAL BACKGROUND AND RESEARCH HYPOTHESES

Based on the above discussion, the present study proposes and tests the following hypotheses.

Existing literature largely suggests that an excessively large board size has a negative impact on corporate innovation. In contrast, a smaller board size leads to more corporate innovation, ultimately resulting in sustainable development (Chindasombatcharoen et al., 2022).

H1: There is a negative correlation between board size and AI practice or innovation efforts.

Some scholars argue that independent board members are essential for company development as they can provide resources for innovation activities (Mi Choi et al., 2012). Additionally, studies have found that higher board independence positively influences an increase in patent numbers for companies, stimulating their innovative spirit (Coelho, 2015).

H2: Board independence is positively related to corporate innovation decisions and AI-related activities.

Diverse board compositions in terms of gender, age, etc., have a positive impact on various forms of innovation. As the decision-making center of a company, diverse boards offer a broader range of viewpoints and perspectives, enhancing advisory capabilities and supporting exploratory innovation (Zhu et al., 2020).

H3: Board diversity is positively correlated with corporate innovation decisions and AI-related activities.

Ownership concentration and the identity of investors holding substantial ownership have an impact on innovation (Lee, 2005). The distribution of ownership in a company determines the control that decision-makers have over resource allocation and the incentives they must invest in innovation (Miozzo & Dewick, 2002; Aghion et al., 2009).

H4: Concentrated ownership is negatively related to artificial intelligence development and innovative activities.

Italian listed companies operating in the industries and the frequency of meetings held by the board assume a relevant role in supporting the investments in innovation (Martini et al., 2012). Board meeting frequency was put up to play a significant impact on eco-innovation as one significant demographic factor (Zaman et al., 2023).

H5: Board meeting frequency is positively related to artificial intelligence development and innovative progress.

Innovation performance could be promoted by corporate social responsibility via employee involvement and supplier collaboration (Zho et al., 2020).

H6: Corporate social responsibility has a positive correlation with AI and innovation within companies.

Chief executive officer (CEO) compensation has a significant regulating effect on the company's innovation capabilities, and the establishment of a compensation committee has a significant constraining effect on CEO compensation (Akram et al., 2022).

H7: Nomination committee and compensation committee are positively related to AI and innovation development within a company.

Artificial intelligence is a discipline centered around knowledge, encompassing the representation, acquisition, and utilization of knowledge. The application of AI in business model innovation has been increasing (Reim et al., 2020), reshaping the way companies innovate and the nature of innovations.

H8: AI plays a positive role in corporate governance and innovation efforts, so as for innovation.

3. RESEARCH METHODOLOGY

3.1. Sample description and data

To test our hypotheses, we analyze annual reports and other financial statements from 2018 to 2022 of the American companies listed on the Nasdaq Composite index of our sample. These companies are from 5 different industries according to the classification of NAICS. Companies with missing observations and outliers (based on 1st and 99th percentiles) were excluded. After matching and examining the data from the different sources the final sample consisted of 5400 observations corresponding to 60 companies listed on the Nasdaq Composite Index from 2018 to 2022.

Data for this study was collected from different databases. Firstly, accounting and financial data were manually extracted and collected from the EDGAR database. Secondly, data regarding board characteristics, ownership information and environmental, social, and corporate governance (ESG) from 2018 to 2022 were collected from the Eikon database, with our definition of concentrated ownership structure when the top-20 shareholders accounted for over 45% shares.

Lastly, annual reports were downloaded from the SEDAR online database, and analyzed by our Python code. This study examines the relation between corporate governance systems and artificial intelligence, innovation. More specifically, we analyze how corporate governance attributes, and particularly board characteristics, can affect AI, innovation efforts in the context of American listed companies.

Furthermore, due to the widespread adoption of AI in recent years, with frequent mentions in annual reports, we calculated a company's AI application index through text analysis. To be more specific, we construct an AI-related vocabulary and use Python to automatically extract and count words that share similar attributes, with common characteristics of word expressions considered. This process involves the extraction of about 20 commonly used AI-related terms based on shared attributes, forming the sub-dictionary for this study. Included terms like big data, intelligence, authentication, automation, integration, digitization, virtual, algorithm, cloud computing, blockchain, machine learning, integration, etc. Due to the broad and general nature of these terms, expressions not relevant to AI are manually excluded. Finally, the word frequencies of each phrase are summed to obtain the total word frequency, which is then considered to represent the AI application index for publicly listed companies. Moreover, the same procedures are also applied to innovation measurement as one main variable of the innovation index.

We utilize the content-analysis research method, using multiple regression analysis to examine our hypotheses. More specifically, we incorporate corporate governance variables, ESG score and ownership structure characteristics into different regression models, to analyze the overall impact on AI practice and innovation. Additionally, based on existing studies (He & Tian, 2013; Chen & Wang, 2014), we control for other determining factors of innovation, including firm size and leverage. Apart from that, we establish another model to examine the mediation effect of AI and innovation indexes separately, aiming to prove the mediating effect played by one specific variable to another.

3.2. Corporate social responsibility index: ESG score

Since the ESG score is easy to access, it is often used as a proxy for corporate sustainability performance (Drempetic et al., 2020). There are three categories of ESG indicators in the Thomson Reuters EIKON database: ESG score, ESG controversies and ESG combined score. We choose the ESG score as our measurement, which is based on publicly available data in ten thematic areas. To make the ESG score easier to conduct analysis, we code it into 1–12 according to the ESG score from D- to A+ in Eikon database.

3.3. Measures of explanatory variables

In Table 1, we present the description of board characteristics measures used in this study. In addition to control variables, Table 1 presents the description of AI and innovation measures.

Table 1. Measures of board characteristics and control variables

Variables	*Description*
BS	Board size: Number of directors comprising the board of directors
BD	Board diversity: Percentage of female directors on the board
BM	Board meeting: Number of meetings held by the board of directors in a calendar year
ESG	ESG scores: Comprehensive scores in environmental, social and governance to evaluate social responsibility
BI	Board independence: Percentage of independent directors on the board
OC	Ownership concentration: Measured by dichotomous variable
C1	Nomination committee: Present whether the company has a nomination committee
C2	Compensation committee: Present whether the company has a compensation committee
MAI	Mere AI: Number of words directly related to AI in annual report
R1	Ratio 1: Percentage of number of direct AI words to pages of annual report
AI	AI: Number of words broadly related to AI in annual report
R2	Ratio 2: Percentage of number of overall words to pages of annual report
INN	Innovation: Number of words related to innovation in annual report
R3	Ratio 3: Percentage of number of innovation words to pages of annual report
R&D	R&D investment: Number of investments put into research and development
TA	Total assets: Logarithm of the total assets
Lev	Leverage: Total debts/total assets
IND	Industry: Measured by five dichotomous variables for the 5 major industries under the classification of NAICS: *IND1* (manufacture), *IND2* (information), *IND3* (credit), *IND4* (insurance), *IND5* (professional service)

4. RESULTS ANALYSIS

4.1. Descriptive results

The results presented in Table 2 reveal that the average board size is around 6 directors and ranges from 2 to 12 directors. An in-depth search into board diversity indicates that, among five industries in our research, the mean proportion of women on board is 28%, with the lowest percentage of approximately 5% and the maximum could be found up to 58% of board directors are made up of women. These results also show that boards of United States companies meet at least 1 time during a year, up to 32 times a year, with an average of 10 meetings per year. The results reveal that the ESG scores vary from 2 to 12, in accordance with their D- to A+ level, with an average of 8 points. In terms of board independence, approximately 84% of directors are independent according to the requirements of New York Stock Exchange (NYSE). About 30% of the sample companies are considered to have a concentrated ownership structure, and 78% of firms set a Nomination committee, while almost 90% of firms have a compensation committee. In the detailed search into the industry by industry, we found the credit and insurance industries are the two which own the highest record of board size, with 13 and 14 directors on average respectively, and the credit industry also has the largest average ratio of women on board compared to other industries, around 33%.

4.2. Regression results

For our regression results, our first two models examined the effect of board characteristics and composition on their emphasis on artificial intelligence and innovative activities. The results show that ownership concentration has a negative impact on carrying out both artificial intelligence-related and innovation index, which shows that the more concentrated the ownership, the more shareholders tend to be conservative and less willing to carry out innovative activities. And our control variables of *IND2*, *IND3*, *IND4* also reveal negative influence. By contrast, *IND1*, *IND5* defined as manufacturing and professional services shows a strong positive impact on referring two dependent variables. Meanwhile, the result of board size shows that the more directors on a board, the less likely for a company to put up innovation, suggesting that boards with fewer directors will be more willing to take innovation-related activities, confirming our first research hypothesis (*H1*).

In a more detailed analysis of individual industries, we found that there are significant differences in the corporate governance variables that play a significant role in different industries, which also show satisfactory statistical results with significant statistical coefficients. Specifically, board independence has a significant positive impact on AI and innovation in manufacturing companies; however, for the information industry, the proportion of independent directors has a significant negative impact on AI and innovation. Looking at the credit industry, board meeting has a significant positive effect on AI, and ESG score has a significant positive effect on innovation. As for the insurance carriers, ESG scores and the establishment of two committees have a significant positive impact on innovation, while board size and board diversity have a significant negative effect on AI. Finally, in the service industry, R square is the highest (0.83). Interestingly, *committee 1* and ESG score have a significant negative impact on AI, though board meeting has a significant positive impact on AI. However, other significant variables were observed in this innovation index: board size and board diversity have a significant positive effect on innovation, which is exactly the opposite of the insurance industry.

R&D investment, as the observed innovative variable particularly for *IND1* and *IND5*, also shows satisfactory statistical significance. In the *IND1* manufacturing industry, board size, board independence and concentrated ownership structure have a significant negative effect on R&D investment, while board diversity, *committee 1*, and *committee 2* have a significant positive effect. *IND5* service industry also shows that the concentrated ownership structure is not conducive to the growth of R&D investment and has a negative effect.

Table 2. Regression results for AI and innovation (in total)

Variables	***AI***			***Innovation***		
	Standardized β	***t***	***Sig.***	***Standardized β***	***t***	***Sig.***
BS	-0.063	-0.819	0.414	-0.182	-1.826	0.069*
BD	-0.087	-1.520	0.130	0.002	0.020	0.984
BM	0.072	1.169	0.244	-0.027	-0.341	0.733
ESG	-0.154	-1.640	0.103	0.130	1.069	0.287
BI	0.047	0.688	0.492	0.107	1.206	0.229
OC	-0.277	-4.244	< 0.001***	-0.216	-2.566	0.011**
C1	-0.121	-2.118	0.035	0.111	1.507	0.133
C2	0.050	0.836	0.404	0.109	1.403	0.162
TA	0.150	1.558	0.121	0.180	1.440	0.151
Lev	0.014	0.216	0.830	0.147	1.746	0.082*
IND2	-0.420	-5.494	< 0.001***	-0.213	-2.151	0.033**
IND3	-0.301	-3.854	< 0.001***	-0.185	-1.834	0.068*
IND4	-0.480	-6.040	< 0.001***	-0.088	-0.854	0.394
IND5	0.351	6.185	< 0.001***	0.131	1.783	0.076*
	R square = 0.535			R square = 0.222		

*Note: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively.*

4.3. Mediating regression results

In our first mediation regression model, we test the mediation role of AI between corporate governance and innovation efforts. The results show that both the ESG score and *committee 1* have a more satisfactory positive impact on innovation under the mediation of AI practice. This intermediary role still exists in the specific industry analysis; therefore, we infer that the importance of AI has a significantly enhanced intermediary role in the practice of corporate governance and innovation. The second regression model of intermediary function tests the intermediary effect of innovation, and the results show a higher explanatory degree than the former, and the negative effects of board diversity, ESG score, ownership structure and *committee 1* are significantly enhanced. To conclude, the role of innovation efforts as an intermediary variable has also been confirmed.

5. CONCLUSION

Corporate governance elements such as board characteristics and shareholder structure play a significant and important role. The results of this study verify the important impact of board characteristics and ownership structure, especially the importance of individual indicators such as board structure on the company's investment in AI development, innovation, and R&D investment. For different industry characteristics, the stronger the individual board characteristics, the more attention it will pay to the development of AI, and the stronger its promotion effect on innovative activities. Vice versa, the more investment in innovation, the stronger the joint effect on AI development.

The research results help to enrich the literature in the field of corporate governance and demonstrate the importance of key features of corporate governance in promoting AI development and innovation in the digital era. This study determines a research structure method with text research as the core, supplemented by traditional variables, and the effectiveness is cross-checked through the successful extraction of word frequency from lots of annual reports and the results of different variables of the same indicator. Corporate governance has more significant variables in the manufacturing and information technology service industries. More attention is paid to the development of artificial intelligence and more money is invested in R&D and innovation activities.

This study shows that an overly concentrated ownership structure and a high number of directors have a negative impact on innovation progress and the development of AI in multiple industries. There are differences in the specific variables that affect AI and innovation activities in different industries. Therefore, companies are encouraged to adapt to local conditions and choose corporate governance improvement methods suitable for their own industry characteristics to adapt to the trend in the context of big data and artificial intelligence transformation and promote the company's progress in digitalization, intelligent upgradation, and innovative sustainable prosperity.

This study includes the main characteristics of the main corporate board and shareholder structures, but there are other characteristics that were not considered. Therefore, further research in the future will incorporate other corporate governance elements such as major shareholder types, board tenure, etc. into combined discussions. We will also conduct country comparisons, such as comparing companies in the United States and Canada, to explore the similarities and differences in the impact of corporate governance factors on AI and innovation between countries.

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CORPORATE GOVERNANCE: THE ARTIFICIAL INTELLIGENCE'S CHALLENGE — A RESEARCH PROJECT

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Abstract

Artificial intelligence (AI) is an epochal challenge. We illustrate a research project concerning a particular field of its application: its use and its impacts in the accounting and business administration field and, more specifically, on corporate governance (CG). The research we want to carry out consists of four phases. The first consists of the analysis of the literature, in order to better understand AI *per se*, to have a concise overview of its use in the business administration field and then to deepen the main results of the work on its application in CG. The second phase will try to systematize, from a theoretical point of view, the main possible uses of AI in the field of CG and, with reference to each of them, will try to outline its potential and the most significant risks. The third phase will try to test this systematization in the field, through a sample of Italian listed companies, so as to understand whether, where and how practice corresponds to theory. Finally, the phase of conclusions, after summarizing the results obtained, will attempt to offer some reflections on the possibilities of AI to improve CG: a topic of absolute importance, both for the development of research and for operators and regulators who, in various capacities and with different tasks, are involved in this area.

1. INTRODUCTION

Artificial intelligence (AI) is an epochal challenge, especially considering four aspects: the universality of its applications, the pervasiveness of its effects, the speed of its development and its ethical implications. The creation and diffusion of software capable of analysing, learning, solving problems and making decisions in a similar way to human intelligence, but with a processing speed and storage capacity of different (and even increasing) order of magnitude, certainly opens up enormous opportunities but also brings significant threats. We are convinced that AI is an unstoppable revolution, with contours and perspectives that are difficult to define but that must be guided so that it represents an asset for humanity.

Our work will focus on a particular area of application of AI: its use and its impacts in the accounting and business administration fields and, more specifically, on corporate governance (CG). The research will not only be theoretical, but we will also look for answers to the considerations offered by investigating the Italian context and, in particular, that of listed companies. This choice is based on the assumption that the latter, compared to unlisted companies (even of comparable size), normally boasts administration and control systems that are not only of greater depth, by virtue of regulatory provisions, but also more inclined to evolution, a context (we refer to that of listed companies) in which it should be more likely to find significant applications of AI in the context of CG.

The research we want to carry out consists of four phases. We will start with an analysis of the literature in order to better understand AI *per se*, have a concise overview of its use in the accounting and business administration field and then deepen the main results of the work on its application in CG. We will then try to systematize, from a purely theoretical point of view, the main possible uses of AI in the context of CG, and, with reference to each of them, we will try to outline its potential and the most significant risks. We will, therefore, try to test this systematization in the field through a sample of Italian listed companies, so as to understand whether, where and how practice corresponds to theory. Finally, in the conclusions, we will not only summarize the results obtained but will also try to offer some reflections on the possibilities of AI to improve CG, a topic of absolute importance, not only for the development of research related to CG but also for operators and regulators who, in various capacities and with different tasks, are involved.

2. LITERATURE REVIEW

The literature review will be divided into three sequential phases. The first will concern AI alone. The aim is to better understand its notion and origin, its types and, in general, its potential and its most significant risks. We will, therefore, develop a framework that we believe is important not only to continue with the next phases but also to deal with concepts that belong to different fields of knowledge (e.g., mathematics, computer science, law, psychology and philosophy).

The second phase will concern the application of AI in the accounting and business administration fields. The aim is to offer a brief summary of the main research areas and their development trends. The basic idea is to identify, through one (or more) literature databases, the main scientific works in the accounting and business administration area that, thanks to specific search terms (e.g., "artificial intelligence" both in the title and in the keywords), deal with AI. From the first analysis, given the high number of contributions obtained through this type of query and given the aims of the work, it will be necessary to drastically limit the set of works that will be seen in more detail, for example, by weighting the relevance of the journals in which they are published, considering the number of their citations (bearing in mind, however, that this is a topic of recent development) and then analysing the abstract.

