Revista Ibero-Americana de Estratégia
Iberoamerican Journal of Strategic Management

C O P E
JM14473

e-ISSN: 2176-0756
https://doi.org/10.5585/2025.27483
Received: 29 Sept. 2024 / **Approved:** 17 Dec. 2024
Evaluation Process: Double Blind Review
Editor in Chief: Heidy Rodriguez Ramos
Co-editor: Ivano Ribeiro
Section Editor: Renato Fabiano Cintra

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Level of maturity of ESG governance practices: implications on organizational performance

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Abstract

Objective of the Study: This study analyzes the existence of an associative relationship between the maturity level of ESG governance practices and organizational performance.
Methodology/Approach: The sample was made up of 88 respondents from organizations from different segments based in the Southern Region of Brazil, and was collected for accessibility and convenience. Canonical correlation analysis was used to process and analyze the data.
Originality/Relevance: The relevance and contribution of this study in the scientific aspect are related to filling a gap observed in the analysis and evaluation of ESG governance practices, through understanding the maturity level, correlating them with organizational performance.
Main Results: The research showed support from the data for the hypotheses formulated, demonstrating that ESG governance practices have an associative relationship with organizational performance, as the strength of association between the dimensions presented a high and significant coefficient of variation (0.877 / p-value of 0.000), a canonical R^2 of 0.769 considerable and a Wilks' Lambda of 0.226 close. It was evident that the maturity level of all organizations researched considering all proposed dimensions was the general average value of 4.03, at Level 4 of maturity, that is, ESG governance practices are established and systemic.
Theoretical/Methodological Contributions: The study emphasizes the importance of understanding the level of maturity of ESG governance practices. It also demonstrates a direct relationship between the maturity level of ESG governance practices and operational performance, offering new ideas on how these dynamics apply in a regional context.

Keywords: ESG, maturity models, organizational performance

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Authors' notes

Conflict of interest: The authors have not declared any potential conflicts of interest
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Cite as / Como citar

American Psychological Association (APA)

Trentin, L., & Marques, M. (2025, Mayo/Aug.). Level of maturity of ESG governance practices: implications on organizational performance. *Iberoamerican Journal of Strategic Management (IJSM), 24*(2), 1-43, e27483. https://doi.org/10.5585/2025.27483

(ABNT – NBR 6023/2018)

TRENTIN, L.; MARQUES, M. Level of maturity of ESG governance practices: implications on organizational performance. *Iberoamerican Journal of Strategic Management (IJSM),* v. 24, n. 2, p. 1-43, e27483, Mayo/Aug. 2025. https://doi.org/10.5585/2025.27483

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Resumo

Nível de maturidade das práticas de governança ESG: implicações no desempenho organizacional

Objetivo do Estudo: Este estudo analisa a existência de uma relação associativa entre o nível de maturidade das práticas de governança ESG e o desempenho organizacional.
Metodologia/Abordagem: A amostra foi composta por 88 respondentes de organizações de diferentes segmentos sediadas na Região Sul do Brasil, e foi coletada por acessibilidade e conveniência. A análise de correlação canônica foi utilizada para processar e analisar os dados.
Originalidade/Relevância: A relevância e contribuição deste estudo no aspecto científico estão relacionadas ao preenchimento de uma lacuna observada na análise e avaliação das práticas de governança ESG, por meio da compreensão do nível de maturidade, inter-relacionando-as com o desempenho organizacional.
Principais Resultados: A pesquisa apresentou suporte dos dados para as hipóteses formuladas, demonstrando que as práticas de governança ESG têm relação associativa com o desempenho organizacional, pois a força de associação entre as dimensões apresentou um coeficiente de variação alto e significativo (0,877 / p-valor de 0,000), um R^2 canônico de 0,769 considerável e um *Lambda de Wilks* de 0,226 próximo. Ficou evidente que o nível de maturidade de todas as organizações pesquisadas considerando todas as dimensões propostas foi o valor médio geral de 4,03, no Nível 4 de maturidade, ou seja, as práticas de governança ESG são estabelecidas e sistêmicas.
Contribuições teóricas/metodológicas: O estudo enfatiza a importância de entender o nível de maturidade das práticas de governança ESG. Também demonstra uma relação direta entre o nível de maturidade das práticas de governança ESG e o desempenho operacional, oferecendo novas ideias sobre como essas dinâmicas se aplicam em um contexto regional.

Palavras-chave: ESG, modelos de maturidade, desempenho organizacional

Resumen

Nivel de madurez de las prácticas de gobernanza ESG: implicaciones en el desempeño organizacional

Objetivo del estudio: Este estudio analiza la existencia de una relación asociativa entre el nivel de madurez de las prácticas de gobernanza ESG y el desempeño organizacional.
Metodología/Enfoque: La muestra estuvo compuesta por 88 encuestados de organizaciones de diferentes segmentos con sede en la Región Sur de Brasil, y fue recolectada por accesibilidad y conveniencia. El análisis de correlación canónica se utilizó para procesar y analizar los datos.
Originalidad/Relevancia: La relevancia y contribución de este estudio en el aspecto científico están relacionadas con llenar un vacío observado en el análisis y evaluación de las prácticas de gobernanza ESG, a través de la comprensión del nivel de madurez, interrelacionándolas con el desempeño organizacional.
Principales resultados: La investigación mostró respaldo de los datos a las hipótesis formuladas, demostrando que las prácticas de gobernanza ESG tienen una relación asociativa con el desempeño organizacional, ya que la fuerza de asociación entre las dimensiones presentó un coeficiente de variación alto y significativo (0,877 / p-valor de 0,000), un R^2 canónico de 0,769 considerable y una Lambda de Wilks de 0,226 cercana. Se evidenció que el nivel de madurez de todas las organizaciones investigadas considerando todas las dimensiones

propuestas fue el valor promedio general de 4.03, en el Nivel 4 de madurez, es decir, las prácticas de gobernanza ESG están establecidas y son sistémicas.
Aportes teóricos/metodológicos: El estudio enfatiza la importancia de comprender el nivel de madurez de las prácticas de gobernanza ESG. También demuestra una relación directa entre el nivel de madurez de las prácticas de gobernanza ESG y el desempeño operacional, ofreciendo nuevas ideas sobre cómo se aplican estas dinámicas en un contexto regional.

Palabras clave: ESG, modelos de madurez, desempeño organizacional

Introduction

The development of an inclusive, ethical and environmentally sustainable society, which ensures a better quality of life for all people, essentially derives from the ability of organizations to create and implement business practices that align dividends, purposes and transparency. This is a path that cuts across both business and society (Cars & West, 2015; Popova, 2020; Sklarew, 2022).

In order to support the transformation of business and society to simplify this journey, according to Archer (2024) there is a need to use more practical and innovative approaches, integrating Environmental, Social and Governance [ESG] themes at all stages of the business.

ESG is a way of analyzing non-financial dimensions of organizations, in environmental, social and governance areas (Van Duuren, Plantinga, & Scholtens, 2016). Furthermore, ESG allows for different opportunities for improvement to be created, which effectively contributes to reducing costs, increasing business performance and a way to position oneself in the market with a difference over the competition (Koroleva, Baggieri, & Nalwanga, 2020). Amcham (2024) shows that incorporating ESG practices into the business strengthens the company's reputation in the market by 61%, generates a positive impact on social and environmental issues by 57% and reduces environmental, social and governance risks by 40%.

The relevance of this topic has more than quadrupled in recent years, making ESG a growing market reality. However, even though numerous organizations undertake some type of practice in the environmental, social and governance areas, they do so in a fragmented manner, without adopting a clear policy of engagement in these three areas, resulting almost exclusively in specific actions (Atchabahian, 2024; Salvo, 2022); other organizations position themselves at the forefront of ESG management in the eyes of interested parties, claiming to practice more than they actually do in the premises and requirements of ESG (Pinheiro, 2023), that is, they use practices determined by the market as Greenwashing. That is a marketing praxis used by

organizations that seek to establish an ecologically correct, sustainable or environmentally responsible image before interested parties, when in fact they are effectively inconsistent with these statements. (Ruiz-Blanco, Romero, & Fernandez-Feijoo, 2022).