The third phase will concern the application of AI in the context of CG. The objective is to understand the degree of interest aroused by the topic, to appreciate the level of depth of the existing literature and to summarize the main conclusions reached by it. The scientific papers to be analysed will be identified, again through one (or more) of the above databases, with a search key that requires — this is the basic idea — the simultaneous presence of "artificial intelligence" and "corporate governance" in the title, in the abstract or in the keywords of the contributions. From a first analysis, given their small number, it will not be necessary to drastically limit the set of works that will be seen in more detail. We also point out the intention not to limit the query to the accounting and business administration area — also to satisfy our curiosity towards different points of view.

3. THE QUESTIONS AND THE THEORETICAL MAP

The first question we will ask ourselves refers to the main possible uses of AI in the context of CG. A first simplistic answer could refer to any human intellectual activity; it is no coincidence that one of the main fears is being replaced by AI, perhaps losing control of it to the limit of being controlled by it, in turn. We have already talked about the universality of the application of AI, but there are still technical limits (even if they appear destined, given its speed of development, to rapid and progressive degradation), economic, legal, and ethical. Supported by the analysis of the literature — we refer particularly to the results of the third phase mentioned above — we will try to identify and systematize the main applications of AI in the context of CG. Let us already imagine some elective categories, for example, reporting, management control, internal control systems and risk management. More intriguing is the application of AI to the interpretation of the environmental context and to the definition and evaluation of strategies to even arrive at top-down decision-making activities.

The second question we will ask ourselves concerns the potential and risks of the main applications of AI in the context of CG, as identified and systematized by answering the previous question. In other words, we will try to identify the main theoretical pros and cons of each possible use. Let us imagine right now that the potentials and risks identified could have significant similarities and transversality and are capable of facilitating the achievement of an initial systematization of their key characteristics.

By systematizing the results obtained by answering the two questions above, we would like to attempt to build a sort of map of the most promising applications of AI in the field of CG (i.e., those that could most contribute to the state-of-the-art and, from a theoretical point of view, to its improvement).

4. COMPARISON WITH A SAMPLE OF ITALIAN LISTED COMPANIES

The map of the application of AI in the context of the CG referred to in the previous point is not intended to be a mere theoretical exercise. Our goal is to test it in the field, albeit limited to the Italian context (in the future, we would like to extend the verification, thanks to the collaboration with other colleagues, to other countries to obtain more general results and evaluate the differences). Therefore, we will seek a comparison with a sample of listed companies with the idea, as already mentioned, that these are Italian companies, where it should be more likely to find significant applications of AI in the context of CG.

A questionnaire will be defined and aimed at acquiring three types of information: the degree of interest and involvement of the company with respect to AI, the main applications of AI within the framework of its CG and the main pros and cons found. Before administering it to the entire sample, we will try to improve the questionnaire in question through comparison with a small set of subjects operating in the CG of Italian listed companies.

The responses received from the listed companies in the sample will be processed to understand whether, where and how AI is really applied within their CG. It will be interesting to verify the existence of any recurrences, both in their uses and in their pros and cons, also for the purpose of developing a sort of map of the real main applications of AI in the context of CG — an actual map to be compared with the theoretical one developed previously, so as to evaluate and try to justify the differences found.

Another interesting aspect will be to try to identify some of the factors that can affect the adoption of AI in the context of the CG, for example, the sector of activity, business performance, the characteristics of the management or of the corporate control structure and national or international screening.

5. CONCLUSION

The research we have outlined has, in a nutshell, three main objectives. The first is to identify — also on the basis of the analysis of the literature — a map of the most promising applications of AI in the field of CG. The second is to understand, limited to the Italian case, those that can actually be found in the context of listed companies. The third refers to an attempt to offer reflections on the possibilities of AI to improve CG.

Ambitious goals must be confronted with risks and limitations. We mention just a few here: the complexity; multidisciplinarity and speed of evolution of the AI topic, which leads us to ask for the collaboration of other researchers; the issues related to the definition of the sample of listed companies (in terms, for example, both of its size and of the way in which its elements are chosen) and the number and quality of responses to the questionnaire administered.

What are the effects of research? To contribute to a strand of study on CG, the one related to the applications of AI, recently and (we believe) promising development and to offer useful guidance to companies and their advisors to face a challenge, that of AI, which also concerns the field of CG. Such guidance could also be of interest to regulators in guiding the application of AI within CG.

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CONFERENCE FORUM DISCUSSION

AN EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN EXECUTIVE TEAM HETEROGENEITY AND CORPORATE INNOVATION

by Yunyao Tang, Epameinondas Katsikas, Dimitrios N. Koufopoulos, Michail Fygkioris, Chris Grose, Antonios Chantziaras, and Konstantinos A. Athanasiadis

Alexander Kostyuk: Dear Yunyao Tang and colleagues, welcome to our conference forum. You studied the listed companies in China and found that the executive team's age, gender, and educational background heterogeneity are positively correlated with corporate innovation. Did you intend to find if the industry the companies belong to influences the results of your study and can be linked to TMT heterogeneity and its correlation with corporate innovation in a different way? It seems that the industrial specifics could be a strong factor in influencing the results.

Konstantinos A. Athanasiadis: Hello all! Dear Alex, thank you for organising this!

Alexander Kostyuk: You are welcome to comment and discuss any presentation, Konstantinos. It is easy and comfortable.

Keith Harman: I am thoroughly enjoying this thread. Thanks again.

Alexander Kostyuk: It is very comfortable to process the comments and then publish comments in the conference proceedings after the conference. This is an unusual practice for the standard conferences where the comments of all participants are not fixed, and not published elsewhere.

Tanpat Kraiwanit: Please design an innovation process until implementation, that idea will be beneficial for the management.

Basma Bchennaty: Dear Yunyao Tang and colleagues, I appreciate your excellent presentation. The PowerPoint material was particularly well done.

Ilaria Galavotti: Dear authors, thank you for your presentation. I find the study interesting and I would like to share with you a few thoughts. The title refers to "executives" in general but then the focus is entirely on the TMT, so, maybe, you could consider rephrasing the title so that the reader immediately knows that you refer to the management. The other issue I was thinking about relates to the life stage: you talk of both start-ups and bull markets so I was wondering whether you refer to company life stages (start-ups versus mature firms) or economic periods (e.g., recessions versus booming periods).

Magdi El-Bannany: Dear colleagues, thanks for the interesting research topic — I would like to refer to some queries:

- How does the positive correlation between TMT heterogeneity (age, gender, and educational background) and corporate innovation manifest in practical terms for the companies studied?
- How can the findings influence the hiring and promotion strategies of listed companies, particularly in the context of TMT heterogeneity and its impact on innovation?

Konstantinos A. Athanasiadis: Dear colleagues, thank you for your thoughts and ideas we really appreciate them!

Dear Ilaria, thank you for your suggestions. We are referring to company life stages as companies in different stages require different strategies to compete effectively.

Dear Magdi, thank you for your comments. Indeed if firms understand in which stage they are, they could design hiring practices that address their TMT needs (level of heterogeneity).

EVALUATING THE APPLICABILITY OF SITUATIONAL LEADERSHIP THEORY IN SMALL AND MEDIUM-SIZED ENTERPRISES

by Jeremiah M. Kapotwe and Herman N. Bamata

Alexander Kostyuk: Dear Jeremiah and Herman, I am glad to see you at our conference forum. I find your paper very contributive. You mentioned that acquisition of relevant vocational, technical, and business skills is generally regarded as one of the critical factors for success in SMEs. What method of acquisition of relevant vocational, technical, and business skills do you consider the most critical? What do you think about the role of life learning and the role of the company as an employer to motivate the company leaders to be involved in life learning and updating the most critical skills?

Jeremiah M. Kapotwe: Dear Professor Alexander, thank you for your kind words and interest in our paper. Your insightful questions are highly appreciated. Regarding acquiring relevant technical and business skills in the context of SMEs, it is challenging to pinpoint a single method as the most critical because the effectiveness of a method can vary depending on various factors, such as industry, the specific skills required, and the individual learning style. However, a combination of the following methods is often considered essential: formal education and training, on-the-job training, online courses and self-study, networking, peer learning, and continuous professional development.

Regarding lifelong learning, company leaders play a pivotal role in shaping the organizational culture and encouraging professional development programs, mentoring, coaching, and rewards. In conclusion, the acquisition of relevant vocational, technical, and business skills in SMEs is a multifaceted process that involves various methods. Lifelong learning is essential for both employees and company leaders, and fostering a culture of continuous development in the modern business landscape.

Alexander Kostyuk: Hi Jeremiah, thank you for the answer. The issue of skills is critically important because the problems of skills mismatch and skills gap are still growing. You mentioned that you consider relevant technical and business skills in the context of SMEs. Do you mean the hard and soft skills? If you mean, so what soft skills do you find the most critical — communication skills, critical thinking, problem-solving, etc.?

Jeremiah M. Kapotwe: Dear Professor, thanks for mentioning the importance of skills in the context of SMEs. When I mentioned the relevant technical and business skills, I agree with you that it is a combination of hard and soft skills since both are very important for the success of SMEs.

In the context of soft skills, effective communication is the key to building relationships both inside and outside the organization. Critical thinking is crucial in problem-solving and decision-making. Problem-solving, teamwork and collaboration, time management, leadership, customer service, emotional intelligence, etc.

Combining these soft skills can help individuals and teams thrive in the dynamic and often resource-constrained environment in which SMEs operate. Hard technical skills are essential, too, but soft skills often play a crucial role in how effectively those technical skills are applied and leveraged in a business context.

Alexander Kostyuk: Dear Jeremiah, thank you. I see your way of thinking. You are right — both soft and hard skills are worth further researching.

Jeremiah M. Kapotwe: Dear Professor, thanks a lot. Further research is required.

Magdi El-Bannany: Dear colleagues, thanks for the valuable research topic — I would like to refer to some points:

- How can SME owners and managers practically apply the insights from the study to enhance their leadership skills and improve the management of their enterprises?
- Are there any industry-specific considerations or challenges within the road freight sector that influence the applicability of situational leadership?

Martino Agostini: Hi team, it looks a great project. The growth opportunities and challenges present in Durban's logistics sector necessitate leadership that is adaptable and responsive to the changing needs of the organization and its workforce, precisely what situational leadership theory advocates. Including the nature of actual constraints (i.e., such as port congestion, infrastructure challenges, customs clearance, vehicle availability, traffic conditions, weather, regulatory compliance, and driver regulations) and their impact on management effectiveness, the study could provide valuable insights into how companies can better prepare and adapt their operations in the face of such challenges.

Herman N. Bamata: Dear Magdi, thank you so much for your questions.

Situational leadership is a flexible approach to leadership that involves adapting one's leadership style based on the specific needs of the situation and the individuals involved. SME owners and managers are looking to apply situational leadership in the road freight sector or any other industry, first to familiarize themselves with the basics of the situational leadership model, which typically involves four leadership styles: directing, coaching, supporting, and delegating. Each style is appropriate in different situations, depending on the level of competence and commitment of their team members. Second, they regularly need to assess the competence and commitment levels of their team members. Competence refers to their skills and ability to perform tasks, while commitment relates to their motivation and confidence. This assessment will help them determine which leadership style is most appropriate for each individual or situation. Finally, adapt their leadership styles. Based on the assessment of their team members' competence and commitment, adapt their leadership styles accordingly.

In the road freight sector, there are industry-specific challenges that may influence the application of situational leadership. These can include tight schedules, regulatory requirements, and the need for safety compliance. Consider these factors when assessing competence and commitment levels. The road freight sector can be dynamic, with unpredictable challenges such as traffic delays or unexpected changes in delivery schedules. As a leader, be flexible and adaptive to these situations. This may involve a quick shift in leadership style to address immediate needs.

Dear Martino, thank you for your valuable question. As I answered previously, in the road freight sector, there are industry-specific challenges that may influence the application of situational leadership. These can include tight schedules, regulatory requirements, and the need for safety compliance. Consider these factors when assessing competence and commitment levels. The road freight sector can be dynamic, with unpredictable challenges such as traffic delays or unexpected changes in delivery schedules. As a leader, be flexible and adaptive to these situations. This may involve a quick shift in leadership style to address immediate needs.

Regularly evaluate the effectiveness of your leadership style and its impact on team performance. Be open to feedback from your team and make adjustments as needed. Continuous learning and improvement are key to successful leadership.

Remember that situational leadership is not a one-size-fits-all approach. It requires ongoing assessment, adaptability, and a deep understanding of both your team members and the specific challenges of the road freight sector.

NOMINATION COMMITTEES IN ICELAND AND NORDIC COMPARISON: AN OVERVIEW

by Throstur Olaf Sigurjonsson, Murray Bryant, and Hildur Magnusdottir

Alexander Kostyuk: Dear Throstur Olaf and colleagues, it is great to see your contribution to our conference forum. Nomination committee practices are very important to secure the further proper board dynamics and performance. You stated that the Nordic countries, being similar in many ways, have not all taken the same path regarding nomination committees. Could you explain in more detail what practices of nomination committees in the Nordic countries you mean to fix the major differences?

Magdi El-Bannany: Dear colleagues, thanks for this important research topic — I would like to refer to some queries:

- How do nomination committees contribute to the overall corporate governance framework?
- Are there specific challenges or concerns associated with the selection practices of nomination committees that the research aims to address?
- Are there any specific criteria or indicators used to measure the professionalism and transparency of nomination committees?
- Are there instances where deviation from guidelines is justified or necessary for companies?
- Are there specific instances or trends that highlight the impact of foreign investors on the governance landscape in the Nordic countries?

Martino Agostini: Dear colleagues, very interesting area to investigate. Nomination committees today assume a more strategic role than in the past, facing greater responsibilities given the unique challenges and characteristics of each company. A well-defined agenda is essential. It's crucial for the board to seize opportunities to evaluate and possibly reconfigure board composition to align with fresh strategic imperatives, reassess succession planning, and foster a conducive environment for future advancements. The task of the nominations committee is, indeed, not as straightforward as it may seem.

TOOLS TO DEAL WITH DIRECTORS' REACTION TO FINANCIAL DISTRESS AND RISK: THE ITALIAN MODEL

by Patrizia Riva and Simone Accettura

Alexander Kostyuk: Dear Patrizia and Simone, I am glad to see you at our conference forum. An Italian practice related to the board of directors described by you is extremely interesting because the facilitator expert is a new actor in the system of corporate governance, at least from the point of view of making the board of directors act more properly. As the facilitator expert has the task of facilitating negotiations among the entrepreneur, the creditors, and any other interested parties, in order to identify a solution to overcome the imbalance conditions the role of the facilitator expert is very important. What is the origin of the facilitator expert? I mean education, background, expertise, network, etc. What is your vision of an effective facilitator expert?

Keith Harman: Hi Alexander, a great question for the authors.

Alexander Kostyuk: It seems, Keith, this is some sort of a pioneering approach introduced in Italy. Facilitator expert could deliver more dynamics to the whole system of corporate governance in Italy.

Ilaria Galavotti: Dear authors, could you please offer more details on the kind of study that you conducted? Is this an empirical study where you studied the role played by the facilitator expert on some governance/performance dimension, or instead is it more a conceptual development on the role of the facilitator expert in the Italian landscape? Do you elaborate on specific tools?

Magdi El-Bannany: Dear colleagues, thanks for this significant research topic — I would like to refer to some queries:

- How does the fear of failure and bankruptcy impact the decision-making process of directors, and in what ways does it contribute to the difficulty in pursuing turnaround paths?
- How does the board of statutory auditors contribute to *ex ante* supervision of the board of directors and company management actions?
- How does the role of the sole statutory auditor differ from a traditional board of statutory auditors in larger companies?
- How do companies and professional figures stay adaptive to emerging challenges in crisis situations?

Simone Accettura: Dear Professor Kostyuk, we are really happy to read you and we are honored to participate in today's conference.

Thanks for your welcome and your question about the paper, and thanks to Keith Harman for his kind interest.

The expert's tasks are broad, and consequently, his/her training must be adequate from various points of view. First of all, the expert must analyze the company data to understand the economic and financial situation of the company and evaluate its prospects; secondly, the expert must mediate with possible interlocutors in the recovery process.

Consequently, the expert, on the one hand, must be able to quickly analyze the company's situation to avoid starting negotiations if there are no concrete prospects for recovery and, on the other hand, must possess the knowledge and preparation necessary to ensure that the negotiations are constantly aimed at resolving the business crisis.

The expert is appointed by choosing from a list, of up to now almost 4.000 professionals on a national basis, that contains individuals with precise experience and expertise to carry out such a delicate role. This list is kept at the Chamber of Commerce of each regional capital. Professionals who want to register on the list of experts can submit a specific application to the professional association they belong to (for example, Chartered Public Accountants), which has the task of collecting the applications and evaluating possession of the requirements, and then transmitting them to competent regional Chamber of Commerce the selected names.

The following can be registered on the lists:

- those registered for at least 5 years in the register of chartered accountants and accounting experts and in the register of lawyers who document that they have gained previous experience in the field of corporate restructuring and business crisis, with the exception of the role of bankruptcy trustee;
- those registered for at least 5 years in the register of labor consultants who document that they have contributed, at least in 3 cases, to the conclusion of certain types of insolvency procedures;
- individuals who, even if not registered in professional registers, document that they have carried out administration, management and control functions in companies affected by restructuring operations concluded positively.

The application for registration on the list is submitted by professionals registered in the professional registers (chartered accountants, accountants, lawyers, labor consultants) of the professional associations to which the professionals belong. Other subjects can contact the Chamber of Commerce directly. The person requesting registration on the list must fill out the application carefully because a specific weight is attributed to the training already acquired and which appears in the curriculum vitae, which may contain all the information relating to experience gained in the field of business crises, of restructuring and also in facilitation and mediation techniques.

Registration on the list is also subject to training obligations through participation in a specific 55-hour course on legal and business topics determined by the Ministry of Justice.

Dear Ilaria, nice to meet you, and thank you for your question. The paper we present essentially aims to highlight how the role of independent professionals, introduced and strengthened by recent Italian legislative changes, can help directors to promptly map the possible and probable evolution of their business taking into consideration risks and compliance in a more systematic way. In this regard, the indications, suggestions and determinations of the expert, as well as of the B.O.S.A. and the Attestor, can be useful for the entrepreneur to evaluate the situation and the solutions to the crisis in a more clear and efficient way. Empirical research on the role played by the expert on governance dimensions can certainly be of interest, considering that the context of corporate governance is relevant for the expert both *ex ante*, as the expert's work will be easier the more the structure of existing governance is adequate, both *ex post*, as the recovery of a company is often conditioned, also at the request of creditors, on the adoption of governance measures that make the proposed recovery plan credible and sustainable.

We would therefore be glad if you would like to share with us, also in the future, ideas and updates on research of this type.

Alexander Kostyuk: Dear Patrizia and Simone, I see that it is a very strict and regulated procedure to be an expert and to be on the list. Does it mean that these lists are regional and can differ in various regions?

Simone Accettura: Dear Magdi, nice to meet you, and thank you for your interest in our paper.

The entrepreneur's fear of failure and bankruptcy is often the basis of a behavior in which the entrepreneur is tempted not to recognize the crisis promptly and consequently to postpone a resolution until the difficulties become too invasive for the survival of the company. From this point of view, the Italian Insolvency Code, along the lines of the 2014 European Commission Recommendation to Directive 2019/1023, encourages early warning mechanisms considering that the greater the probability of avoiding insolvency the sooner an entrepreneur is able to identify financial difficulties and take appropriate measures.

Independent professionals can encourage a crisis resolution process that starts early, supporting the entrepreneur in identifying the causes of the crisis and expressing opinions on the management decisions, which always remain the responsibility of the directors.

In the first phase of the crisis, B.O.S.A. has the obligation to monitor the behavior of the administrative body, ensure that it establishes procedures useful for the production of reliable final and forecast data dashboards for understanding the current and prospective situation as well as mapping the associated risks to possible business choices.

If a crisis arises, B.O.S.A. must ensure that the administrators are aware of the existence of an increased criticality and must assess whether the planned interventions are sufficient to overcome the impasse. If the directors do not take action to seek solutions, board of statutory auditors must send a written report to the directors which summons directors within thirty days to report on the initiatives they want to undertake.

This formal action should boost directors in the direction of taking awareness of the need for early warning moves and consider whether the company is in the conditions for the presentation of the request for access to a negotiated settlement of the crisis. If this is the case directors will be invited to ask the Chamber of Commerce, not the court as the procedure has been structured as extra-judicial, to apply an expert facilitator.

The choice to entrust the supervisory activity to a sole statutory auditor instead of the B.O.S.A. is not in itself an inadequate choice, as long as the choice is made considering the nature and size of the company according to a principle of proportionality. The Italian Insolvency Code emphasizes the relevance of the adequacy of organisational, administrative and accounting structures with a view to encouraging early warnings. The organization of the administrative and control bodies for the establishment of adequate organizational structures must necessarily be defined by each company taking into account its size, the degree of complexity of the activity carried out and compliance with regulatory obligations. In smaller companies, relatively simplified structures could be adequate, provided that the administrative body is able to govern in an informed and effective manner. As the size of the company grows, however, it will become increasingly appropriate, if not necessary, to articulate intermediate organizational levels and implement increasingly more structured procedures.

About the emerging challenges we immediately think about ESG issues and sustainability objectives. The entire corporate organizational structure, from the administrative, management and control bodies to the executive and operational levels, must increasingly be focused on a common objective of sustainable development. In this context, B.O.S.A. has to play a proactive role towards the transition of companies towards sustainability seen not only as a factor of competitive advantage but rather as a necessary condition to guarantee the creation of value. In order for this mechanism to work, it appears useful to combine the financial indicators and also include non-financial indicators, which must be recognized as having complementary relevance. Non-financial information could play a crucial role, detaching themselves from financial logic, as they are oriented towards the future and consequently have a high predictive value.

Dear Professor Kostyuk, we agree with you, the requirements are very strict, rightly — we think — considering the delicate and peculiar role. These also include the intrinsic requirements of ethics and deontology, specific to the professional associations to which the professionals registered on the list may belong.

The expert must meet specific independence requirements and is subject to confidentiality obligations. He/she is a professional to whom the entrepreneur has the duty to represent his situation in good faith in a complete and transparent way, and with whom the parties have the duty to collaborate promptly and loyally. He/she must operate with independence and impartiality towards all parties, that is, with equal detachment from them. He/she is third to all parties and is expected to act in a professional, confidential, impartial and independent manner. To guarantee this, the expert must not be linked to the company or to other parties interested in the recovery operation by personal or professional relationships; the subjects with whom the expert is possibly joined in a professional association must not have performed subordinate or self-employed work in favor of the entrepreneur in the last 5 years nor have been members of the company's administrative or control bodies; the expert cannot maintain professional relationships with the entrepreneur if at least 2 years have not passed since the negotiation of the negotiated settlement has been archived ("freezing out period").

We specify that the lists are held at the regional level mainly for organizational reasons, but the requirements and rules are the same at the national level. Furthermore, the Chamber of Commerce commission responsible for the appointment can identify the expert even outside the regional context. In this way, the list acquires a national dimension.

THE IMPORTANCE OF QUALITY IN THE RELATION BETWEEN EXTERNAL AUDITING AND GOVERNANCE: THE CASE OF GREECE

by Yiannis Yiannoulis and Dimitrios I. Vortelinos

Alexander Kostyuk: Dear Yiannis and Dimitrios, welcome to our conference forum. In your study, you concluded that there exists high explanatory power between financial ratios and auditor quality (type of audit firm) and qualifications in auditors' reports. Could you explain in more detail what types of audit firms you consider in your study?

Basma Bchennaty: Dear Yiannis and Dimitrios, could you kindly elaborate on the distinctive aspects that set your paper apart?

Dimitrios I. Vortelinos: We are delighted for our participation. The major contribution concerns the implementation in a case study (i.e., Athens Exchange). It analyzes the role of analytical procedures in auditing; in detail, the effect of liquidity, profitability, and financial leverage ratios in predicting auditor quality.

Audit firm type (audit quality) is indicative of the reliability of auditor report; specifically, Big 4 international audit firms are expected to provide higher-quality audits.

The Big 4 international audit companies include (in alphabetical order): 1) Deloitte, 2) Ernst & Young (EY), 3) KPMG and 4) PriceWaterhouseCoopers (PwC). Some years before there were Big 6 firms including a) Arthur Andersen (collapsed after Enron financial/auditing scandal in 2001) and b) Coopers & Lybrand (merged with PriceWaterhouse).

The results of this paper showed that auditor quality is highly important and for that reason, audit committees should take that into account when choosing an audit firm.

Alexander Kostyuk: Dear Dimitrios, I agree with you absolutely. The role of the audit committee on the board of directors, its expertise, composition, probably gender diversity, etc. is growing along with the complexity of business the company runs.

Dimitrios I. Vortelinos: This study has some limitations, however. First, the sample for each year is small (90 companies) as Athens Exchange is a small capital market; for that reason, our results may not be applicable to other, more developed capital markets. Second, this study represents the specific economic, cultural, corporate and audit market conditions that exist in Hellas (Greece).

Martino Agostini: Hi Dimitrios, great study! I would include the description of the auditor's responsibilities. the auditors, audit committee, and board of directors work in a coordinated manner to ensure the integrity of financial reporting, the effectiveness of the audit process, and the overall financial health of the organization.

Magdi El-Bannany: Dear colleagues, thanks, the research topic is interesting — I would like to refer to some queries:

- What is the level of explanatory power observed between financial ratios and auditor quality in relation to the issuance of qualified or unqualified auditors' reports?
- In what ways can auditors practically apply the developed model in predicting audit opinions for other firms, evaluating new clients, determining audit scope, and reducing potential lawsuits?
- How does the study emphasize the role of external audit as a governance mechanism for ensuring the quality of reported financial information?

Dimitrios I. Vortelinos: Dear Martino, thank you for your suggestions. These factors, if can be accompanied by measured variables, can really help us explain the importance of auditing.

There are ratios that are used as either independent or control variables. Thank you for your suggestions; we will add a subsection of implications to our paper. There is no inclusion of a governmental mechanism in the explanatory model. Thank you for your suggestion. We will hopefully find the respective variables to include such factor.

GENDER BALANCE IN THE ACADEMIC ACCOUNTING PROFESSION

by Stavroula Kourdoumpalou

Živilė Stankevičiūtė: I like the idea of your paper.

Keith Harman: Hello there, I wasn't an author or coauthor but I too enjoyed the paper. Great to see you here!

Alexander Kostyuk: Dear Stavroula, I am glad to see you at our conference forum. You concluded that your study provides evidence regarding gender balance and equality in the European academic environment. Does it mean that you confirm that such gender balance actually exists recently or anything should be made toward achieving this balance?

Stavroula Kourdoumpalou: Dear all, nice to meet you in this conference forum. I really appreciate your feedback! With regard to the number of male/female faculty, we notice that the academic accounting profession does not constitute an "old boys network" anymore as the entrance of women in the accounting academia has increased in more recent years. Therefore, taking into account the percentage of male/female academic faculty we could say that gender balance has been achieved.

However, we also notice (based on the regression analysis) that gender (is one of the variables that) significantly affects publication productivity with women having fewer publications in the case of assistant professors/lecturers. This does not apply when we examine professors/associate professors. This is an indication that a gender imbalance exists in the early stages of their careers. A possible explanation for this is the smaller publication networks. This has also been pointed out by previous studies (such as Symonds et al., 2006) that female academics report significantly less encouragement to publish and to collaborate on research projects in the early stages of their careers which forces women to try to "catch up" later in their careers.
(Symonds, M. R. E., Gemmell, N. J., Braisher, T. L., Gorringe, K. L., & Elgar, M. A. (2006). Gender differences in publication output: Towards an unbiased metric of research performance. *PloS ONE, 1*(1), Article e127. https://doi.org/10.1371/journal.pone.0000127)

Valentina Santolamazza: Dear colleague, I find some of the conclusions that you reached really interesting! Regarding the lack of mobility for academic women, do you intend to continue the research to understand the motivations?

Generally speaking, I would try to deepen and interpret the findings. Thank you very much!

Martino Agostini: Dear colleague, the idea is interesting. I would like to suggest an initial distinction considering that the requirements for a university professor and a business school professor, while similar in many respects, can have distinct differences.

Stavroula Kourdoumpalou: Dear Valentina, thank you very much for your comment. Yes, I indeed intend to extend the research. Regarding the mobility of the male/female faculty, I am thinking of examining the rank of the university where they earned their PhD as well as the rank of the university of their initial academic position. Also, the country's characteristics I believe that are important in academic mobility. I intend to examine them by analyzing development indicators provided by the World Bank. Surely, personal characteristics of the faculty (such as marital status, number of children) may play a role in their decisions but their examination is not feasible in the present study which is based on publicly available data and not on questionnaires.

Keith Harman: I think this will be a very interesting paper.

Dear Martino, I agree. In the USA we differentiate between "research universities" versus "teaching universities".

Stavroula Kourdoumpalou: Dear Martino and Keith, thank you very much for your comment. It is very useful and I will elaborate more on this in the paper as well. In Europe, there is no differentiation between "research universities" and "teaching universities". They are all called "universities" and the faculty members have teaching duties, research duties and administrative studies. However, in some (limited) countries there are some positions only for teaching staff which cannot be promoted to upper ranks. This staff is excluded from the analysis.

Valentina Santolamazza: Thank you for your answer! Very interesting.

Salem Alomairi: Dear Stavroula, it would be good to also look at what's happening in countries outside Europe, and check if things like working part-time or having a mentor make a difference. Watching how things change or stay the same over a few years could also tell us a lot.

Stavroula Kourdoumpalou: Thank you very much for your suggestion. I will definitely keep this in mind for future research.

Keith Harman: Hi Stavroula, you are very welcome. I am so very impressed with your work and all of you inform my teaching. Thanks to all of you for a great conference so far!

Ilaria Galavotti: Dear authors, thank you for your study. My question relates to your sampling. Are universities without a dedicated accounting department but with accounting professors considered in your study? You also state that "the subsample of the accounting scholars was identified based on their teaching duties and publication records": does this mean that you looked at the name of the courses they teach and the journals where they have published? So, in case a university has a more general department on management/social sciences, was it considered?

Stavroula Kourdoumpalou: Dear Mrs. Galavotti, the ranking of universities in the Edurank database is based on their research performance in accounting. The academic structure of most universities is organized into schools and then into departments. Therefore, in order to identify the accounting faculty I first tracked the related school (usually School of Business Administration, School of Economics and Management, etc.) and then searched for the accounting faculty in all of the departments. So, to answer your question the sample consists of accounting faculty not only in Accounting Departments but also in Departments of Management, Business Administration, Economics, etc. (I must make this more clear in the paper).

Regarding the second part of your question: Luckily, in the majority of the universities the accounting faculty is recognized in the webpages. For example, it is stated "professor in accounting". Furthermore, in many universities, the faculty is divided into groups/units. In these cases, I searched the accounting group/unit and supplementary I looked into their teaching duties/publications to make sure that they do not belong to other disciplines (for example, in some accounting units there were faculty members in informatics). In the rest cases (i.e., universities) this information was not available and I examined the teaching duties as well as the publications of the faculty to identify the accounting academics.

Also, at this stage of data selection, I found the Scopus IDs for all the members of the sample. Therefore, I had a glance at their publications as an additional guarantee that they are in the field of accounting.

Dineo Faith Mazibuko: Dear Stavroula Kourdoumpalou, thank you for the interesting study that identifies gender imbalances in the academic profession of accounting. While I understand that the examination of the factors that drive these differences does not fall within the scope of this research, it will be interesting to know some of the recommendations to bridge the gap.

Stavroula Kourdoumpalou: Dear Dineo Faith Mazibuko, the question of what drives gender disparities is of great importance but does not have an easy answer. Based on literature in other fields, this could be due to time and family considerations, discrimination and stereotypes or psychological attributes such as risk tolerance and attitudes towards competition. However, these factors cannot be examined based on publicly available data.

However, the regression analysis showed that gender imbalance is evident in the lower academic ranks. The factors that contribute to it are academic mobility and the network of co-authors. I believe that these findings shed some light on what drives publication productivity and career performance.

Magdi El-Bannany: Dear Stavroula, thanks for the interesting research topic — I would like to refer to some queries:

- How reliable and comprehensive is Edurank.org as a source for constructing the dataset, especially considering the varied structures and dimensions of universities across European countries?
- What criteria were used to identify accounting faculty members within the universities, and how representative is the final sample of more than 1,200 faculty members?
- How do the results of the research contribute to the understanding of diversity, equity, and inclusion (DE&I) in the European academic accounting profession?

Stavroula Kourdoumpalou: Dear Magdi El-Bannany, I really appreciate your feedback. It was a challenge to track the ranked universities in the field of accounting. For example, the Times Higher Education rankings do not provide Accounting as a separate subject but in conjunction with finance (i.e., the subject "Accounting & Finance"). Likewise, the QS World University Rankings also provide rankings on the subject of "Accounting & Finance" and not solely on Accounting. However, a large number of these universities do not have a Department of Accounting (or faculty in the field of accounting). Therefore, I first relied on the Edurank database as the only available database that provides rankings in the subject of Accounting in order to form the sample of the study. However, for the rankings of the universities in the statistical analysis, I relied on Times Higher Education.

Regarding the criteria used to identify the accounting faculty members: in the majority of the universities the accounting faculty is recognized on the webpages. For example, it is stated "Professor in Accounting". Furthermore, in many universities, the faculty is divided into groups/units. In these cases, I searched the accounting group/unit and supplementary I looked into their teaching duties/publications to make sure that they do not belong to other disciplines (for example, in some accounting units there were faculty members in informatics).

In the rest cases (i.e., universities) this information was not available and I examined the teaching duties as well as the publications of the faculty to identify the accounting academics. Also, at this stage of data selection, I found the Scopus IDs for all the members of the sample. Therefore, I had a glance at their publications as an additional guarantee that they are in the field of accounting.