At this juncture, the research carried out by the consultancy Walk the Talk by La Maison stands out, with 4,421 people (men and women), aged 16 to 64, from the five regions of Brazil, from the classes A, B and C, which states that 94% of Brazilians expect organizations do something about ESG, however, when asked, only 17% believe that corporations actually do so (Matsue, 2022). In general, organizations point out that in order to advance the ESG agenda, it is necessary to have a better structuring of support areas for implementation, including external support areas (consultancy), which was confirmed by 25.7% of respondents, greater training of professionals in this agenda (17.5%), increased actions to raise awareness of ESG practices (17.5%) and greater support from leadership (15.3%) (PROPMARK, 2023).

To facilitate ESG deployment and implementation processes, according to Burmester, Pereira and Scarpi (2007), it is necessary to establish a contemporary management model, to better meet the demands of organizations, optimizing policies, processes and practices, defining appropriate models to evaluate organizational maturity and determine areas for improvement. Thus, Essman (2009) proposes the use of maturity models, which allow measuring the status quo, as well as enabling the improvement process that best adapts to the organization, remaining within the established criteria of good practices required in the specific scope. For Kirrane (2009), maturity models are usually used as a form of benchmarking, self-evaluation, change management and organizational learning. Maturity models, in line with Kolukısa Tarhan *et al.* (2020), highlight an ideal balance between theory and practice, which are conductive to better managing the results identified in the diagnosis process of transition between maturity stages and implementation of necessary changes, with the purpose of understanding and expanding business performance (Carvalho, 2016).

According to Daugaard and Ding (2022), the higher the maturity level of ESG practices, the higher the business performance. Similarly, Chen and Xie (2022), Fatemi, Glaum and Kaiser (2018) and Yoo and Managi (2021) establish the importance of effectively implementing ESG practices, as they contribute to strengthening the value of an organization and its business performance. For Kaplan & Norton (2006) and Smits *et al.* (2008), when an organization quantifies its information using indicators that reproduce its objectives and goals, it provides support so that managers can identify opportunities for improvement, thus ensuring favorable business performance.

Knowing that, Liao, Pan and Zhang (2023) stand out, who state that recent studies have identified barriers to comprehension and knowledge as the main obstacles to the development of ESG practices; Amcham (2024) propose to increase the level of research and development of ESG practices in Brazil, as only 71% of the companies surveyed indicated that they were at the initial (45%) or advanced (26%) stage of implementing ESG practices; Pinheiro (2023), who recommends the use of ESG scoring sources, that is, understanding the maturity level of ESG practices in organizations; Puzzonia (2018), who mentions that ESG can be a way to boost sustainable corporate performance by encompassing environmental, social and governance aspects; and Dalal and Thaker (2019) and Velte (2017), who mention the need for a positive association between ESG practices and organizational performance.

In light of this situation, the following research question is proposed: how does the level of maturity of ESG governance practices influence the performance of organizations from different segments?

Thus, this article aims to analyze the existence of an associative relationship between the level of maturity of ESG governance practices and organizational performance. According to Trentin (2021), organizations must concentrate their efforts on strategic actions, in order to design the best policies, processes and practices, which correspond to their needs and convert them into sustainable results, becoming more competitive in the market.

This document is structured as follows: the second section presents the literature review, the third demonstrates the methodological procedures, the fourth section highlights the results of the research and, finally, the conclusions and recommendations.

Literature Review

Environmental, Social and Governance [ESG]

The reductionist idea that capital is generated only to support an organization, according to Costa and Ferezin (2021), in contemporary times no longer applies, as there are other aspects that support the most relevant decisions for the growth of organizations. At this juncture, organizations have widely debated the Environmental, Social and Governance [ESG] concept due to the exercise of awareness about all attitudes taken in favor of society, which science defines as conscious consumption.

The term Environmental, Social and Governance [ESG] was coined in 2004 in a Global Compact publication in partnership with the World Bank, called Who Cares Wins. ESG criteria are fully related to the 17 Sustainable Development Goals [SDGs], established by the Global

Compact, a global initiative involving the United Nations [UN] and several international entities, with the main purpose of creating guidelines and including environmental issues, social and governance in asset management of organizations (Gillan, Koch, & Starks, 2021). According to Escrig-Olmedo *et al.* (2019) and Nascimento (2021) ESG is a journey of business transformation, constituted over different decades, through a combination of different propositions, involving the construction of an inclusive, ethical and environmentally sustainable world, which guarantees the quality of life for everyone.

ESG, according to Billio *et al.* (2021), should be understood as a grouping of three axes: environmental, social and governance (and their respective practices) (Table 1). According to Hill (2020), when the organization harmoniously aligns the three axes, it is more apt to guarantee the continuity of its business, as well as a financial return as a result of effective strategic governance.

Table 1

Description of ESG axes and practices

Axis	Description
Environmental	Analyzes the performance and development of practices that aim to preserve the environment and conscious consumption of resources (Manrique & Marti-Ballester, 2017). Practice – Ex.: The letter E (Environmental), in the acronym, represents the impact that a company causes on the natural environment. This includes issues such as pollution (carbon emissions, toxic chemicals and metals, packaging and other waste), the use of natural resources (water, land, trees) and the consequences for biodiversity (the variety of life on Earth), as well as how we try to minimize our environmental footprint (energy efficiency, sustainable agriculture, green buildings) (PRI, 2019).
Social	It is linked to gender and people inclusion, improving customer and employee satisfaction (Velte, 2017). Practice – Eg: The letter S (Social) covers issues such as health and safety for employees or working standards and well-being for other workers in the companies' supply chain. It also involves product security for consumers, privacy and data security for its users, as well as companies must be committed to overcoming inequality and discrimination, both through fair treatment of employees and by ensuring that no social group is denied access to essential goods and services (Ahlklo & Lind, 2018).
Governance	It addresses aspects of good internal management, compliance with the organization's processes and current legislation (Tarmuji, Maelah, & Tarmuji, 2016). Practice – Ex.: The letter G (Governance) is linked to how responsibly a company manages its business. This takes into consideration the ethical requirements of being a good corporate citizen, such as anti-corruption policies and tax transparency, as well as traditional corporate governance concerns such as managing conflicts of interest, board diversity and independence, quality of financial disclosures, relationships with stakeholders and evaluation of whether minority shareholders are treated fairly by controlling shareholders (Freeman, 2017).

Source: prepared by the authors (2024).

ESG, through its axis, must be a constituent part of the organizational strategy, comprising a long-term vision, with well-defined objectives related to the environment and society, assisted by performance indicators to minimize impacts and expand results, with the purpose of knowing and meeting the needs of all interested parties (Bresciani *et al.*, 2016; Shaikh, 2022).

Launched in December 2022, the ABNT PR 2030:22 Regulation, has 145 pages with several Recommended Practices (PR) for the ESG sector in Brazil, establishes that ESG objectives must be incorporated into those of the organization, as well as guides that the principles that comprise each of the axes serve as assumptions to identify possible ESG practices for the business (ABNT, 2022).

Table 2 presents some of the practices, by axis, suggested by the ABNT PR 2030:22 Standard, aimed at adapting the organization to ESG objectives.