I believe that the final sample is representative of the accounting faculty in the highest-ranked universities in Europe. In fact, the population of the accounting faculty in these universities is examined and not a sample of the above-mentioned faculty.

Last, the current study actually tries to map the accounting profession in Europe and thus it could contribute to the DEI initiative.

Keith Harman: Good morning everyone. Stavroula, thanks for giving us an insight into the challenges of obtaining study data. I was intrigued by your efforts to map the accounting profession in Europe.

Adam Samborski: Dear Stavroula, I find the issue of gender balancing you have taken up extremely interesting and necessary. Very often these issues are taken up in the context of large corporations and forgotten about by smaller entities or even liberal professions or schools or public institutions. I am very curious about the research results and the research method you used.

DETERMINANTS OF AUDIT FEES ACROSS CENTRAL AND EASTERN EUROPEAN COMPANIES BEFORE AND DURING COVID-19

by Renata Legenzova

Alexander Kostyuk: Dear Renata, I am glad to see you at our conference forum. In the study conclusion, you indicated that the total assets of auditee, ratio of auditee's foreign revenue, auditee's number of employees and auditor's belonging to Big 4 companies were significant positive determinants of audit fees. It is actually very detailed results. You mentioned the ratio of auditee's foreign revenue. Does it mean that globalization is a factor still strongly influencing the auditors' fee and the national market features would become secondary? What do you think about other perspective issues of further research in the field factors influencing the auditor's fees?

Renata Legenzova: Dear Alexander, thank you for your feedback. Talking about CEE countries, many of them represent small open economies. The scope of this research was listed companies, representing a larger segment of entities in those economies. Saying so, it is rather expected, that such companies will sell their products and services beyond national boundaries. From audit fee perspective, that brings additional tasks and costs for an auditor therefore it is expected that audit fees for companies with international sales should be higher.

Keith Harman: Thanks Renata, systems that have more permeable boundaries will tend to be more responsive to milieu they inhabit.

Basma Bchennaty: Dear Professor Alexander Kostyuk, I extend my sincere gratitude for granting me the opportunity to participate in this esteemed international conference. I am truly thrilled to be a part of this scholarly event.

Alexander Kostyuk: Thank you, Renata. I see your point. Do not you think that the type of ownership could strengthen the effect of international sales? I mean that such companies could be more inclined to bear higher costs of auditing. This is just a supposal.

You are welcome, Basma to comment on any presentation you find reasonable. This is a task of the conference forum. From the point of view of time zones, it is very easy to overcome this obstacle when you can comment at any time and manage your time and tasks around.

Magdi El-Bannany: Dear Renata, the research topic is always interesting to tackle — I would like to refer to some queries:

- How does the determination of audit fees contribute to efficient capital allocation in financial markets?
- How was the modified model of Hribar et al. (2013) tailored to the available data on Central and Eastern European companies?
- What are the key contributions of this study to the field of audit fee research, especially in the context of Central and Eastern European countries during market turbulence?
- What practical implications do the findings have for auditors, companies, and policymakers in the region?

Martino Agostini: Hi Renata. This is an area the EU needs to monitor. In the EU audit market, the price of audit services is also reflective of the responsibility that audit firms must bear, including being held accountable for any wrongdoing. Auditors are expected to provide assurance of the accuracy of financial statements, and failure to do so can result in significant legal and financial consequences.

ANALYSIS OF THE LONG-TERM EFFECTS OF THE VOLUNTARY BID RULE ON BRAZILIAN STOCK

by Andre Carvalhal and Jose Sanchez Filho

Alexander Kostyuk: Dear Andre and Jose, I am glad to see you at our conference forum. The issue of protection of minority shareholder rights is still actual worldwide both for researchers and practitioners. In this context, one of the most important forms of protecting minority shareholders is the mandatory bid rule. Could you describe an evolution of this issue in Brazil from the regulatory and governance perspectives?

Basma Bchennaty: Dear Andre and Jose, I acknowledge the significance of this research paper. However, I notice a brevity in the previous studies that could enhance the depth of this research, as they constitute a fundamental element and form the essential theoretical aspect of the study.

Martino Agostini: Dear Andre and Jose, it is a very interesting paper. I would include an investigation on the long-term effects of the voluntary offer of the mandatory bid rule (tag-along rights) on firm valuation and share liquidity, as well as conducting a sector-specific analysis of some industries that might show different patterns due to their unique market dynamics and investor profiles.

Andre Carvalhal: Dear Alex, happy to be at the conference.

Dear Basma and Martino, thank you for the insights. Indeed, the mandatory bid rule (MBR) is an important aspect of investor protection in Brazil. It is included in the legislation and requires the buyer to make an offer to minority shareholders of common shares for at least 80% of the price paid. Before 1997, it was 100%, and from 1997 to 2001, it was 0%! Due to privatization programs at that time. The companies listed in new market (NM) offer 100% to all shareholders. Basma and Martino, thanks for the ideas. We will enhance this study and put more elements on the paper, such as a sectorial analysis.

Alexander Kostyuk: Dear Andre, thank you for the detailed answer. I see that the evolutionary progress in Brazil related to the mandatory bid rule is obvious. Are there recently other mechanisms of minority shareholders protection in Brazil? Are these mechanisms effective too?

Magdi El-Bannany: Dear colleagues, thanks, the research topic is interesting — I would like to refer to some points:

- How does the corporate governance mechanism operate, and what are its primary objectives?

- What implications can be drawn from the observed impact of voluntary tag-along rights on common shares' liquidity?
- Are there potential explanations or theories about why liquidity is affected while firm valuation remains unaffected?

Andre Carvalhal: The new market is an initiative that has several mechanisms for minority shareholders, such as issue of only voting shares, more rights to elect independent directors, arbitration to solve corporate disputes, etc. All of them offer great protection to investors.

Great question. We are doing some robustness tests to check why liquidity is affected by MBR and value is not. We are testing other variables for value proxy and other econometric techniques (dynamic GMM, etc.).

TOKENIZATION IN CORPORATE GOVERNANCE: TRANSFORMING OWNERSHIP AND TRANSPARENCY

by Martino Agostini

Alexander Kostyuk: Dear Martino, welcome to our conference forum. The issues you are considering in your paper are truly innovative. For example, you wrote that the tokenization process involves several steps, including asset sourcing, token issuance and custody, token distribution and trading, and asset servicing and data reconciliation. Furthermore, you concluded that a more comprehensive analysis of the regulatory landscape's response to tokenization will equip companies with holistic insights, serving as a guiding compass for the successful adoption of this revolutionary approach and ensuring they remain at the vanguard of corporate governance innovation. Could you provide your vision of the most challenging stages of the tokenization process mentioned above from the regulatory perspective?

Martino Agostini: Hi Alexander, thanks for your question. "Given EU financial law neither defines what shares, bonds, nor equivalent instruments are precisely, nor does it clarify what constitutes negotiability, the understanding of transferable securities and negotiability varies across EU Member States" (Zetzsche et al., 2023).

The tokenization process, especially in the context of financial assets or digital currencies, involves several challenging stages from a regulatory perspective. These include:

- *Compliance with existing financial regulations*: Tokenization must adhere to existing financial laws and regulations, which can vary significantly across jurisdictions. This involves ensuring compliance with anti-money laundering (AML) laws, know-your-customer (KYC) requirements, and securities regulations. The decentralized nature of blockchain and tokenization can make this compliance more complex.
- *Navigating securities laws*: If tokens are classified as securities (as is often the case with ICOs or tokenized assets), they must comply with the relevant securities laws. This includes registration requirements, disclosure obligations, and trading restrictions, which can be challenging to implement on a blockchain platform. The Markets in Crypto-Assets Regulation (MiCA) institutes uniform EU market rules for crypto-assets. The regulation covers crypto-assets that are not currently regulated by existing financial services legislation.
- *Data privacy and security.*
- *Cross-border regulatory challenges.*
- *Regulatory uncertainty and evolving laws.*
- *Consumer protection.*
- *Tax compliance.*
- *Smart contract governance and legal recognition.*

Each of these stages presents its own set of challenges and requires a careful approach to navigate successfully in the rapidly evolving world of blockchain and tokenization.

I am working on a paper that covers all these areas.
(Zetzsche, D. A., Annunziata, F., & Sinnig, J. (2023). *Digital assets, MiCA and EU Investment Fund Law*. https://doi.org/10.2139/ssrn.4637019)

Pongsakorn Limna: This work provides a valuable contribution to the field of corporate governance, especially in understanding the role of tokenization. It offers a solid foundation for both practitioners and scholars to further explore and capitalize on the benefits of this emerging technology while being mindful of its challenges.

Alexander Kostyuk: Hi Martino, thank you for the update. It is valuable. It seems that regulation in this issue is still on the way, but the research of tokenization and corporate governance is just about to start. This is a very promising field of research.

Magdi El-Bannany: Dear Martino, thanks, the research topic is important — I would like to refer to some points:

- How are practitioners adapting to regulatory guidelines for blockchain platforms, especially in the context of share tokenization?
- Are there notable challenges or considerations that practitioners face in this evolving domain?
- Are there specific stakeholder groups that are likely to be more affected or involved in the evolving landscape?

FOREIGN OWNERSHIP AS A CORPORATE GOVERNANCE MECHANISM AFFECTING THE FIRM VALUE

by Meltem Gurunlu

Alexander Kostyuk: Dear Meltem, I am glad to see you at our conference forum. As you wrote this study examines the effect of foreign ownership on firm value by affecting corporate policies as a corporate governance monitoring mechanism and contributes to the literature on the role of foreign shareholdings which are especially important for emerging markets in three stands: increased level of board independence which serves to eliminate the conflicts of interest among different stakeholders within a company, a dividend policy disciplining the management of free cash flows and an investment policy focusing on more research and development (innovation), enabling high growth opportunities and profitable investments. Could you outline certain results of your study in particular related to the influence of foreign ownership on the independent director dynamics within the companies?

Meltem Gurunlu: Dear Prof. Alexander Kostyuk, thank you for your valuable comment. The dynamics of foreign ownership and independent foreign directors are assumed to be as the following: "higher foreign ownership leads to involvement of more unaffiliated outsiders in the form of foreign directors affecting the independence level of the board which will indicate more monitoring power by independent outsiders and good motives for corporate governance which in turn will increase firm's market value". The research is still in progress. It is unfinished but the assumed relations will be tested.

Alexander Kostyuk: Hi Meltem, your comment is very useful. Absolutely! Just one more question: Do you expect to study separately institutional outside owners and individuals? I mean your statement "higher foreign ownership leads to involvement of more unaffiliated outsiders in the form of foreign directors affecting the independence level of the board which will indicate more monitoring power by independent outsiders and good motives for corporate governance which in turn will increase firm's market value". Probably, the effect could be different.

Ilaria Galavotti: Dear authors, thank you for your study. Could you please clarify if you consider foreign versus domestic ownership as a dichotomous concept or instead explore the role played by ownership concentration in terms of share of foreign owners on total owners? Could you also please add information on how you measure "firm value"?

Martino Agostini: Hi Meltem, great project. The various forms of foreign ownership in companies are characterized by distinct features and consequences. The type of foreign ownership a company experiences influences the degree of control exerted by foreign entities, their investment goals, and the strategic direction they may encourage. This diversity in ownership types plays a critical role in shaping a company's operational methodologies, governance structures, and overall developmental path, thereby significantly affecting its performance and future prospects.

Meltem Gurunlu: I mean the institutional foreign shareholdership bigger than 10% which will have more power for voting.

Foreign ownership is assumed to be positively correlated with the probability of an increase in Tobin's Q.

Alexander Kostyuk: Thank you, Meltem. Now I see that you address a focus on institutional foreign ownership.

Magdi El-Bannany: Dear Meltem, the research topic is interesting — I would like to refer to some queries:

- How do foreign owners impact corporate governance policies, and what are the specific channels through which foreign ownership is expected to affect firm value?
- How is foreign ownership linked to innovation-oriented research and development investments, and what is the expected impact on managers' behavior and capital expenditures?
- Why is the role of foreign shareholdings particularly important for emerging markets, and how might the findings of the study have implications for corporate governance practices in these markets?

Meltem Gurunlu: Especially for emerging markets, the role of foreign shareholdings is a highly debated topic. In general, there are two clashing views about foreign ownership of firms in emerging markets. The first view implies that when foreign owners are focused on high gains in the short term, they may not care about corporate governance policy since they keep aloof from monitoring costs. On the contrary, if foreign shareholders have a long-term investment motive, they provide a good monitoring mechanism on the corporate governance policy of the firm as they are independent of the controlling ownership (largest blockholder) and local governments.

THE EFFECTS OF CORPORATE GOVERNANCE ON ENVIRONMENTAL, SOCIAL AND GOVERNANCE PERFORMANCE: EVIDENCE FROM THE U.S. BANKING SECTOR

by Paolo Capuano

Alexander Kostyuk: Dear Paolo, welcome to our conference forum. As I see you have outlined a vision of your upcoming study to analyze the relationship between bank board composition (the main independent variables are gender diversity, independence, size, activity, and ESG/CSR committee) and performance of the ESG dimensions. What do you mean by the word "activity"? Is this an activity of the board of directors, for example, a number of meetings of the board? Also, I would recommend you include one more variable — Chairman-CEO duality, which is more popular among the US companies than, for example, the UK.

Paolo Capuano: Dear Alexander, thank you, it is always a pleasure to be able to participate in the forum of our conference. Regarding the current study, you have perfectly centered the topic covered. In fact, measuring the activity of the board of directors could be done by using the number of board meetings as a proxy variable. Furthermore, I thank you for the very useful advice to improve the analysis model such as the variable on President-CEO duality. I could find this variable from the BoardEx database or even from individual reports on corporate governance.

Alexander Kostyuk: Dear Paolo, great. What could I suggest more? Probably, using the number of CSR/ESG committee, but not just the board in a whole, meetings as a proxy variable.

Paolo Capuano: Thanks Alexander, I will also take into consideration these very useful variables for the object of my study and consequently I will implement the literature review.

Alexander Kostyuk: I expect that this would even add more value to your study, Paolo.

Martino Agostini: Hi Paolo, the study is very promising. I suggest referring to the work titled "*ESG Disclosure: Regulatory Framework and Challenges for Italian Banks*" by Loizzo and Schimperna (2022). This paper examines the evolving regulatory framework in the European context concerning climate risk requirements for banks and non-financial firms, particularly focusing on Italian banks. It provides insights into the Pillar 3 disclosure requirements, which are highly relevant for

understanding governance, risk, and compliance (GRC) in the context of ESG disclosures. This resource could offer valuable perspectives and data for your study on bank board composition and ESG performance.
(Schimperna, F., & Loizzo, T. (2022). *ESG disclosure: Regulatory framework and challenges for Italian banks* (Bank of Italy Occasional Paper No. 744). https://doi.org/10.2139/ssrn.4463149)

Salem Alomairi: Dear Paolo, your study on how corporate governance affects ESG performance in US banks is timely and relevant. It's great that you're looking at board composition like gender diversity and independence. Could expanding your research to include how digital banking trends impact ESG performance add value to your findings?

Also, it might be beneficial to explore how technological advancements in the banking sector, such as digital banking, influence ESG outcomes.

Dmitriy Govorun: Hi Paolo! Thanks for sharing your paper and ideas with us. You mentioned that due to statistical analysis made in the paper, you found some elements/best practices for management that may be used by supervision authorities to evaluate correct incentive policies. As it is a sample of US banks which can be applicable to European context?

Paolo Capuano: Hi Martino, thank you very much for the valuable suggestion. I just took a look at the work of Loizzo and Schimperna (2022) and it seems very interesting and stimulating. I really think I will analyze it to draw new ideas and will include it in the bibliography of the final paper.

Dear Salem, your suggestion is very interesting and concerns a topic analyzed by very recent literature. I will get to work to try to identify the digital banking variables by analyzing the specific papers on this challenging topic.

Keith Harman: Great discussion on the definition of variables especially the use of a proxy variable.

Paolo Capuano: Hello Dmitriy! Thanks for your comment. I believe that it is not obvious that the results of the study can also be extended to the European banking system. European banks suffer from a significant gap in terms of size, profitability and investment capacity compared to American banks. Perhaps it would be useful to make a comparison between the two banking systems by analyzing two significant samples.

Hi Keith. Yes, the identification of the variables represents an important part of the study also because they are not always easily available.

Magdi El-Bannany: Dear Paolo, the research topic is interesting — I would like to refer to some queries:

- How has the trend towards corporate sustainability evolved in recent years, and what factors have contributed to the increased sensitivity of companies to sustainability issues?
- The concept of sustainability is mentioned in terms of environmental, social, and governance (ESG). How are these dimensions defined in the context of the study, and why are they considered fundamental for assessing a company's sustainability commitment?
- How might the results of the study inform banking regulation and supervision regimes? Are there specific recommendations or insights that can be derived for regulatory authorities based on the findings?
- Besides regulators and supervisors, how might the study's results impact other stakeholders in the banking sector, such as customers, investors, or the general public?

Ilaria Galavotti: Dear Paolo, thank you. I find your study very interesting. could you please offer more details on the variables and measures that you used?

Paolo Capuano: Dear Magdi, I am very grateful for your thoughtful questions and your appreciation for my research topic.