Table 2

ESG practices by axis

Axis - Environmental	
Theme	Criterion
Climate Change	Mitigation of greenhouse gas emissions [GHG] Adaptation to climate change Energy efficiency
Water Resources	Water use Effluent management
Biodiversity and ecosystem services	Conservation and sustainable use of biodiversity Sustainable land use
Circular economy and waste management	Circular economy Waste management
Environmental Management and Pollution Prevention	Environmental management Prevention of noise pollution (machine sound and vibrations) Air quality (pollutant emissions) Management of contaminated areas Hazardous products
Axis - Social	
Theme	Criterion
Social Dialogue and Territory Development	Private social investment Dialogue and engagement of stakeholders Social impact
Human Rights	Respecting human rights Fighting forced or compulsory labor Fighting against child labor
Diversity, Equity and Inclusion	Diversity and equality policies and practices Culture and promotion of inclusion
Employment Relations and Practices	Career development Occupational health and security Quality of life Liberty of association Remuneration and benefits policy
Promoting Social Responsibility across the Value Chain	Relationship with customers Relationship with suppliers
Axis - Governance	
Theme	Criterion
Corporate Governance	Corporate governance structure and composition Purpose and strategy towards sustainability
Corporate Conduct	Compliance, integrity program and anti-corruption policies Practices for fighting unfair competition (antitrust) Stakeholder engagement
Control and Management Practices	Business risk management Internal controls Internal and external audits Legal and regulatory environment Information security management Personal data privacy
Management Transparency	Accountability ESG, sustainability and or integrated reporting report

Source: ABNT (2022, p. 19 - 21).

The ABNT PR 2030:22 Regulation reinforces the importance of a structured approach, which can serve as an essential guide for organizations in order to analyze and evaluate the level of ESG maturity and the creation of effective action plans, since the imbalance of environmental, social and governance practices is quite pronounced between different Brazilian regions, where many organizations are still in the early stages of ESG compliance (ABNT, 2022).

According to Amcham (2024), in Brazil in 2023, 71% of companies will immediately adopt ESG practices, however, only 26% will be at an advanced stage. In the South of Brazil, Environmental, Social and Governance [ESG] practices have gained relevance, reflecting the national growth of these initiatives. The Southern region, with a strong industrial and agribusiness base, has benefited from government incentives, implementing projects aimed at reducing carbon emissions and energy efficiency, expanding the commitment to sustainable forest management projects and biodiversity conservation, improving the industrial waste management and the financing of green bonds, among others. (Lopes & Hupalo, 2024; Oliveira *et al.*, 2024). Companies in the paper and cellulose, textile, logistics, beverages, energy and entertainment segments are among the leaders in sustainability, standing out regionally and globally for their robust ESG strategies (FGV, 2024). Cruz (2021) highlights that many organizations created Environmental, Social and Governance [ESG] committees to develop and better engage stakeholders, in addition to promoting transparency and ethics in relation to this topic.

However, according to Oliveira *et al.* (2024), only a fraction of southern organizations fully reports their Environmental, Social and Governance [ESG] activities, reflecting the need for greater standardization and monitoring of practices in the region, as only 29% of companies prioritize ESG investments as a central strategy in Brazil (Amcham, 2024). Many companies still struggle with measuring the impact of ESG practices and overcoming cultural and financial barriers. Among the main challenges, the lack of specialized professionals, awareness of the main business leaders about the importance and benefits of Environmental, Social and Governance [ESG] practices, resistance to cultural changes within organizations, lack of standardization and monitoring for measuring and reporting your ESG impacts in a clear and comparable way, in addition to regulatory pressures and high initial costs to adopt more sustainable technologies or inclusive social practices also represent significant barriers (Lopes & Hupalo, 2024; Oliveira et al., 2024). Small and medium-sized companies face even more difficulties due to lack of financial resources and limited access to specialized consultancy (Souza *et al.*, 2023).

In view of this, we can see a growing concern in understanding what the organization actually has in terms of good environmental, social and governance practices, as interested parties demand an interest in reliable information, making it necessary to establish models of analysis and recognition carried out by external sources, in other words, specialized business consultancies, in order to guarantee fairness in confirming the ESG practices implemented, quantified and reported (Lavin & Montecinos-Pearce, 2021).

Maturity Models

The stage maturity models, according to Chandler (1969) and Haire (1959), are not as contemporary in the literature on organizations. From a historical perspective, since the 1950s, it has been observed that maturity models based on stages are defined based on their own characteristics (Smith, Mitchell, & Summer, 1985). Haire (1959) can be recognized as one of the precursors to propose the concept that organizations mature in stages, following a certain uniform pattern. Chandler (1969), similarly, established the idea of stages in the life cycle of organizations in a structured model, in which the stages evolved and adapted to organizational structures and strategies.

The first publications of the term maturity model, still in the 1950s, essentially addressed human needs, economic growth and progression of information technology in organizations. (Röglinger, Pöppelbuß, & Becker, 2012).

The maturity model proposed by Philip B. Crosby in 1979 was a precursor to today's maturity models (Barra & Ladeira, 2017). The Quality Management Maturity Grid [QMMG] is an organizational maturity matrix designed by Crosby, published for the first time in his book Quality is Free, also in 1979. This model was one of the first maturity models for evaluating quality maturity, containing five stages (uncertainty; awakening; clarification; wisdom; and certainty) of maturity and six measurement categories (management understanding and attitude; company quality status; problem solving; cost of quality with percentage of sales; improvement measures of quality; and summary of the company's possibilities in the quality sector) that help the user to identify their own situation in relation to maturity. This model recognizes the importance of human factors such as leadership, attitude and collaborative work (Crosby, 1979).

The principles developed in the maturity matrix proposed by Crosby were adapted in 1986 by the Software Engineering Institute [SEI] at Carnegie Mellon University with the objective of creating the Capability Maturity Model [CMM] as a methodology used to develop and refine the process of an organization's software development. The model describes an

evolutionary path across five levels of increasingly organized and systematically more mature processes (Humphrey, 1999).

From the moment the concept spread, maturity models have been widely used, making it possible to find them in different areas of knowledge (Caralli, Knight, & Montgomery, 2012), such as: information technology, management of business, strategies, structure management, people management, product development, decision making, among others (Trentin & Tontini, 2021)

Regardless of the number of models created, according to Fraser, Moultrie and Gregory (2002), maturity models can contain the following elements: (a) number of levels; (b) level descriptor; (c) generic description of the characteristics of each level; (d) number of dimensions or process areas; (e) number of elements or activity in each process area; and (f) a description of each activity that could be performed at each maturity level.

Maturity models allow measuring the status quo, as well as enabling the improvement process that best suits the organization, remaining within the established criteria of good practices required in the specific scope (Essman, 2009). Elmaallam and Kriouile (2013) define maturity models as essential instruments to ensure the continuous improvement of systems and activities, providing self-assessment and providing guidelines for activities related to best practices.

Maturity models, according to Fraser, Moultrie and Gregory (2002), share the common domain of establishing a number of dimensions at various maturity stages, with a specific definition of performance at all levels. According to Caralli, Knight and Montgomery (2012) maturity models are determined or established by the following components: levels, model domains, attributes, assessment and scoring methods and paths for improvement.

The function of maturity models is to equip organizations in order to mix elements to homogenize benefits related to practices and knowledge experienced by the organization and interest groups (Trentin, 2021). Using a maturity model, according to Caralli, Knight and Montgomery (2012), as support for improving processes, practices and performance, should provide organizations and the interested parties where they are established with the capacity for internal reference performance, as a catalyst improvement in interest group performance and, finally, how to create and develop a common language.

Carvalho, Rocha and Abreu (2017) express that although maturity models present several limitations, they facilitate the management of information systems and the performance of organizations. The use of models to measure the maturity level can be interpreted as a

momentary representation of organizational performance at a given point (Chiesa, Coughlan, & Voss, 1996).

Organizational Performance

Organizational performance can be challenging due to its disparate standards, including sustainability, profitability, satisfying interest group biases, and willingness to face atypical situations with environmental changes (Anwar, 2017). According to Borman and Motowidlo (1993), organizational performance must be considered as actions or behaviors relevant to the organization's objectives.