Regarding the first question, I believe that there is an undeniable growing trend towards corporate sustainability furthermore, demonstrating that you are a sustainability-oriented company means creating added value and customer loyalty but also having access to subsidized and dedicated public financing, as well as having a greater probability of obtaining private investments.

Regarding the second question I believe that the concept of sustainability based on ESG indicators is the most widespread in recent literature. The definitions of these three dimensions considered in the context of the study are those given by the technical documentation contained in the Refinitiv database.

Regarding the third question, it should be highlighted that regulatory authorities, supervisors, rating agencies and various stakeholders globally are showing a growing interest in ESG issues, leading to new requirements in measurement and management processes and greater needs for reporting. This constant flow of new regulations is bringing new compliance challenges for banks.

Of course, in addition to regulators and supervisors, the study findings could impact other stakeholders in the banking industry, such as customers, investors or the general public. In fact, there is a strong increase in demand for "sustainable" products from investors.

Dear Ilaria, thank you very much for your appreciation of the study. The governance variables examined so far have concerned the independence of the board members, gender diversity, the size of the board, the number of meetings, the existence of ESG/CSR committees while I obtained the ESG dimensions from the database Refinitiv. I received many interesting comments at this conference that gave me ideas for implementing the model.

Loai Ali Alsaid: Dear Paolo, thank you for your manuscript. It is really interesting work and findings that contribute to the current corporate governance literature on environmental, social and governance (ESG) performance. However, I argue that the manuscript still needs more work to frame your empirical findings within a particular theoretical framework (e.g., institutional theory). Using a theoretical framework will help readers understand your theoretical contributions and the conceptual implications of your findings. I wish you all the best in continuing to work on the paper.

Khadija Al Arkoubi: Dear Paolo, the identification of a research gap in the literature, particularly in the limited exploration of ESG performance in the banking sector, adds significance to your study. The abstract introduces key variables like board independence and gender diversity as central to the investigation, aligning with broader discussions in corporate governance.

In light of the identified gap in the literature concerning ESG performance in the banking sector, could you discuss the potential implications of filling this gap? How might the study's findings contribute to the existing knowledge base and influence corporate governance practices, particularly within the banking industry?

Paolo Capuano: Dear Khadija, thank you for your interesting considerations, which I will evaluate for the development of my research.

GREENING VIA NEW PRODUCT AND SERVICE DESIGN WITH BCMS ISO 22301 AND UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

by Shirley Mo Ching Yeung, Queenice Wong, and Aubree Wai

Dmitriy Govorun: Dear Shirley Mo Ching Yeung, thank you very much for participating in the conference and bringing the light on SDGs, BCMS and the case studies with game facilitations. You've pointed out that after the workshop majority of participants (young engineers) marked the game as nice to play and meaningful. This is a really great result. Of course, this will influence the daily lifestyle of each participant. Are there any plans on how to measure long-term effect of the mentioned games and workshops?

I'd like to proceed with one more question/comment here. The paper presents a compelling argument for integrating the United Nations Sustainable Development Goals (UNSDGs), design thinking, and BCMS ISO 22301 as a means to foster resilience in reskilling and upskilling efforts, particularly in the post-COVID-19 era. You investigated the results of a case study for Flemming Technology Limited. Have you noticed specific challenges that organizations, like Flemming Technology Limited, might encounter in implementing BCMS ISO 22301 for business continuity post-pandemic?

Martino Agostini: Dear Shirley Mo Ching Yeung, I would be particularly insightful to delve into the time required for patent registration, the property rights issues, and the associated costs within University IP Management as the subject of this research.

Magdi El-Bannany: Dear colleagues, the research topic is important — I would like to refer to some queries:

- The outlined future research areas are broad and diverse. Could you specify how the paper recommends addressing the identified research areas, especially in terms of practical instruction guidelines, SME development, and narrowing the gap between professionals and workers?
- How does the paper envision reaching and impacting the target audiences, including funded and self-financed college/university teachers, academics, professionals, and the general public? Are there specific dissemination strategies mentioned?
- In the context of using virtual space for SDG games and expanding participation to overseas countries, what challenges and opportunities are anticipated? How might the virtual approach enhance soft skills development in a global context?

CAREER ADAPTABILITY AS A MEDIATING FACTOR FOR PERSONALITY TOWARDS ENTREPRENEURIAL INTENTION

by Panagiotis A. Tsaknis, Panagiota I. Xanthopoulou, Christina D. Patitsa, and Alexandros G. Sahinidis

Basma Bchennaty: Dear Panagiotis A. Tsaknis, Panagiota I. Xanthopoulou, Christina D. Patitsa, Alexandros G. Sahinidis, I have perused your extended abstract with keen interest. Best wishes for the success of your research endeavors.

Tanpat Kraiwanit: Good paper but should explain more clearly recommendations.

Dmitriy Govorun: Dear colleagues! Thank you very much for joining this conference and presenting an interesting paper. You've mentioned some limitations as to the research like a strongly limited group of students. What are your expectations about adding the group of students and/or representatives from a purely corporate environment? Would you expect to receive similar results to the test hypothesis?

Živilė Stankevičiūtė: Dear authors of the paper, I like the core idea of your research. As regards the current paper, please provide a discussion comparing your findings with previously published studies. For the future, do not limit the focus to students as the student might not have a clear view of career adaptability. Involve people from X or Y generations.

Christina D. Patitsa: Thank you for your feedback. adaptability. The studies above suggested that the entrepreneurial personality (individuals with strong openness, extraversion, and conscientiousness, but low levels of agreeableness, emotionality, and humility), relates positively with entrepreneurial intention, and will have a similar relationship with career adaptability. The study of Bacanli and Sarsikoğlu (2021) supported that personality traits play an important role in career adaptability. Their findings indicated that conscientiousness has the strongest and most positive relationship with career adaptability among other traits.

Martino Agostini: Dear team, the subject area is very interesting. I would suggest to investigate even how different HEXACO traits influence teamwork and collaboration in entrepreneurial settings. Understanding the interplay of various personality types in a team could be crucial for startup success.

Christina D. Patitsa: Thank you for your input. It is a good idea.

Magdi El-Bannany: Dear colleagues, the research topic is interesting — I would like to refer to some queries:

- How does the HEXACO model differ from the Big Five personality model, and why did the study choose HEXACO for examining its impact on entrepreneurial intention?
- Given that the study sample is comprised of more than half of the students from the business department of a public university in Athens, how does the study account for potential biases in the results, especially in terms of generalizing findings to a broader population?
- The paper mentions a divergence from the Big Five model and the theory of planned behavior. Could you elaborate on how the HEXACO model adds value or provides unique insights compared to these existing models in the context of entrepreneurial intention?

Khadija Al Arkoubi: Dear colleagues, your topic is fascinating, and I commend the use of the HEXACO personality model that includes humility and honesty besides the other traits known in the Big Five model. I have a couple of questions that may help clarify certain aspects of this research.

1. What specific components or dimensions of career adaptability were measured in the study? How do these components align with the HEXACO personality traits and contribute to entrepreneurial intention?
2. Given the limitations mentioned in the paper, what recommendations would you provide for future research in this area? How might expanding the sample to include students from diverse disciplines or considering demographic factors impact the findings?

Christina D. Patitsa: The HEXACO model was proposed by Ashton et al. (2004) and includes the five factors of the Big Five personality model, adding the "honesty/humility" factor. The model comprises the traits: honesty/humility, extraversion, emotionality, conscientiousness, agreeableness, and openness. Comparing the Big Five model to HEXACO, the main difference is honesty and humility. There is a plethora of studies examining entrepreneurial personality and its effects on organizational outcomes. The relationship between these two variables has been investigated thoroughly in numerous studies, a number of which addressed the role of personality in predicting the entrepreneurial intention of individuals, found to be a primary antecedent in much of the extant research. Brännback and Carsrud (2018) noted that the number of studies in leading entrepreneurship journals that involve HEXACO personality factors is rather scant.
(Brännback, M., & Carsrud, A. L. (2018). Where do we go from here? A research agenda for entrepreneurial cognitions. In M. Brännback & A. L. Carsrud (Eds.), *A research agenda for entrepreneurial cognition and intention.* Edward Elgar Publishing. https://doi.org/10.4337/9781784716813.00005)

The concept of career adaptability is a hierarchical construct encompassing four dimensions of resources called adaptabilities (curiosity, concern, control, and confidence). Entrepreneurship outcomes may be positively related to career adaptability as it allows individuals to better deal with the risks and uncertainties involved in entrepreneurship. Studies suggest that there are differences in entrepreneurship outcomes, as some dimensions are more or less important. The studies above suggested that the entrepreneurial personality (individuals with strong openness, extraversion, and conscientiousness, but low levels of agreeableness, emotionality, and humility), relates positively with entrepreneurial intention, and will have a similar relationship with career adaptability. The study of Bacanli and Sarsikoğlu (2021) supported that personality traits play an important role in career adaptability. Their findings indicated that conscientiousness has the strongest and most positive relationship with career adaptability among other traits. These findings may need to be validated in different contexts in future studies, avoiding the pitfalls described in this paragraph. Does not include variables that could potentially have an impact on the findings, such as some demographic factors (age, sex, prior studies, etc.).

HOW DOES A TELEWORKING ENVIRONMENT AFFECT THE RELATIONSHIP BETWEEN PERSONALITY, WELL-BEING, AND GRATITUDE?

by Christina D. Patitsa, Kyriaki Sotiropoulou, Venetia Giannakouli, Panagiotis, A. Tsaknis, and Alexandros G. Sahinidis

Dmitriy Govorun: Dear all, welcome to our conference and thank you very much for sharing your research on teleworking issues, personality, well-being and gratitude. You pointed out that the study examines the relationship between personality traits and the level of well-being of teleworkers. We understand that the level of well-being is quite subjective/personal understanding from the respondent. It may also be influenced by recent condition of the respondent while answering the questionnaire. To this point how do you measure the "basic" level of the well-being of the respondent?

Martino Agostini: Hi everyone. The practical outcome of this research suggests the necessity for organizations to implement more personalized management strategies for teleworkers. Adding a longitudinal component, which entails conducting an extended study to track changes and long-term outcomes, could prove highly beneficial in understanding the sustained effects of these strategies over time.

Christina D. Patitsa: We use a psychometric scale for well-being. The short version of the positive and negative affectivity schedule was used to measure teleworkers' negative and positive affect during the last week. The questionnaire consisted of two 10-item scales (positive affect and negative affect) containing adjectives to describe different feelings.

Venetia Giannakouli: Thank you for your feedback on our research study. We acknowledge your recommendations and suggestions for improvements by adding a longitudinal component that would give us an insight of how these parameters will affect teleworking environments in the future. Your insights are invaluable.

Magdi El-Bannany: Dear colleagues, the research topic is valuable — I would like to refer to some queries:

- How does the study position itself within existing theoretical frameworks related to teleworking, personality traits, and well-being? Are there specific theoretical perspectives or models that guided the development of the research?
- How does the study address the issue of causation versus correlation, especially when examining the relationships between personality traits, feelings, gratitude, and subjective well-being in the teleworking context?

- Given the reference to the limited studies on well-being and gratitude in a remote work environment, how might the current study contribute to filling this research gap? How can the findings be integrated into the broader literature on teleworking and well-being?

Christina D. Patitsa: There are still limited studies examining personality traits related to telework and even less research work on the relationship between personality and teleworker well-being. Recent research also suggests that well-being is associated with gratitude, which plays a critical role in the workplace for achieving work goals and organizational attitudes. The present study examined whether there is a relationship between subjective well-being and gratitude during telework and whether there is an indirect relationship between personality traits and gratitude via positive and negative feelings, but the results were not statistically significant. Many studies demonstrated the positive effects of gratitude in the workplace in terms of performance, flexibility, job satisfaction, work balance, and well-being, further research on this topic is, also, considered essential. Organizations seeking to enhance the positive effects of telework should focus their efforts on the relationships between subjective well-being, personality, and gratitude. However, it is suggested that further studies confirming that personality traits influence remote employees' well-being in a telework environment are essential for developing a successful and more complete business strategy for organizations.

CYBER-ATTACKS AND EARNINGS MANAGEMENT IN THE PUBLIC SECTOR

by Luca Galati, Margherita Smarra, and Marco Sorrentino

Dmitriy Govorun: Dear Luca Galati, Margherita Smarra and Marco Sorrentino, thank you very much for presenting an interesting paper on earnings management and cyber security. Cyber security is crucial to save the information, make it consistent and reliable to disclose. It is especially important when we talk about sound mechanisms of control and audit. You mentioned that you plan to employ Benford's (1938) law-based approach for highlighting the EM activities that may be affected by cyber-attacks. However, the approach will define the dataset and/or operations which are not typical distribution and may be affected by hand-made or other adjustments not related to cyber-attacks. May you please share how you expect to use the approach to outline the dependency of EM on cyber attack?

Martino Agostini: Hi team, the area of investigation is super interesting and super challenging at the same time. Understanding the impact of cyber-attacks on earnings management requires a nuanced approach that considers the interplay between immediate financial impacts, long-term reputational concerns, regulatory responses, and the overall integrity of financial reporting. It could be challenging to collect data on unlisted public sector firms that have experienced cyber-attacks. This could involve public records, cybersecurity reports, and financial statements.

Luca Galati: Dear Dmitriy, thank you very much for your comment. Indeed cybersecurity is essential for protecting the integrity and reliability of financial and non-financial information.

We plan to use Benford's law as our research group did in a couple of previous works examining the impact of elections (Capalbo et al. 2023) and appropriation systems (Capalbo et al. 2024) on earnings management activities in public sector firms.

We defined the election year financial statement as those that are published just before elections and refer to the preceding solar year. In this way, we were able to measure the difference in earnings management activities during "electoral" seasons and normal (more tranquil) periods.

Similarly, in this research, we propose to look at the years in which a company received a cyber attack and compare the EM activity with normal years. Benford's law has been proven to be a useful analytical tool to spot red flags of accounting data manipulation by the literature. This method is also unaffected by other potential influencing factors (Capalbo et al., 2024). For these reasons, we believe our approach can clearly identify differences in data manipulation caused by cyberattack events.

I am happy to provide more information regarding the approach we used in our previous projects if needed.
(Capalbo, F., Galati, L., Lupi, C., & Smarra, M. (2023). Local elections and the quality of financial statements in municipally owned entities: A Benford analysis. *Chaos, Solitons & Fractals, 173*, Article 113752. https://doi.org/10.1016/j.chaos.2023.113752
Capalbo, F., Galati, L., Lupi, C. & Smarra, M. (2023). Proportional appropriation systems and financial statement quality in municipally owned entities: Empirical evidence from Italy. *Journal of Public Budgeting, Accounting & Financial Management*. Advance online publication. https://doi.org/10.1108/JPBAFM-01-2023-0015).

Dear Martino, many thanks for your genuine interest in our research. The aspects you highlighted are essential for understanding the real effect of cyber attacks on companies. The literature finds a significant decline in reputation and stock prices (Kamiya et al. 2021), as you mentioned.

To address the issue of data collection we were lucky to have received granted access to a proprietary dataset that identifies data security incidents for all types of Italian companies (listed and unlisted firms). They collected data from a series of reliable publicly available sources, such as, for example, public announcements of security breaches made by the company itself or directly by their clients.

We are keen to investigate possible data errors but so far this is the most efficient, in terms of time and costs, and reliable way to tackle your concern.
(Kamiya, S., Jun-Koo, K., Jungmin, K., Milidonis, A., & Stulz, R. M. (2021). Risk management, firm reputation, and the impact of successful cyberattacks on target firms. *Journal of Financial Economics, 139*(3), 719–749. https://doi.org/10.1016/j.jfineco.2019.05.019).

Marco Venuti: Dear colleagues, congratulations on your valuable research. I read in your paper that "the study will also consider the role of corporate governance in mitigating earnings management practices in the context of cyber-attacks". I would like to ask what corporate governance mechanisms you intend to examine in your research.

Magdi El-Bannany: Dear colleagues, the research topic is important — I would like to refer to some queries:

- How can the findings contribute to the understanding of the impact of cyber threats on unlisted firms in the public sector?
- How can the findings of this research inform the development of strategies for both policymakers and managers to mitigate the negative consequences of cyber-attacks on financial performance?

- How do you plan to communicate the research findings to policymakers, regulators, and managers to ensure practical implementation of the insights gained?

Andrea Fradeani: Dear authors, the topic of your research is interesting. Your extended abstract refers to a sample of "Italian unlisted firms in the public sector": I would like to know more about the characteristics of this sample.

Luca Galati: Dear Andrea, thanks for your interest in the sample characteristics. Our data contains all the attacked Italian companies and we focus on those owned by the state at any level (e.g., national, regional and municipal) to understand the impact on "socially relevant" firms.

Adam Samborski: Dear Luca, Margherita and Marco the issues you address in your work are extremely interesting and important. The threat of cyber-attacks in the modern world is increasing. The public sector is also exposed to such attacks. It is often much less prepared for such attacks than large corporations. The link between cyber-attacks and profit management is also important. However, I do not know if we can directly link these two aspects. Firstly, no one wants to boast that they have just been the victim of a cyber-attack, nor do they boast about what damage has been done to them. Secondly, the damage that results from cyber-attacks often reveals itself after some time. In addition, profit management is influenced by many factors that are often immeasurable. Hence, I think that the issue you are addressing is extremely interesting but also very difficult to investigate.

Luca Galati: Dear Adam, thank you very much for your interesting thoughts on our work.

You are correct that the issue of the impact of cyber attacks on earnings management activities in state-owned entities is intriguing and simultaneously hard to tackle.

As you mentioned, the management is incentivised to not disclose that their company has been a victim of a cyber incident, and is obviously even less prone to disclose the magnitude of the damage of this attack. For the same reasons, we argue that managers of attacked firms are incentivised to hide such damaging events by manipulating accounting data. This could mean that executives are willing to pump their credits or earnings even though they lost clients as a consequence of their deteriorated reputation. It would be interesting to investigate possible losses (due to cyber-attacks) refinements.

Thank you again for helping us think about this issue.

Dear Marco, many thanks for your interest in our work. We were interested particularly in examining the impact of state ownership on the likelihood to manipulate accounting data upon a cyber threat.

We are in the process of developing the research design for a full draft and are open to receiving any suggestions regarding this matter.

Dear Magdi, thanks for reaching out and showing interest in our research. Your questions are important to the study and we believe these might help improve the paper.

The findings would help us understand whether managers of state-owned entities have incentives to manipulate accounting numbers as a consequence of the reduced reputation. This, in turn, implies that on one hand regulators should implement a stricter policy for cyber incidents disclosures to prevent any warranted actions around those damaging events, and, on the other hand, that auditors should pay close attention when scrutinising financial statements of state-owned entities around the time they have been attacked.

We hope to disseminate soon our findings to policymakers and a larger audience through newspaper articles and then to the academic community through international conference presentations and peer-reviewed publications.

AN EXPLORATION OF SOFT SYSTEMS METHODOLOGY FOR ENHANCED CONTAINER TERMINAL PRODUCTIVITY

by Dineo Faith Mazibuko and Cecile Naomi Gerwel Proches

Dmitriy Govorun: Dear Dineo Faith Mazibuko and Cecile Naomi Gerwel Proches, appreciate your participation and presentation of your findings using the SSM approach for terminal productivity.

You mentioned that the conceptual model "enabled identification of required activities needed to improve marine, terminal and hinterland activities within the port and terminal-owned system". You used CATWOE analysis in your work. It usually relates to stakeholder perspective in terms of identifying them and working with their interests. Are there any other stakeholders in your conceptual model except those who were in slides and related directly to port infrastructure?

Dineo Faith Mazibuko: Dear Dmitriy, thank you for your participation in the research conducted using soft systems methodology for enhanced terminal productivity. There are various stakeholders involved in container terminal operations including customs, cargo owners (mining sector, retail, agriculture, etc.), clearing and forwarding agents, stevedores, port regulators and government departments such as Department of Public Enterprises, Department of Transport, etc. However, the scope had to be limited to players who are engaged in daily activities of port operations for improved productivity.

Martino Agostini: Dear team, it sounds like a great application of soft system methodology. I would consider even maritime decarbonization that presents both challenges and opportunities for container terminals, requiring them to adapt operationally, technologically, and strategically to a more environmentally sustainable model.

Dineo Faith Mazibuko: Dear Martino, thank you for your interesting comment on the maritime decarbonization to ensure environmental sustainability model. I fully concur with your comment. It is necessary for ports to look at opportunities for improving energy efficiency within their processes to limit global temperature rise that seem to impact operations.

Magdi El-Bannany: Dear colleagues, the research topic is interesting — I would like to refer to some queries:

- How do the challenges identified relate to the overall competitiveness of ports, especially considering the World Bank's ranking of South African ports?

- How did the CATWOE analysis contribute to identifying the system structure, transformation process, and interactions within the container terminal system?
- How can the enhancement strategies identified in the study be practically implemented in container terminals to improve performance?

Dineo Faith Mazibuko: Dear Magdi El-Bannany, thank you for your participation in this study and appreciate the queries.

The CPPI 2021 was developed based on total port time to ensure that the ranking reflects as closely as possible actual port performance, whilst also being statistically robust. The factors identified from marine, terminal and hinterland dimensions in the study contributing to the inefficiencies have a direct impact on the total port time.

The CATWOE analysis has six elements (customer, actors, transformation, worldview, owners and environmental considerations) that were unpacked for container terminal operations with the research participants. The CATWOE analysis allowed key customers, main actors and owners to be identified for the key problem being experienced. This method also enabled the process of transformation (improved turnaround time) to be outlined. Defining the worldview and explaining the environment was critical to see the impact of the resolution of the problem and the environment in which the problem exists. Key themes emerged from the various stakeholders as the CATWOE analysis was unpacked. Through stakeholder engagement and mapping, the system structure and process of transformation corresponding to a system for the improved ship turnaround time at the container terminal was identified.

The enhancement strategies identified in the study are actionable items that can be implemented by the port authority, terminal, inland depots and rail division.

NON-ECONOMIC VARIABLES RELATED TO ECONOMIC GROWTH

by Arton Hajdari, Artan Hajdini, and Shenaj Hadzimustafa

Basma Bchennaty: Dear researchers, I appreciate your paper, which presents compelling empirical data and analysis. Wishing you continued success in your work.

Pongsakorn Limna: The research conducted in this paper is a valuable addition to the field of economics, particularly in understanding the role of non-economic factors in economic growth. With enhancements in clarity, contextual depth, and practical implications, this study can significantly influence how policymakers and economists view and approach economic growth strategies.

Arton Hajdari: Thank you, dear Dr. Basma Bchennaty, we really appreciate your comment, which encourages us to continue with our studies in the respective field.

Dear Pongsakorn Limna, thank you very much! You clearly understood the aim of our research. We really appreciate your comment.

Dmitriy Govorun: Dear colleagues, welcome to the conference discussion. Thanks for your paper on non-economic factors as influencers on GDP. You mentioned the non-economic variables and your findings regarding the relationship with the GPD. Have you studied the structure of GDP in a particular country and/or does it have an influence on expected relationships between variables?

Arton Hajdari: Dear Dmitriy Govorun, thank you for your question! As for the economic growth, we considered the GPD per capita of the 151 countries involved in the study. The independent variables were four, all of the four non-economic variables. We also measured the relationship of the independent variables to each other, to decide the VIF values, which were not severe to discredit the findings of the research. Data were cross-sectional, so we do not pretend to report the causality. But still managed to report reliable findings on the relationship between the variables involved in the empirical examination. By the way, we were not dealing with the structure of the GDP in particular countries.

Alexander Kostyuk: Thank you for your insightful study. I see that you have confirmed that human development is the most impactful factor in facilitating the growth of GDP per capita. It seems that it would be useful to get insight into this issue and find out what elements of human development (education, skill, labour market, etc.) are the most important.

Arton Hajdari: I see your point, dear Alexander Kostyuk. That is an important suggestion of yours that we might be considering in future studies. By the way, this empirical study of ours measured human development based on the Human Development Index of the United Development Programme. But, since the impact of such variable turned out to be so significant, future studies should consider finding out which elements of human development contribute the most — always depending on the accessibility and availability of such data — which one should underline is not easy to collect especially for a large number of countries. Thank you for your beneficial comment!

Alexander Kostyuk: Thank you for details, Arton. From the point of view of the applicability of the study, it seems that the decomposition of the human development index (I think it is possible to do) could be very useful.

Keith Harman: Having taught and worked with corporate strategy and policy as regards information resources it is interesting to see the same "frame" used as regards economic growth strategies. Dear Arton, thanks for your insight into the Human Development Index in relation to the study.

Arton Hajdari: Thank you, dear Keith Harman! Your comment is much appreciated, especially keeping in mind the background experience you mentioned.

Keith Harman: Hi Arton, you are very welcome. I enjoy this conference more than any others I have attended because of the adroit use of technology and the exciting research colleagues like you are doing.

Arton Hajdari: Thanks once again, dear Keith Harman! You are right, the format of this conference is unique. It gives the possibility to interact and benefit from each other.

Keith Harman: To me, this conference provides proof that an online conference can have as much value and dialog as a ground-based conference.

Magdi El-Bannany: Dear colleagues, the research topic is important — I would like to refer to some queries:

- What motivated the focus on non-economic variables, such as the absence of corruption, fragility of human rights and rule of law, human development, and peace, in relation to economic growth?

- How do these non-economic variables contribute to the overall sustainability of economic growth?
- Were there any unexpected or surprising results that emerged during the analysis?
- How did the study ensure the reliability of information obtained from international institutions, and were there any challenges or limitations in using secondary data?
- How might policymakers interpret and apply the results of this research to enhance overall national development?
- Are there any variables that were not included in this study but could potentially impact economic growth?

Arton Hajdari: Dear Magdi El-Bannany, your questions are valuable ones and make it clear to us that you read our paper carefully. First of all, we wanted to focus on the variables that are non-economic since we thought there was a lack of empirical studies in the respective direction. All four non-economic variables involved were found to be statistically significant; three of them with positive impact on economic growth and the fourth one, the fragility of human rights and the rule of law, was found to have a negative impact on economic growth. What is important for all of the four independent variables is they do not violate the objective of sustainability, since they do not have a negative impact, for example, on the environment. We would not say the results were surprising, since they fulfilled our hypotheses, but their level of significance was not expected to be in such a manner. All the data were secondary, but we think they are from credible international institutions that provide reliable data (you may find the information on such institutions in the references and throughout the text). The policymakers should take our findings seriously as the sample of the study, 151 countries involved, proves the credibility of the results. Indeed, to make improvements on the variables that we study, a longer time is needed for countries, but they have to go in that direction as soon as possible if they are to achieve sustainable economic growth. As per variables not included in the model, we would say there might be such, but we still think the variables we included were the most important ones when it comes to non-economic ones. Hopefully, I addressed all your crucial questions.

ORGANIZATIONAL CULTURE IN THE GREEK PUBLIC SECTOR: EMPIRICAL EVIDENCE AND STRATEGIC GOVERNANCE IMPLICATIONS

by Dimitrios Kirmikiroglou, Paraskevi Boufounou, and Kanellos Toudas

Živilė Stankevičiūtė: Nice idea. Waiting for the results to be provided. Please include literature on innovation management in the public sector. Try to find an answer to how organizational culture is related to national culture or employees values and attitudes.

Dmitriy Govorun: Dear Dimitrios and colleagues, thanks for participating with your ideas on organizational culture. Your findings seem to be interesting as to expectations of employees and recent situations. What is also interesting is whether you compared similar expectations on the corporate/private market. I mean if there is a different approach for private companies and their personnel compared with the public sector. Thanks for your comment in advance.

Paraskevi Boufounou: Dear Živilė, thank you for your great suggestions. We will try them.

Dear Dmitriy, thank you for your comment. The same approach has been used to assess the culture in private sector organisations/ministries and also in private sector companies. Based on the literature it is especially used in times of changes, i.e., when major reforms take place or M&As take place and the resulting organisation/company wants to portray its prevailing culture and the culture its employees would like to prevail in 5 years time. A relevant publication that uses OCAI to compare private and public sector culture in different sectors in Greece is the following:
Boufounou, P., & Argyrou, M. D. (2022). Changing the organizational culture to transform the economy: The case of Greece. *Frontiers in Research Metrics and Analytics, 7*(Special Issue: Innovation, Formal and Informal Institutions), 1–14. https://doi.org/10.3389/frma.2022.1050544

Magdi El-Bannany: Dear colleagues, the research topic is valuable — I would like to refer to some queries:

- Why was the Ministry of Foreign Affairs chosen as the focus of the study, and how do recent reforms in this ministry align with the need for organizational culture change?
- How do the challenges and dynamics of evaluating organizational culture in public organizations differ from those in private companies?
- How can the results of this study inform policymakers in addressing critical political, economic, and social challenges, such as sustainability, globalization, digitization, administrative development, and geopolitical tensions?
- How can the findings be practically applied within the Ministry of Foreign Affairs, and are there actionable steps that can be taken to facilitate the desired cultural change?

Khadija Al Arkoubi: Dear colleagues, your research topic is relevant considering the challenges faced by public organizations globally. I have the following questions for you:

1. Could you provide more details on the aspects of the hierarchy culture that currently prevails in the Greek Ministry of Foreign Affairs? How does this culture manifest in the day-to-day operations and decision-making processes?
2. In light of the desired shift in organizational culture, what challenges do you anticipate in implementing these changes, especially considering the bureaucratic nature of public organizations and the historical context of Greece?

Adam Samborski: The study of organisational culture is extremely important and interesting. It is a system of shared values with adaptive and integrative functions. This is because it allows the organisation to adapt to its environment and integrates the members of the organisation around shared values. Organisational culture also changes. However, it does not change as quickly as the organisation's strategy or other internal documents can be changed. Nevertheless, I find the issue you have raised extremely interesting and cognitively intriguing.

Loai Ali Alsaid: Dear authors, thank you for your manuscript. It is really interesting to address organisational culture in the public sector from an ambitious institutional context such as the Greek one. I advise you to think about the macro-level political aspects of the country. This will be useful to clarify the institutional dynamics between macro-level state politics and public sector culture. It will also help to understand how and why corporate governance practices have been shaped and re-shaped at the organisational micro-level to meet political requirements. I wish you all the best in this interesting study.

Paraskevi Boufounou: Dear Khadija, thank you very much for your very interesting points. Please find below the relies on the issues raised:

1. The currently prevailing culture of hierarchy is characterized by bureaucratic and time-consuming processes with little or less space for initiatives.
2. Indicative measures that could be taken to transform the prevailing culture are presented on page 18 of our presentation, i.e.:

- The establishment of a 360-degree evaluation system for all, i.e., their evaluation by their subordinates, partners and superiors.
- The planning of professional development programs that enhance internal mobility and interdepartmental communication.
- The establishment of research programs that help to identify staff attitudes and ideas. Findings should be implemented by planned working groups.
- Involving staff in all stages of strategic planning.
- Developing programs to facilitate and increase staff team spirit.

Dear Loai, thank you for your fruitful comments. It is really a great challenge for Greece to transform the prevailing culture in the public sector. Since Greece signed the first Memorandum in 2010 until now, the country is undertaking a series of major reforms affecting both the private and the public sector. Therefore, corporate governance practices have been shaped and keep on being re-shaped at the organisational micro-level of both the private and the private sector to adapt to political requirements. The whole country effort is aligned towards meeting this task.

Dear Magdi, thank you for your valuable comments. Please find below the reply to your queries:

1. The Ministry of Foreign Affairs was chosen as the focus of the study due to the reforms that were imposed on its operation during 2019–2022, namely the introduction of a new Law 4781/2021 on New Economic and Public Diplomacy that seriously transformed its operation; the transfer of "Enterprise Greece", of the "Credit and Export Agency" and of the "Communication Department" to the Ministry of Foreign Affairs and the introduction of Law 4622/2019 that created a new environment in the Greek Public Administration and led the transition to the "Executive State Administration".

2. Challenges and dynamics of evaluating organizational culture in public organizations differ from those in private companies, as there are still many differences in public and private sector corporate governance policies. For example, evaluation has recently been introduced by Law in Greece.

3. A case study for evaluating the results of this study for informing policymakers in addressing critical political, economic, and social challenges, such as sustainability, is presented in the following publication:

Boufounou, P., & Argyrou, M. D. (2022). Changing the organizational culture to transform the economy: The case of Greece. *Frontiers in Research Metrics and Analytics, 7*(Special Issue: Innovation, Formal and Informal Institutions), 1–14. https://doi.org/10.3389/frma.2022.1050544

4. Indicative measures that could be practically applied are, i.e.:

- The establishment of a 360-degree evaluation system for all, i.e., their evaluation by their subordinates, partners and superiors.
- The planning of professional development programs that enhance internal mobility and interdepartmental communication.
- The establishment of research programs that help to identify staff attitudes and ideas. Findings should be implemented by planned working groups.
- Involving staff in all stages of strategic planning.
- Developing programs to facilitate and increase staff team spirit.

THE ROLE OF THE ULAMA RELIGIOUS AUTHORITY IN THE GOVERNANCE OF ISLAMIC BANKS

by Luca Federico Battanta, Manuela E. B. Giolfo, Giuliano Lancioni, and Francesca Magli

Salem Alomairi: Dear authors, your paper has a clear goal, looking at how religious leaders work with banks in Morocco. It's good that you want to cover their history and their current role. Maybe you could talk a bit about how technology like online banking is changing things. What do you think is the biggest challenge for the Ulama when dealing with modern banking?

Luca Federico Battanta: Thank you for your interest in our work. That sounds like a very good suggestion. This aspect you mention will be part of an Italian national research project on ontologies, where we will use artificial intelligence and machine learning techniques. What is changing as banking institutions modernize is the increasingly pervasive introduction of fintech and regtech.

Transactions are speeded up and it becomes difficult to do manual compliance checking consequently action will need to be taken to make sure that Ulama guidance can be implemented automatically. This is what we are working on in our research project composed of the authors of the paper which is composed of economists but also linguists and computational linguists. We remain available for any further information.

If you need some more detailed information on our project feel free to contact us. Thank you for your interest.