Organizational performance aims to evaluate the effectiveness of organizations through performance indicators, to obtain results necessary for the efficiency of developing organizational activities and processes and achieving strategic objectives (Kaplan & Norton, 1992; Peixoto, Musetti, & Mendonça, 2016; Trentin, 2021), contrasting the stipulated goals and actual performance (Abubakar, 2019).

Organizations that have goals to evaluate their performance, according to Jung and Lee (2013), perform better because goals ensure that activities and resources are focused on organizational strategies and objectives and that stakeholders understand business priorities.

Bortoluzzi, Ensslin and Ensslin (2010) and Durst, Hinteregger and Zieba (2019) emphasize that measuring organizational performance makes it possible to make performance comparisons between the organization and other players, whether they are competitors or from other sectors. Performance measurement can also assure investors of the potential return on capital investment and on a periodic basis whether short, medium or long-term organizational strategies are being effectively executed.

The creation and standardization of indicators can help in the interaction between different interest groups and decision makers, enabling the generation of a systemic vision that innovates the planning of different services and/or products (Báscolo, Yavich, & León, 2006; Trentin, 2021). Performance indicators can vary according to the needs of the organization, being in line with the characteristics and demands of the business (Vignochi, Gonçalo, & Rojas Lezana, 2014; Trentin, 2021).

Indicators are performance measures that express results in numerical indices (Hronec, 1994; Paladini, 2011). The result of an effective application of indicators is the increase in knowledge about critical points in processes, allowing a continuous evaluation of their efficiency (Prahinski & Benton, 2004). Monitoring through indicators can contribute to improving quality, productivity and reducing costs in the activities carried out, when combined

with other management tools and aligned with the organizations' strategy (Schout & Novaes, 2007). To achieve the necessary results, due to the strategic complexity of organizations, it is necessary to apply several indicators as management tools (Slack, Brandon-Jones, & Johnston, 2018; Trentin, 2021).

According to Trentin (2021), in order for organizational performance to be measured, it is necessary to create a group of economic/financial, operational, quality and relationship indicators, to better represent the organization's reality. For Anwar (2017) organizational performance can be assessed using financial and non-financial metrics.

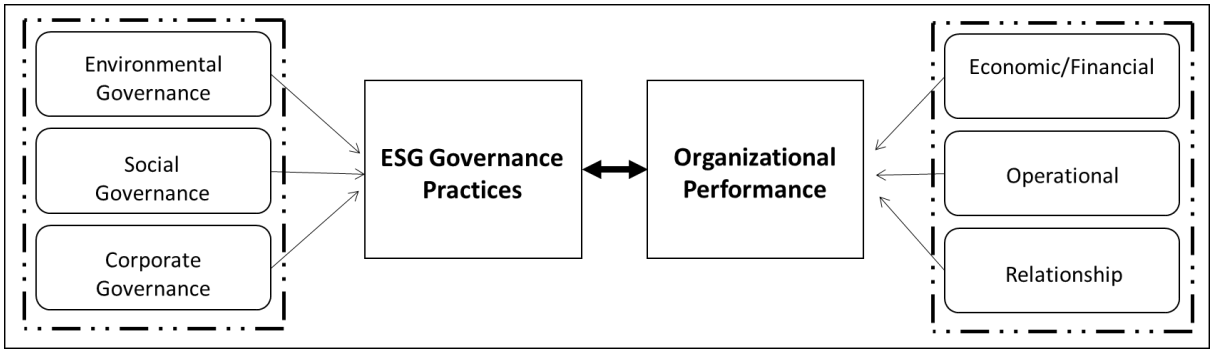
Hamann and Schiemann (2021) explain that capturing organizational performance is only viable if the relationship between organizational effectiveness and organizational performance is established. In view of this, Orlitzky, Schmidt and Rynes (2003) highlight that the appropriate way to portray organizational effectiveness is to make use of a set of performance constructs that essentially cover social, operational and organizational performance simultaneously.

With regard to social performance, Wood (1991) highlights that organizations must establish policies and actions aimed at social responsibility, programs with observable results with regard to community social relations, with affectionate content, based on feelings and social relations; associative and objective in nature, based on reason and the union of interests. In relation to operational performance, Combs, Crook and Shook (2005) highlight the need to conceive and put into practice non-economic goals in the set of activities that make up an organization's value chain. Finally, organizational performance is the result of the interrelationship between the attributes, actions and environments that make up an organization. Both economic and financial results are considered synonymous with organizational performance (Hamann *et al.*, 2013).

Based on the literature review, the researchers proposed the following research framework, as illustrated in Figure 1. In the proposed framework, this study suggests that there is an associative relationship between the level of maturity of ESG governance practices and organizational performance.

Figure 1

Graphical representation of the study hypotheses



Source: prepared by the authors (2024).

Given the reflections highlighted on the level of maturity, ESG governance and organizational performance, the following hypothesis was created, depicted below:

H – The maturity level of ESG governance practices has an associative relationship with organizational performance.

Methodology

The quantitative research used a database from the Econodata website to send 450 questionnaires to leaders and technicians responsible for ESG governance practices in organizations, considering the ranking of the 30 largest companies in ESG in the South of Brazil. Econodata is a technology company that uses Big Data and innovation as a prospecting platform to extract data from the Internet and organize company information.

The sample selection was based on criteria of relevance, representativeness, and feasibility of accessing the data. The Econodata database was selected as the main source due to its recognized expertise in using Big Data and technological innovation to collect and organize business information. Its wide coverage and reliability allows for detailed access and updated data from companies active in Brazil. Focusing on the 30 largest companies in ESG in the Southern Region of Brazil, according to public rankings and/or available indicators, ensures that the sample is made up of leading organizations in this topic. Additionally, defining the number of 450 questionnaires responds to the need to include different internal perspectives (leaders and technicians responsible for ESG), promoting diversity of responses and ensuring statistical robustness for the analysis of results.

The research instrument is made up of a total of 27 closed questions and six dimensions, as set out in Appendix A. Table 3 presents the dimensions defined for measuring Environmental, Social and Governance [ESG] practices and Organizational Performance.

Table 3

ESG Governance Practices and Organizational Performance Construct

Macro dimension	Dimension	Affirmatives
ESG Governance Practices	Environmental Governance	A1; A2; A3; A4; A5.
	Social Governance	A6; A7; A8; A9; A10.
	Corporate Governance	A11; A12; A13; A14; A15.
Organizational Performance	Economic/Financial	B1; B2; B3.
	Operational	B4; B5; B6; B7.
	Relationship	B8; B9; B10; B11; B12.

Source: prepared by the authors (2024).

To analyze the level of maturity of ESG governance practices, a five-level maturity scale was used, as shown in Table 4.

Table 4

Five-level maturity scale

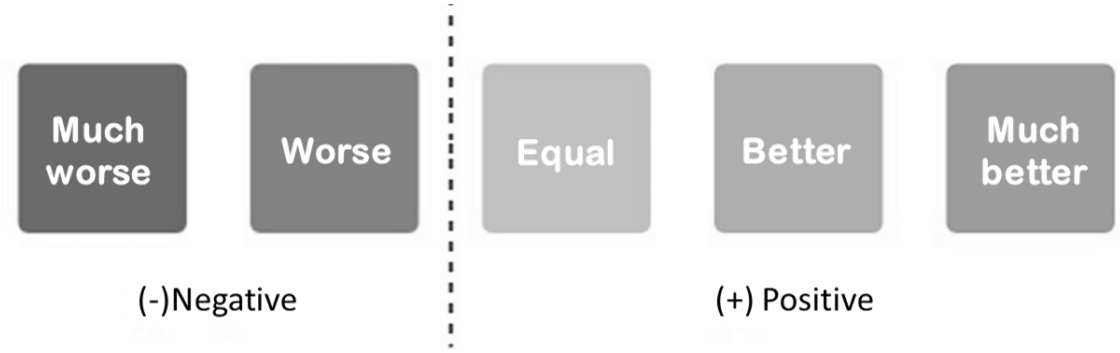
Level	Description
Level 5	Established, systemic and optimized: fully implemented, has established indicators, has effective results and shows continuous improvement over the last 12 months.
Level 4	Established and systemic: fully implemented in one area or more areas and with established indicators. Planned outcomes are achieved.
Level 3	Formally established: Formally implemented (documented), but there are some flaws in the execution.
Level 2	Informal or in the implementation phase: implementation was started by the organization. There is a deployment schedule.
Level 1	Lack of practices and standards: it has not yet been implemented or is being implemented informally, with unstable results.

Source: adapted from Trentin (2021, p. 135).

To assess organizational performance, based on respondents' perceptions, 12 questions were developed using an increasing Likert scale with scores ranging from “1 – much worse” to “5 – much better” in relation to the results prior to the implementation of ESG governance practices (Figure 2).

Figure 2

5-point Likert Scale



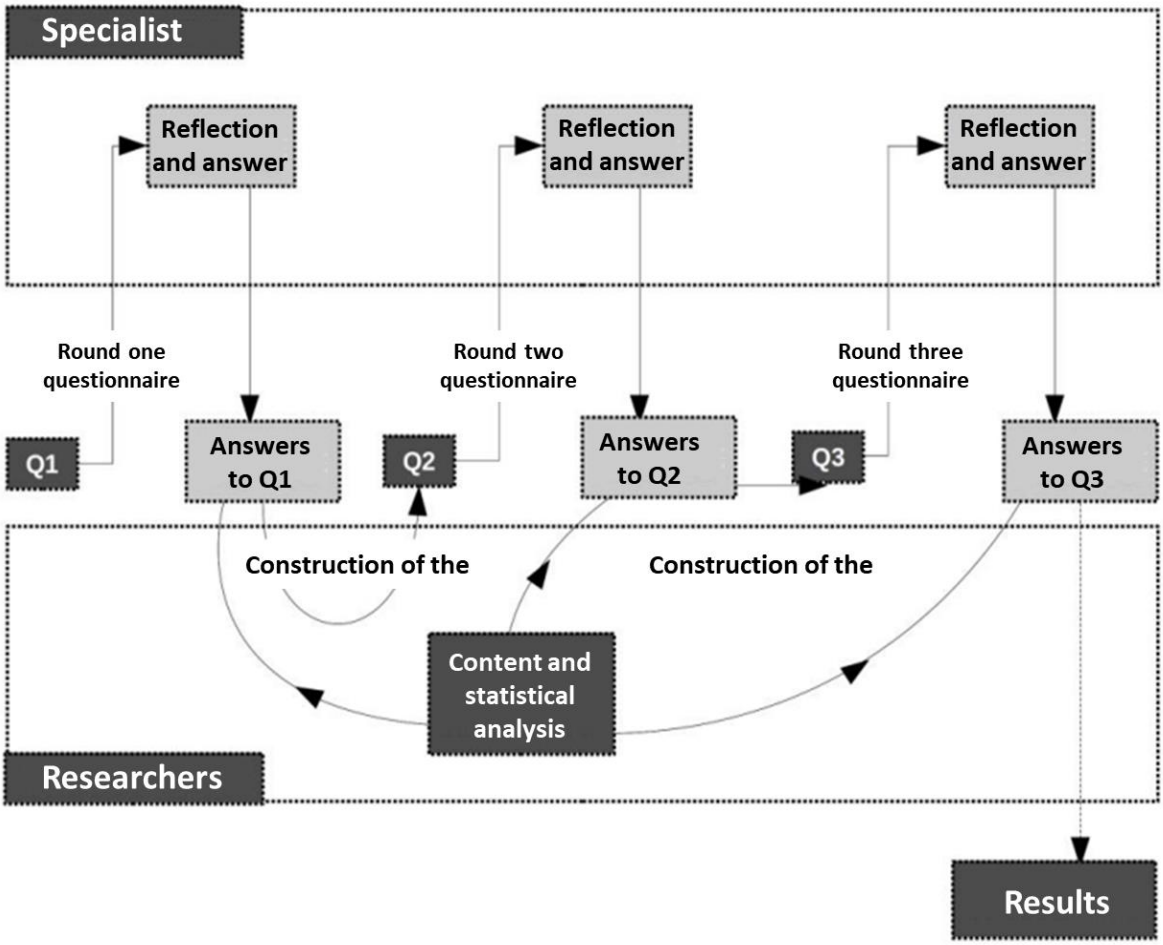
Source: prepared by the authors (2024).

The questionnaire was previously approved by five experts (professor; consultant; and manager) in ESG governance, using the Delphi research method to evaluate the assertions and later sent via email, LinkedIn and WhatsApp, in the first quarter of 2024 throughout the Southern Region of Brazil. Considered a prestigious research technique, the Delphi method, according to Facione (1990), allows bringing together a set of geographically separated expert points of view, to produce consistent results on complex and comprehensive propositions.

A schematic of the Delphi method implementation can be seen in Figure 3.

Figure 3

Generic Delphi method implementation scheme with three rounds



Source: adapted from Marques and Freitas (2018, p. 395).

To establish the ideal sample size, we used the G*Power software (Faul *et al.*, 2009; Memon *et al.*, 2020) based on three predictors to analyze the existence of an associative relationship between the level of maturity of ESG practices and organization performance. We followed the recommendations made by Ringle, Silva and Bido (2014), considering as parameters the effect size (f^2) = 0.15, the probability of error (α) = 0.05, and power (probability of error 1– β) = 0.95. Following these criteria, the software indicated the necessity of a sample of 74 elements. This resulted in a return of 88 questionnaires, which were validated, with complete data, without filling errors, low variance or incompleteness, which is the final size of the research sample.

Furthermore, canonical correlation analysis was used in the proposed model, to identify the existence, or not, of an associative relationship between the dimensions researched. This

analysis technique allows you to evaluate the relationship between multiple dependent variables and multiple independent variables, metric or non-metric (Fávero & Belfiore, 2017).

Results and Discussions

Sample characterization

In this survey, 88 respondents from organizations from different segments based in the Southern Region of Brazil were included. These were characterized based on some criteria: organization classification by size (small, medium and large), number of employees and also by market segment.

The characterization based on the size of the organizations demonstrated that large organizations (Gross Operating Revenue [ROB] greater than R$300 million) had greater participation in this study, corresponding to 81.8% of the sample (72), followed by organizations medium-sized organizations (ROB greater than R$4.8 million and less than or equal to R$300 million) with 11.4% (10) and small organizations (ROB greater than R$360,000 and less than or equal to BRL 4.8 million) totaled 6.8% of the sample (BNDS, 2024).

Regarding the classification of organizations by the number of employees, among the eighty-eight participants in the research, there was a predominance (78.4%) of organizations with more than 600 employees, followed by organizations with 301 to 600 employees, which represented 12.5%, organizations with 101 to 300 employees with 6.8% representation and there was also a small representation (2.3%) of organizations with up to 100 employees.

Table 5 shows the distribution of organizations according to size and classification by number of employees.

Table 5

Distribution in terms of organizational size and number of employees

Organizational Size	fI	%	Number of Employees	fI	%
Small size (Greater than R$360,000 and less than or equal to R$4.8 million)	6	6.8	Up to 100	2	2.3
Medium size (Greater than R$4.8 million and less than or equal to R$300 million)	10	11.4	From 101 to 300	6	6.8
Large size (Greater than R$300 million)	72	81.8	From 301 to 600	11	12.5
-	-	-	Above 600	69	78.4
Total	**88**	**100.0**	**Total**	**88**	**100.0**

Caption: fI - Accumulated Relative Frequency
Source: research data (2024).