Dmitriy Govorun: Dear Luca, thanks for sharing the light on Islamic banking and the influence of religion and culture on corporate governance traditional issues. You've pointed out the role and place of Ulama in Morocco. Looks like some sort of hybrid structure. "...the body in charge of financial supervision and ethical control of the entire sector; the conformity procedure for financial products". How does it deal with the influence on governance mechanisms in banks? Is it more close to the case with foundations/statutory auditors or is it a unique approach?

The next point is what part of the Moroccan approach may be seen as an interesting solution for traditional supervision structure?

Luca Federico Battanta: Thank you for your interest in our work. Your suggestion is very interesting as are your questions.

Morocco's idea was precisely to create precisely a hybrid structure of control both internal to banks and compliance of financial products offered to the market. The system in fact is hybrid. Traditional banks are the bulk of it, and only in the last few years has Morocco given a big push to the Islamic finance sector. What the Kingdom has tried to do with the Shari'a boards and the greater involvement of the Ulama has been precisely to incentivize Islamic finance more by trying to include that part of the population that is unbanked for ethical and religious reasons. The Ulama are helpful in certifying a wide range of products offered by Moroccan banking institutions.

However, there are critical issues that will need to be resolved in Morocco as in other countries such as Italy with which we are collaborating on a national research project.

Manual compliance has major limitations in an increasingly fast-paced financial world given by fintech. Our project is to engage both regulators and regulated entities both in Islamic-majority countries and in the West where there is a need for products subject to specific ethical or religious compliance regimes.

The automated solutions for compliance we are studying use artificial intelligence and machine learning. We remain available for further details about our project and possible collaborations.

Alexander Kostyuk: Dear Luca, you mentioned several issues that are considered by you critically. For example, you wrote that manual compliance has major limitations in an increasingly fast-paced financial world given by fintech. What limitations do you mean in particular?

Luca Federico Battanta: Dear Alex, thank you for your question the issue lies in the fact that with Islamic or traditional fintech you are dealing with transactions that are executed in real-time and therefore you need to determine, for example, whether there are problems with money laundering immediately. This is why you need to speed up compliance projects as much as possible.

Magdi El-Bannany: Dear colleagues, the research topic is interesting — I would like to refer to some queries:

- What prompted the creation of the Council of Participatory Finance Commission in 2015, and what role does it play in ensuring compliance with Islamic precepts in financial products?
- In what ways does the Ulama Council promote Morocco's new Islamic finance sector, as mentioned in the text?
- How does this reporting mechanism contribute to accountability and transparency within the Moroccan financial system?
- How has the involvement of the Ulama Council in the financial sphere evolved over time, and what impact has it had on governance within the Moroccan financial system? Are there specific challenges or successes in the governance structure that are noteworthy?

Luca Federico Battanta: Thank you for your appreciation of our work. We will gladly answer your questions.

The purpose is related to the supervision of Islamic finance products.

The Council promotes in order to give a proper classification of narrow products and supervisory activities.

The contribution lies in the fact that the government has decided to promote Islamic finance products to reach those segments of the population not yet reached by traditional finance systems in this certification and the role of the Ulama is very important in the Moroccan monarchy. One should not forget Morocco's political history and the fact the relevance of the Ulama themselves in the political and religious context of the country.

The involvement of the Ulama never accelerated as soon as the Moroccan government decided to push the Islamic finance sector more, which, however, is not yet as developed as the traditional finance sector. This began about 10 years ago. In contrast, the opening of the Moroccan financial system dates back to the early 2000s. Therefore, we can assert that the Moroccan government opened up Islamic finance at a later stage. The challenge for the coming years lies both in the technological evolution of the Moroccan financial system but also in the competitiveness and dynamism of the Islamic financial system in Morocco.

Khadija Al Arkoubi: Dear Dr. Battanta, I find your topic extremely relevant and I feel impatient to read the full paper and find out more about the role of Ulama in the governance of Islamic Banks in Morocco. Below are a few questions I have:

The composition of the Participatory Finance Commission with nine permanent members who are specialists in Shari'a and fiqh is intriguing. How has the expertise of these specialists shaped the development and regulation of Islamic financial products in Morocco? The mandatory inclusion of a Shar'a board in all Moroccan banking institutions, whether participatory or conventional, is a unique aspect. How has this requirement impacted the day-to-day operations and decision-making processes within these financial institutions? Does it have any impact on other financial institutions in Morocco, including Bank Al Maghreb? The annual reporting requirement of financial institutions to the Ulama board is interesting. What kind of information do these reports typically contain, and how does the Ulama board utilize this information to ensure compliance with Islamic principles? Your abstract mentions that the role of Ulama is present across the Islamic world. Are there notable similarities or differences in the role and functions of the Ulama in Morocco compared to other Islamic countries? How about in other non-Muslim countries? What is the future outlook for Islamic finance in Morocco based on current initiatives and trends?

Luca Federico Battanta: Thank you for your appreciation of our work and the topic we chose.

Your suggestions are extremely helpful and we thank you. In a completely transparent way, we tell you that we do not have definitive results on some of the questions you ask precisely because the writing of the paper is not yet complete. What you read at the top is an extended abstract. Those would be interim results that we prefer not to disclose for now. There is another reason: these results are related to a research project that also has some basis at the industry level regarding automated Islamic financial compliance. But we can confirm to you that there is clearly an impact both on the day-to-day operations of the bank and on regulation and supervision. For the reports you can read the Moroccan central bank's *Rapport annuel sur la supervision bancaire* and the attached notes where you can find interesting insights. As you have surely noticed this is an extended abstract so some of the themes you have recalled will be further explored in a paper including the comparison of the role of the Ulama in Morocco and Saudi Arabia. If you are interested in the development of our research we can provide you with a site where we will periodically upload the results. We thank you again.

THE INTER-RELATIONSHIP AMONG CORPORATE GOVERNANCE, ARTIFICIAL INTELLIGENCE, AND INNOVATION

by Raef Gouiaa and Run Huang

Dmitriy Govorun: Dear colleagues, thank you very much for sharing your ideas on AI and innovations. It is interesting to read your findings on the influence and dependencies of CG mechanisms on innovations and AI. You state that "This study shows that an overly concentrated ownership structure and a high number of directors have a negative impact on innovation progress and the development of AI in multiple industries." Is this true for various types of shareholders? I mean is there any difference between the institutional shareholder in a concentrated ownership setting or an individual shareholder?

Run Huang: Dear Dmitriy, thanks for your point. Actually, the companies in our sample are ranked top 10 in each industry, and all of them are made up of institutional shareholder structure. Therefore, our findings are limited to concentrated ownership settings for institutional shareholders, without findings of the individual shareholders.

Loai Ali Alsaid: Dear authors, thank you for your manuscript. It is really interesting to study the interrelationship between corporate governance, AI, and innovation. However, I advise you to be clear about your theoretical contributions to the literature. It may also be better to explain your research, practical, and social implications of your empirical results. I wish you all the best in this enjoyable study.

Run Huang: Thank you for your appreciation of our work and the topic we chose. Your suggestions are extremely helpful and we thank you. To be honest, our full paper includes more literature review. What you read at the top is an extended abstract, due to the limited contents, we don't have enough space to cover more literature. We also appreciate the other issues suggested by you, like social and practical implications. We would like to explore and improve more on these points for our full paper. Thanks so much for your suggestions again!

Chan Du: Dear authors, your study on the impact of individual components of corporate governance on AI and innovation is very interesting. I have a question regarding the measures of AI application index and innovation. In Section 3, research methodology, you provided examples of words for AI (e.g., big data, intelligence, authentication, automation, integration, digitization, virtual, algorithm, cloud computing, blockchain, machines learning, integration, etc.). However, I could not find the words that you defined for innovation in the paper. So, I wonder if it is possible to state the words for innovation and the difference between the measures of AI and innovation. A correlation between AI measures and innovation measures may be helpful. I also wonder if endogeneity issue needs to be considered as AI also affects corporate governance.

CORPORATE GOVERNANCE: THE ARTIFICIAL INTELLIGENCE'S CHALLENGE — A RESEARCH PROJECT

by Andrea Fradeani

Basma Bchennaty: Dear Andrea Fradeani, the topic of your paper is contemporary and attractive. I am particularly interested in the intersection of corporate governance and artificial intelligence.

Andrea Fradeani: Thank you Basma for your considerations. In fact, I believe that the impacts of artificial intelligence on corporate governance represent a really important and undiscovered issue.

Živilė Stankevičiūtė: Dear authors, I like your research idea. Your idea refers to revealing three types of information: the degree of interest and involvement of the company with respect to AI, the main applications of AI within the framework of its CG and the main pros and cons found. I suggest to include and ask also about the added value of the application of AI. What value can businesses generate with AI applications? What value can be created for employees in terms of their well-being? What value could be created for top managers and for customers?

Martino Agostini: Dear Andrea, the subject area is quite intriguing. I would suggest exploring AI and the role of the board of directors.

Andrea Fradeani: Thank you Živilė. I appreciate your suggestion. Trying to measure the value created by the application of artificial intelligence is an interesting and complex challenge, even more so if declined outside of the canonical economic-financial performance (you were also referring to social aspects, such as well-being of employees).

Thank you, Martino. I think that the theme you proposed can be investigated in various directions: the role and factors that can push the board of directors (BDs) to promote the adoption of artificial intelligence (AI); how AI can support BDs in its activities and choices; whether AI can support in the choice of BDs components; even, if AI can replace BDs. There are, of course, also legal issues and limitations.

Dmitriy Govorun: Hi Andrea and all! Welcome to the conference. I would like to thank you for sharing ideas on how you plan to investigate the Italian case of AI and CG connection. Actually, AI, CG, blockchain and related innovations are about or near transparency, reducing risks and in some cases transaction costs. So, basically, what is your vision/opinion on who should be a trendsetter in pushing the idea of AI implementation?

The next question was also mentioned by colleagues earlier. You gave an interesting answer about whether AI can replace a BD. What are your ideas on that? Should we expect to have enough legal ground that AI as an algorithm will reduce or exclude people from the decision/making or decision control?

Andrea Fradeani: Thank you Dmitriy for your considerations.

I believe that today ideas about AI are polarized: on the one hand, there are those who see it as an absolute danger to be avoided, on the other hand, there are those who consider it the solution to every problem. Obviously, I do not agree with the two extreme solutions, I believe that at the moment it is necessary to evaluate specifically the pros and cons of the single applications.

I believe that the push for a reasoned adoption of AI, aware of the opportunities but also of the risks, can come not only from operators (managers, consultants, etc.) but also from the academic world.

I come to the topic of BDs by AI. Although I do not believe it will happen in the short term, it is an issue that needs to be addressed. I don't have certainties, but I ask questions: who and how will develop the algorithms? Will the algorithms have to be made public (to investors, banks, and the market in general)? Who will be responsible for the management errors made? What role will the supervisory bodies play? Will the latter also be replaced by AI? Drawing a parallel with autonomous driving, will it be necessary, how and for how long "to keep human hands on the steering wheel"?

With this, I do not want to minimize the advantages of AI, which will have to be measured in some way concretely, but I would like to emphasise that AI will be a positive phenomenon (also in terms of maximizing the benefit/cost ratio) if its development and application will take place within the framework of precise rules and limits capable of taking into account (and minimizing) ethical issues, legal issues, etc.

Marco Venuti: Dear colleague, congratulations on the important research. In your research, do you plan to address the role of the learning machine in terms of AI applied to corporate governance issues? If you decide to address the role of machine learning in AI, I suggest you address the different types of machine learning and their limitations (biases).

Andrea Fradeani: Dear Marco, thank you for your considerations. Yes, the idea is to consider the application of AI in a broad sense and therefore also with reference to machine learning: I will carefully evaluate your suggestion.

Magdi El-Bannany: Dear Andrea, the research topic is important — I would like to refer to some queries:

- What prompted the characterization of artificial intelligence as an "epochal challenge", and how is it perceived within the accounting and business administration field?
- How does the literature review inform the subsequent phases of the research project?
- In offering reflections on the possibilities of artificial intelligence to improve corporate governance, what considerations will be given to the ethical, regulatory, and societal implications?
- Are there particular aspects of the Italian listed companies' landscape that may influence the generalizability of the research?

Andrea Fradeani: Dear Magdi, thank you first of all for the interesting considerations.

With reference to the first question, the idea that AI represents an "epochal challenge" is the result, first of all, of the intuitive perception of its best-known uses (I refer, for example, to generative AI, applied to the audio/video/photographic sectors, translation, autonomous driving, etc.) as well as to the four aspects that I mention in the introduction of the research project ("the universality of its applications, the pervasiveness of its effects, the speed of its development and its ethical implications").

Less clear, at least at present, is the perception of AI in the context of accounting and business administration (ABA) which, to be honest, I imagine is very much affected by the potential and results that have occurred in other areas such as those mentioned above. It is no coincidence that one of the goals of my work is to try to contribute to understanding the perception of AI in the context of corporate governance (CG).

On the role of literature for the development of research: in the second paragraph of the research project, I indicated three phases of analysis and their respective expectations. With reference to the last two phases, the goal is to understand the state of the art of AI research in both ABA and, the most interesting aspect, CG. This is also to theoretically identify the possible and most promising applications of AI to the CG, so as to compare them with those that will emerge from the field analysis (questionnaires referring to the sample of Italian listed companies).

Coming to the third question: the ethical and social implications are central. It is precisely regulation, which I believe is necessary, that will have to ensure that the development and applications of AI take due account of this.

With reference to the last question, the Italian context places limits on generalization, both in terms of the characteristics and number of listed companies and with reference to the regulatory and social context. My intention, in future works and with the collaboration of other colleagues, is to try to understand and overcome — by comparing it, for example, with contexts such as those of the USA, ASIA, Middle East — the problem you mentioned by trying to understand the (possible) differences and their motivations.

Khadija Al Arkoubi: Dear Dr. Fradeani, thanks for this insightful contribution. I find the three-phase structure of the literature review commendable, as it allows for a systematic exploration of AI, its applications in accounting and business administration, and its specific relevance to corporate governance. Also, acknowledging the interdisciplinary nature of AI by involving fields such as mathematics, computer science, law, psychology, and philosophy is a thoughtful approach. It reflects the diverse dimensions that AI encompasses and how it intersects with various domains of knowledge. I have a few questions for you:

1. How does the literature review plan to address ethical considerations associated with AI applications in corporate governance, especially considering the potential for loss of control and the fear of being controlled by AI?
2. Given the acknowledgment of AI's rapid development, how does the review plan to assess the currency of the literature and ensure that it reflects the latest advancements and challenges in the field?
3. Is there consideration for integrating case studies or practical examples in the review to illustrate how AI has been implemented in real-world corporate governance scenarios?

Adam Samborski: Dear Andrea, the issues you address are extremely interesting and topical. Artificial intelligence is basically everywhere. It assists our decision-making processes, helps us process information, generates alternative solutions to problems and shows us the possible consequences of specific decisions. So it is obvious that we are addressing the issues of artificial intelligence in the context of CG. It is developing so rapidly that our findings made today may no longer be relevant tomorrow. Hence, it is of utmost importance how we will explore the process of how artificial intelligence affects different areas of CG function.

Andrea Fradeani: Dear Khadija, thank you for your interesting thoughts.

One of the most complicated aspects of dealing with AI is its multidisciplinary nature. The problem also has an impact on the review of the literature which, given the objectives of the work and also my skills, will be oriented above all from the point of view of accounting and business administration sciences. This does not remove the need to refer — I am thinking of the ethical issue (a central theme if we talk about the cons of AI) — also to journals and conference proceedings in different fields: if necessary, I will try to compare myself with colleagues from my university who work in the philosophical field, also to better understand the literature sources to be analyzed.

With reference to the speed of development of knowledge on AI, I am aware of the need to use type of literature that are generally less used: so not only journals but also conference proceedings and working papers in the hope that they will allow me to grasp the most recent ideas.

Regarding the third question, I believe that much will depend on the answers received from the questionnaires relating to Italian listed companies. If, as I hope, interesting cases of the application of AI in the context of corporate governance emerge, I could develop a second paper dedicated to their illustration.

Dear Adam, thank you for your ideas. I agree with you: given the speed of evolution of AI, the obsolescence of parts (or the whole) of work is almost a certainty rather than a risk. However, this cannot curb curiosity and the need to investigate a phenomenon with such important prospects. I will carefully evaluate your considerations.

Loai Ali Alsaid: Dear Andrea, thank you for your manuscript. It is really interesting to integrate artificial intelligence (AI) into a corporate governance framework, especially given the current debate about the legitimacy of AI tools. However, to improve the quality of your empirical analysis, I suggest that you interpret the results through a specific theoretical framework or model. This will demonstrate your theoretical contributions to the literature, especially as the use of AI is seen as an emerging field in corporate governance. I wish you all the best with this interesting paper.