When observing organizations by market segment, the predominance of organizations in the paper and cellulose segment is evident with 31.8% (28) of the sample (Table 6).

Table 6

Distribution by market segment

Segment	fI	%
Chemical	7	8.0
Foods	18	20.5
Forestry	3	3.4
Metal mechanic	4	4.5
Others	6	6.8
Port sector	3	3.4
Pulp and paper	28	31.8
Services	6	6.8
Storage and Transportation	3	3.4
Textile	10	11.4
Total	**88**	**100.0**

Source: research data (2024).

Multivariate analysis of the sample

The reliability of the dimensions was evaluated using the Cronbach's Alpha test. In this research, values were considered to be of good data reliability with coefficients $\alpha \geq 0.700$ (Table 7).

Table 7

Reliability analysis of dimensions

Dimension	Cronbach's alpha	No. of Items
Environmental Governance	0.948	5
Social Governance	0.937	5
Corporate Governance	0.940	5
Economic/Financial	0.914	3
Operational	0.901	4
Relationship	0.922	5

Source: research data (2024).

The standardized residue matrix of the presented construct demonstrated that the predicted correlation matrix is not far from the one observed, presenting less than 5% of values outside the range [-2.58; 2,58] recommended by Hair Jr. *et al.* (2009). The matrix of standardized residues of this research presented values in the interval [-2.41; 1.99], indicating the absence of adjustment problems in the estimated construct.

The multicollinearity of the dimensions was evaluated using the Tolerance statistic (< 0.10) and the Variance Inflation Factor [VIF] (VIF ≤ 10, multicollinearity is acceptable) (Hair Jr. *et al.*, 2009). This is verified in this research that the dimensions meet the requirements established by literature.

To identify the existence, or not, of a relationship between the researched dimensions, a canonical correlation analysis was carried out for each dimension, considering the variables in the organizational performance macro dimension as dependent and the variables in the ESG governance practices macro dimension as independent.

Table 8 presents the canonical correlations obtained, the canonical R^2, Wilks' Lambda, Eigenvalue and the significance test performed. It is observed that canonical function 1 was significant. The other canonical functions are not statistically significant, as their p values are higher than the significance level adopted in this study, which is 5%.

Therefore, the model manages to explain 99.4% of the data variance with just one discriminant (Eigenvalue = 3.335) through the canonical function 1. The eigenvalue indicates the degree of superiority between the functions (Corrar *et al.*, 2014).

The canonical correlation has the same explanatory power as the R^2 of a regression analysis, which, when the value is squared, measures the explanatory power of the aforementioned Function (Corrar *et al.*, 2014). According to Corrar *et al.* (2014), a high result for the canonical correlation (0.877) reveals a high explanatory power of the discriminant function. The squared canonical value corresponds to 76.9%, therefore, the function's degree of reliability is considerable.

To test the level of significance of the discriminant function, that is, whether the model is capable of separating and classifying the groups well, the Wilks lambda test was performed, also presented in Table 8. With a result of 0.226 for Wilks' lambda and a p-value < 0.000, we can say that the discriminating function is highly significant. The closer the value of Wilks' lambda test is to zero, this implies that the two data sets are well correlated (Corrar *et al.*, 2014).

Table 8

Canonical correlation analysis

Canonical Function	Canonical Correlation	R^2 Canonical	Wilks' lambda	Eigenvalue	p-value
1	0.877	0.769	0.226	3.335	0.000
2	0.137	0.019	0.980	0.019	0.788
3	0.040	0.001	0.988	0.002	0.711

Source: research data (2024).

Figure 4 shows the canonical cross loadings for canonical function 1. The larger the canonical loading, the more important the variable is in deriving the canonical statistical variable (Hair Jr. *et al.*, 2009). It is assumed that the first canonical function approximates the multiple regression results, and the independent statistical variable represents the set of dimensions that best predicts the three dependent dimensions, in particular the Relationship dimension.

The canonical load of the first independent statistical function has a homogeneous pattern, where the loads vary from -0.854 to -0.828. The canonical loads that correspond to canonical function 1, in the first set, show a tendency for the Social Governance dimension (-0.854) to have a greater influence on the model association, showing that the smaller the development and implementation of social practices by the organization, such as: promote employee diversity and well-being; respect labor relations between employees and employers; promote employee health and safety; and create effective actions to improve the development of existing relationships, the lower the growth in organizational performance will be. According to (Pirozzi, 2019) organizations must create and adequately develop relationships at different levels, since relationships of mutual trust can be considered a source of competitive advantage in the long term. Trentin *et al.* (2016) mention the importance of the organization developing practices aimed at well-being, health and safety, in addition to complying with legal regulations and technical regulations, in order to guarantee a better quality of life at work for all employees.

The second best canonical load (-0.851) observed was that of the Corporate Governance dimension, demonstrating that organizations that have not developed good governance practices aimed at creating compliance mechanisms and rules; code of ethics; Objective Key Results [OKR]; performance based on sustainability; and agile, responsive and adaptable organizational structure, the lower will be the assimilation of laws, norms and legislative rules and organizational policies and the greater will be the likelihood of conflict of interests.

According to FIA/USP (2023), organizations are living entities, guided by their own principles and values, but when they deviate from these, they can become corrupted. In view of this, it must establish a set of disciplines (compliance) to shield the business against possible attempts to defraud these organizational values, attempts to circumvent the laws, thus maintaining operations and strategies always in accordance with the stance established by the organization. Irikefe (2021) mentions that the use of OKR contributes to the creation of a dynamic work environment, with fewer conflicts, for both managers and employees, and that it has a positive and significant effect on organizational performance.

Regarding the Environmental Governance dimension (canonical loading of -0.828), it is clear that the fewer the number of practices aimed at waste management; instruments for the development of reverse logistics; use of Key Performance Indicators [KPI] to measure and monitor the performance level of the business's production chain; and the sustainable use of biodiversity, the lesser the organization's ability to orchestrate actions and practices with the purpose of preserving the environment and ensuring sustainable development for the organization and the planet. For Almeida *et al.* (2013) the implementation of reverse logistics and effective waste management enables cost reduction and revenue generation, thus improving organizational performance. Ishaq Bhatti, Awan and Razaq (2014) mention that Key Performance Indicators [KPI] offer a clear view of organizational performance through the measurement of strategies or management processes, thus improving the set of consecutive business stages. According to Gomes Júnior (2012), the evolution of organizations must be harmonious, so that not only economic growth occurs, but also social and environmental growth. In this way, the three constituent parts become interdependent and form the underpinning of sustainable development.

In the second set, equally homogeneously, the canonical load of the Relationship (-0.826) and Economic/Financial (-0.816) dimensions has the greatest influence on the model association and, thirdly, the Operational dimension was established. Regarding the Relationship dimension (canonical loading of -0.826), it can be observed that not developing and improving routines that favor customer satisfaction with the product and/or service offered; actions focused on education, the environment, culture and quality of life; effective governance mechanisms; means of minimizing the absence or unscheduled leave of employees; and maintain a beneficial flow of people entering and leaving the organization, will all lead to a lower capacity of the company to manage conflicts, engage employees, carry out more assertive communication, among others, thus influencing organizational performance. Oliver (2014) defines customer satisfaction through consumer enthusiasm when judging products or services

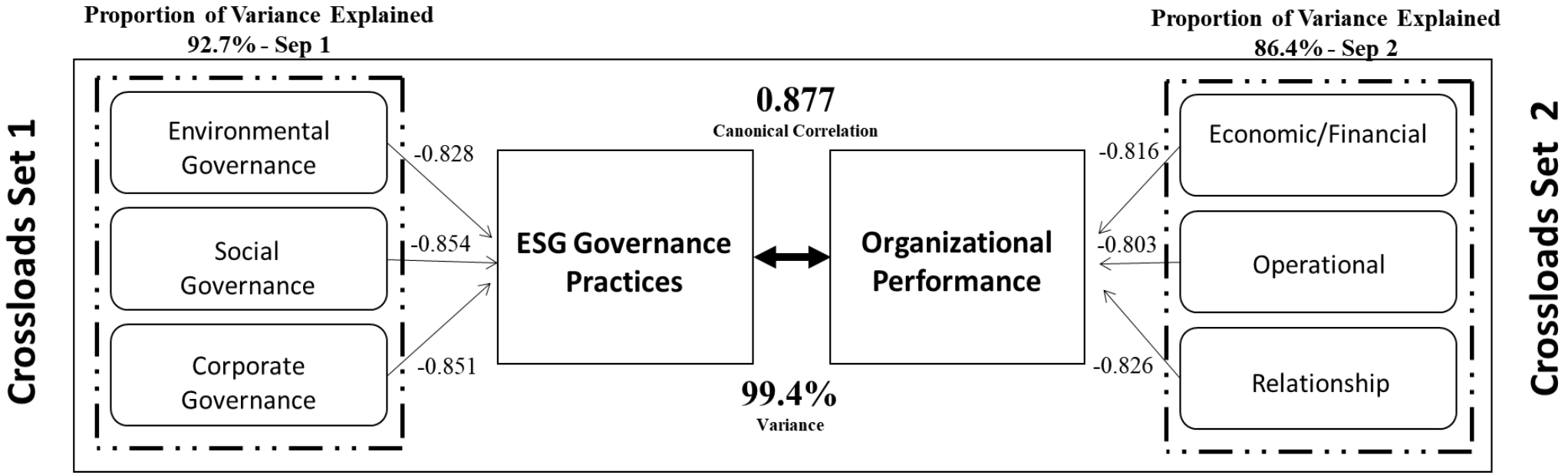
offered by organizations. Souza and Barro (2019) show that the adoption of good corporate governance practices tends to contribute to organizational growth, as well as ensuring the achievement of strategic objectives, thus guaranteeing determined results.

With regard to the Economic/Financial dimension (canonical loading of -0.816), it is clear that the lower the organization's level of knowledge is to quickly respond to market changes; investment and management, in order to stay at the forefront of the business; the organization's ability to increase its net income and reduce all budgetary expenses will be compromised; and efficiently understand financial health, identifying flaws and points that can be improved, the lower the organizational EBITDA. For Carvalho (2015), Earnings Before Interest, Taxes, Depreciation and Amortization [EBITDA] is considered a work tool for decision-making, fundamental for better understanding the operational performance of organizations. According to Kendall (2007), the net margin demonstrates the financial health of the business and contributes to better strategic decision-making, determining the percentage of profit obtained in relation to total revenue, favoring a more detailed analysis of its operational management, positioning in relation to the competition and protection in case of crises that affect the business.

In relation to the Operational dimension (canonical load of -0.803), we can observe that the lower the level of knowledge, experience and skills in the interpretation and assimilation of knowledge and operational technologies, such as: use of a renewable energy; water reduction, treatment and reuse (balancing between production and consumption); allocation and reuse of industrial waste; and development of people and the local community, the lower the organization's ability to execute its operational processes and routines efficiently, effectively and effectively, in addition to not using good methods or philosophies to produce with quality and deliver good deliveries to its customers. According to Rossi *et al.* (2024) the option of organizations to invest and work with renewable energy has a great influence on organizational performance in a sustainable way. Silva (2016) shows that the adoption of good practices for efficient use and minimization of water consumption in the production process effectively contributes to the reduction of waste and directly impacts the business's financial and operational results. According to Jabbor *et al.* (2012) people development should be considered as a project and a combination of management practices aimed at improving efficiency and operational effectiveness in the demand for convergence between people management policies and an environment conducive to improving organizational performance.

Figure 4

The path of canonical correlation analysis



Source: research data (2024).

From the analysis carried out, it can be inferred that this research confirmed the hypothesis [*H*] indicating that the maturity level of ESG governance practices has an associative relationship with organizational performance (Wilks's lambda of 0.226 and a p-value < 0.000), also represented by a great power of explanation (R^2=0.769), as demonstrated in the model of this research (Figure 4).

Overall maturity level of the sample

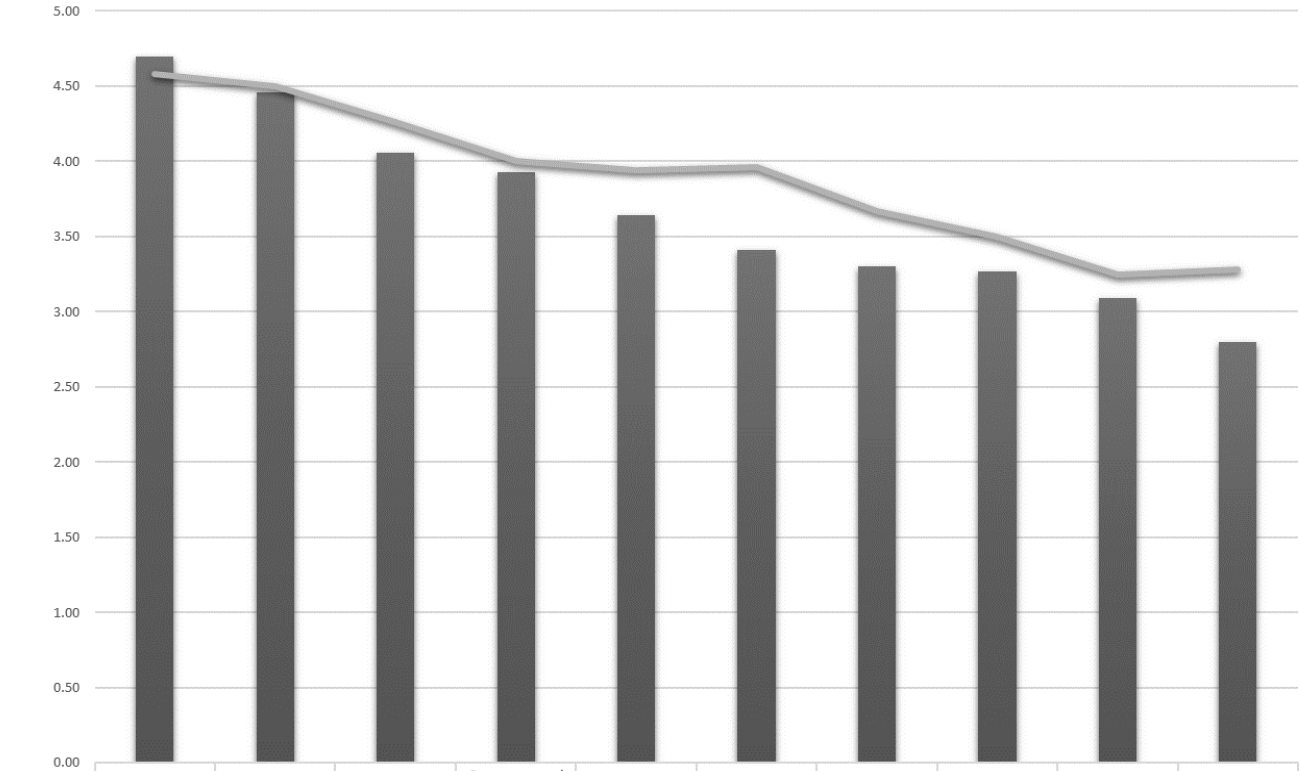
To define the maturity of each dimension, the average value obtained in the statements was used, because the dimensions measure different aspects. Therefore, total maturity corresponds to the level reached by the whole, and not by its specific parts. According to Vasconcellos (2002, p. 199), the understanding of the whole is externalized beyond the existence of the parts and "relationships are what give cohesion to the whole system, giving it a character of totality or globality". In this way, the level of maturity in the macro dimension of ESG governance practices was established by the average value achieved by organizations in the three dimensions.