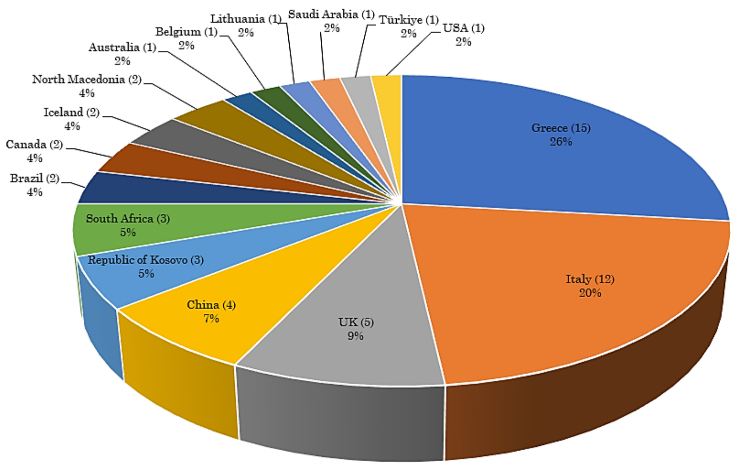
Andrea Fradeani: Dear Loai, thank you for your considerations, which I will evaluate for the development of my research.

Chan Du: Dear Dr. Fradeani, thank you for presenting the important and timely research on AI and corporate governance. I find your research on using a questionnaire to identify the possible uses of AI in the context of corporate governance and then identify the factors that affect the uses of AI in corporate governance very interesting. One of the related studies is Erel, Stern, Tan, and Weisbach (2021), which find that the members of board of directors selected using AI algorithms could outperform those actually selected by firms. I wonder if the questionnaire may include questions such as whether the companies have AI governance (rules, policies, procedures, etc.) in addition to the possible uses of AI in corporate governance as AI governance is a necessary component related to the uses of AI in corporate governance.

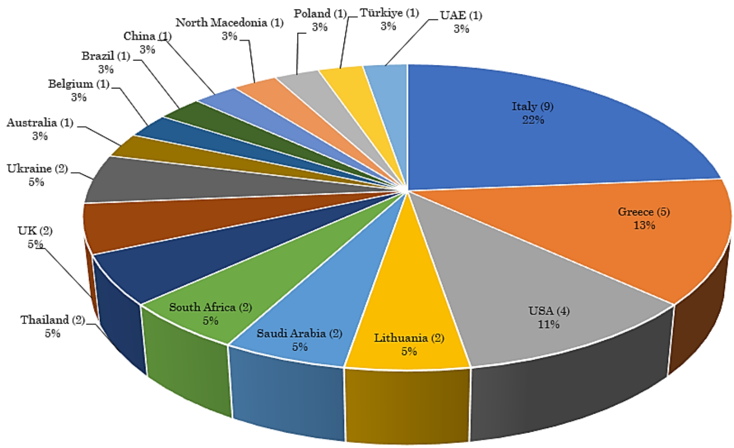
CONFERENCE INFOGRAPHICS

1. Conference forum participants, discussants, attendees

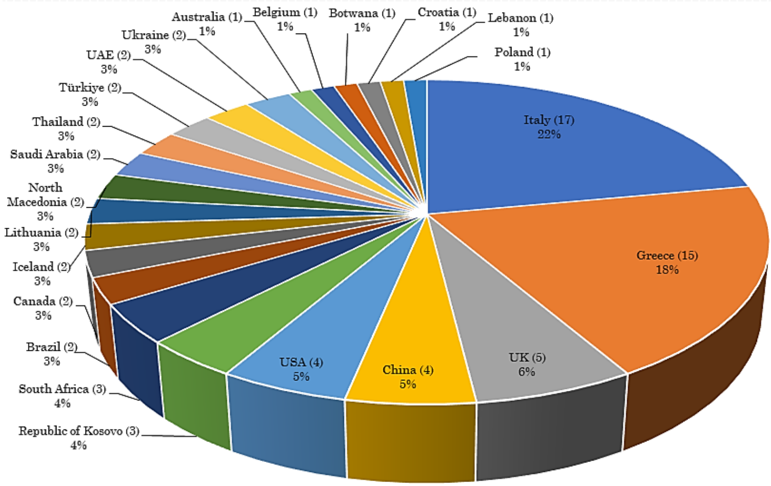
Conference forum presentations authorship — geographical representation



Conference forum comments authorship — geographical representation

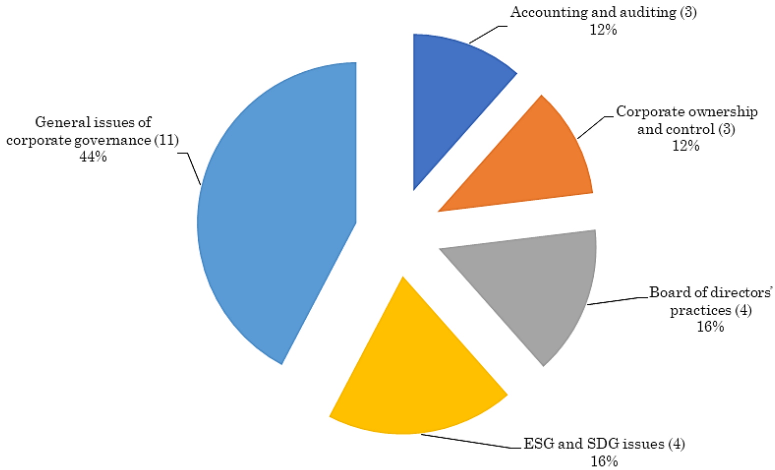


Conference forum attendees — geographical representation

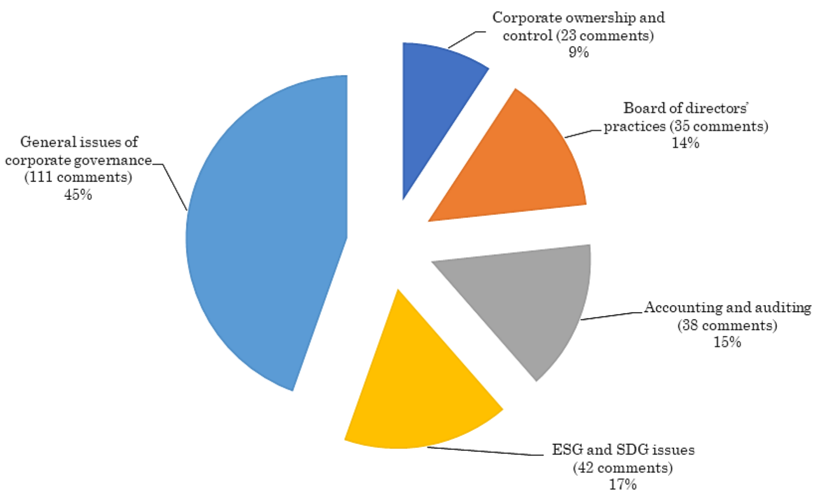


2. Conference forum presentations and comments

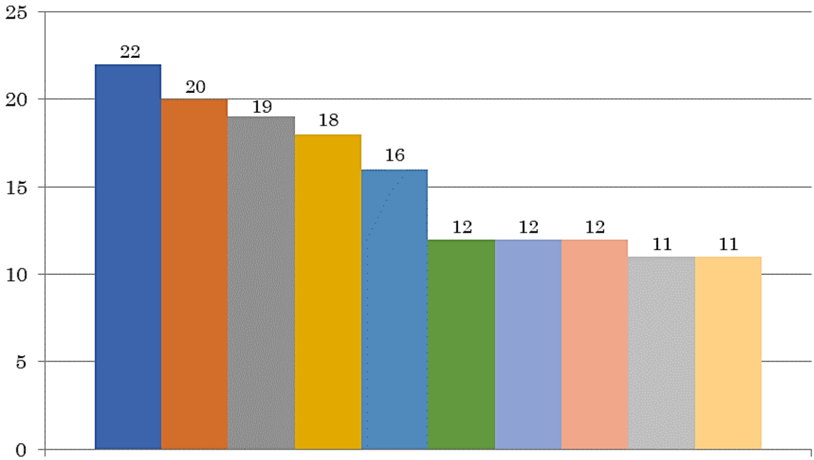
Topics of the conference forum presentations



Conference forum comments — topics discussed

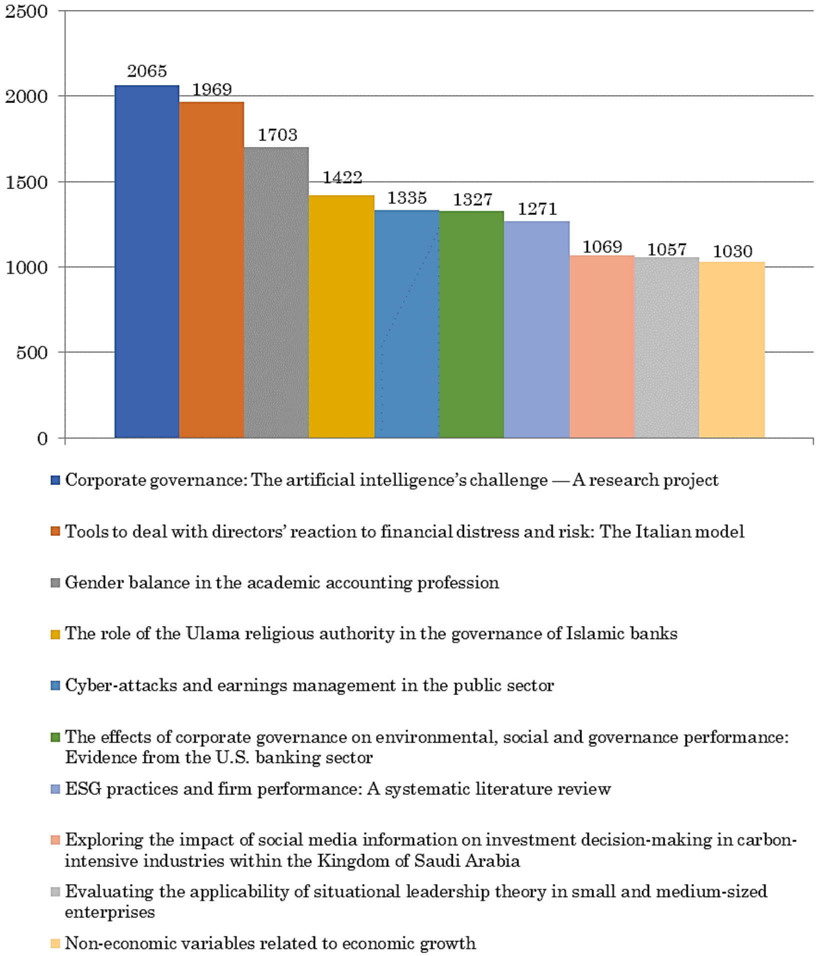


Conference forum comments — top-10 most discussed presentations (by number of comments)

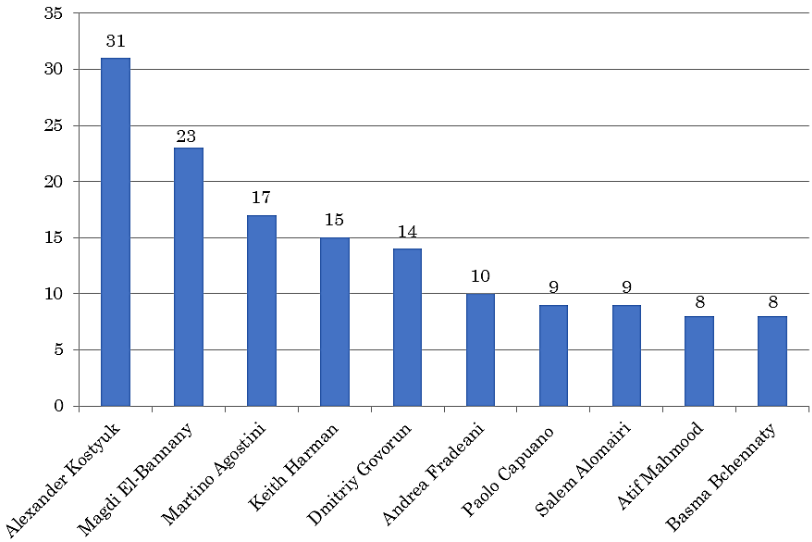


- Gender balance in the academic accounting profession
- The effects of corporate governance on environmental, social and governance performance: Evidence from the U.S. banking sector
- Corporate governance: The artificial intelligence's challenge — A research project
- ESG practices and firm performance: A systematic literature review
- Non-economic variables related to economic growth
- An empirical study on the relationship between executive team heterogeneity and corporate innovation
- Cyber-attacks and earnings management in the public sector
- Exploring the impact of social media information on investment decision-making in carbon-intensive industries within the Kingdom of Saudi Arabia
- Career adaptability as a mediating factor for personality towards entrepreneurial intention
- Organizational culture in the Greek public sector: Empirical evidence and strategic governance implications

Conference forum comments — top-10 most discussed presentations (by volume of comments (words))



Conference forum comments — top-10 most commenting discussants (by number of comments)



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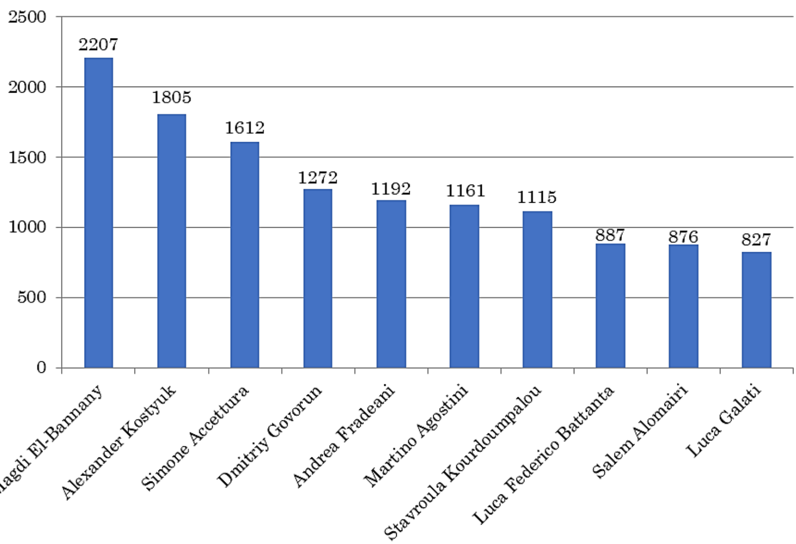
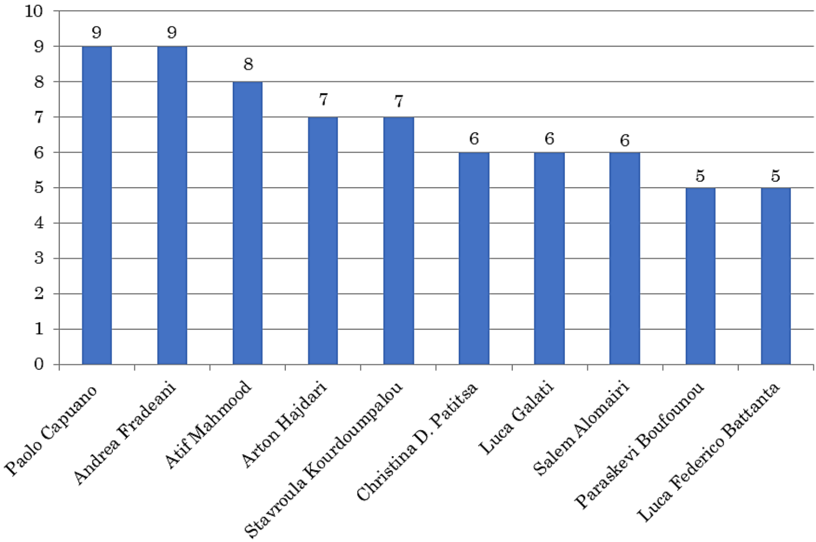
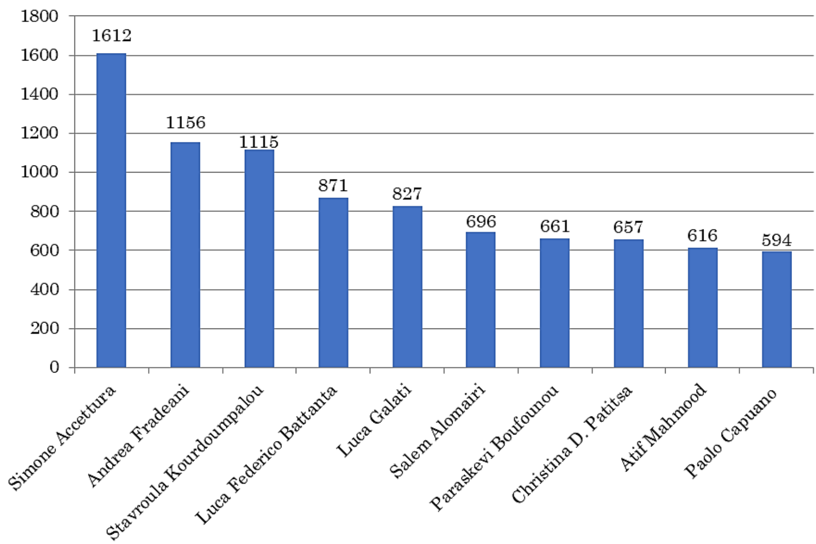


Conference forum comments — top-10 most commenting presenters (by number of comments)



Conference forum comments — top-10 most commenting presenters (by volume of comments (words))



CONFERENCE FORUM DISCUSSANTS INDEX

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