As a result, it was identified that the maturity level of all proposed dimensions was the average value of 4.03 at Level 4 maturity, that is, the environmental, social and corporate governance processes are established and systemic, where the practices are fully implemented in one or more areas, with indicators established and planned results being achieved (Table 8).

As we can see (Table 9 and Figure 5), the highest level of total maturity obtained among ESG governance practices is the pulp and paper segment with a total average value of 4.70 at Maturity Level 4, while the lowest level of maturity belongs to the textile segment with a total average value of 2.80 at Maturity Level 2.

Figure 5

ESG maturity level and organizational performance by segment



	Pulp and Paper	Foods	Chemical	Storage and Transportation	Others	Services	Metal Mechanics	Port sector	Forestry	Textile
ESG	4.70	4.46	4.06	3.93	3.64	3.41	3.30	3.27	3.09	2.80
OP	4.58	4.50	4.26	4.00	3.94	3.96	3.67	3.50	3.25	3.28

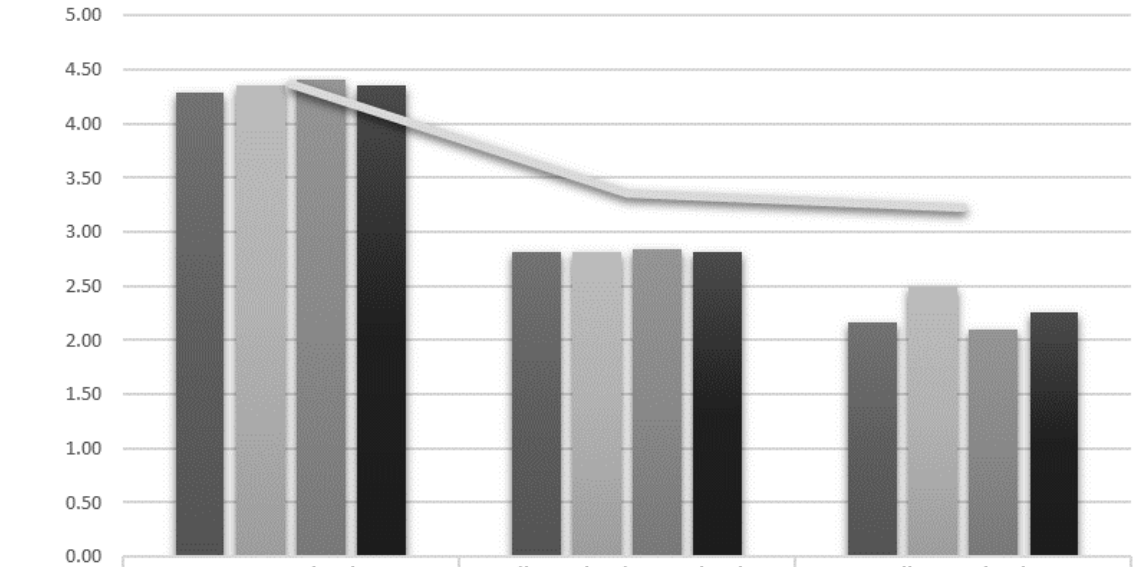
Caption: ESG – ESG Maturity Level; OP – Organizational Performance. *Source:* research data (2024).

There is a predominance of Level 3 maturity, reached by 60.0% of the organizations participating in this research, which determines that in these organizations ESG governance practices are formally implemented (documented), but there are some flaws in their execution. It is worth noting that 30% of organizations are at Level 4 of maturity of ESG governance practices, that is, the practices are completely implemented in one or more areas, with established indicators and planned results being achieved.

It is also verified that large companies (gross revenue of over 20 million), comprising the grouping of the three dimensions of ESG governance (Environmental Governance; Social Governance; and Corporate Governance), have the highest total average value of 4.35 in the Maturity level 4 among the companies surveyed by organizational size (Figure 6).

Figure 6

ESG maturity level and organizational performance by organizational dimension and size



	Large organizations	Medium-sized organizations	Small organizations
EG	4.29	2.82	2.17
SG	4.35	2.82	2.50
CG	4.40	2.84	2.10
Tot	4.35	2.82	2.26
OP	4.36	3.36	3.22

Caption: EG – Environmental Governance; SG - Social Governance; CG - Corporate Governance; Tot – Total; OP – Organizational Performance. *Source:* research data (2024).

On Table 9 it can be seen, both by market segment and size, that the higher the level of maturity of ESG governance practices, the higher the level of organizational performance.

The results of this study corroborate those of Daugaard and Ding (2022), Chen and Xie (2022), Fatemi, Glaum and Kaiser (2018) and Yoo and Managi (2021), who mention that the higher the maturity level of practices Environmental, Social and Governance [ESG], the higher the level of organizational performance will be.

In agreement with the results obtained in this research, Díaz, Ibrushi and Zhao (2021) and Kanamura (2021) demonstrated in their research that a set of ESG standards and good practices obtain different advantages among other competitors, with a relevant improvement in perception of public services in addition to financial advantages and the creation of standards to better measure organizational performance.

Measuring ESG practices, according to Giese *et al.* (2019), strengthens performance evaluation and stakeholders' perception of the organization, which contributes to the sustainable development of the business. According to Gao *et al.* (2021) and Duque-Grisales

and Aguilera-Caracuel (2021) ESG practices support the organization to have a vision of long-term performance. For Humphrey, Lee and Shen (2012), each ESG axis must be understood, measured and evaluated separately, as business practices and policies may differ on the level of maturity of each axis, which may generate different demand and organizational performance.

Table 9

Level of maturity of ESG governance practices and organizational performance by market segment and organizational size

Market Segment	Dimension Environmental Governance	Social Governance	Corporate Governance	Total	Maturity Level	Dimension Organizational Performance	No. of Respondents
Pulp and Paper	4.66	4.70	4.74	**4.70**	N-4	4.58	28
Foods	4.41	4.43	4.52	**4.46**	N-4	4.50	18
Chemical	4.09	4.06	4.03	**4.06**	N-4	4.26	7
Storage and Transportation	3.80	3.80	4.20	**3.93**	N-3	4.00	3
Others	3.43	3.83	3.67	**3.64**	N-3	3.94	6
Services	3.17	3.53	3.53	**3.41**	N-3	3.96	6
Metal Mechanics	3.40	3.30	3.20	**3.30**	N-3	3.67	4
Port sector	3.27	3.33	3.20	**3.27**	N-3	3.50	3
Forestry	2.93	3.20	3.13	**3.09**	N-3	3.25	3
Textile	2.86	2.78	2.76	**2.80**	N-2	3.28	10
Overall Total	**3.98**	**4.05**	**4.06**	**4.03**	**N-4**	**4.16**	**88**

Organizational Size	Dimension Environmental Governance	Social Governance	Corporate Governance	Total	Maturity Level	Dimension Organizational Performance	No. of Respondents
Large size (Greater than R$300 million)	4.29	4.35	4.40	**4.35**	N-4	4.36	72
Medium size (Greater than R$4.8 million and less than or equal to R$300 million)	2.82	2.82	2.84	**2.82**	N-2	3.36	10
Small size (Greater than R$360,000 and less than or equal to R$4.8 million)	2.17	2.50	2.10	**2.26**	N-2	3.22	6
Overall Total	**3.98**	**4.05**	**4.06**	**4.03**	**N-4**	**4.16**	**88**

Source: research data (2024).

It was also verified whether there is alternation between the variables through the average values attributed to ESG governance practices by the size of the organizations surveyed.

Therefore, the non-parametric Wilcoxon-Mann-Whitney test was used for two independent samples. The Wilcoxon-Mann-Whitney test was used to determine whether the differences in the average values attributed to ESG governance practices by market segment and size of organizations are statistically significant. In the Wilcoxon-Mann-Whitney test (U test), p-values less than 0.05 demonstrate that the groups are significantly different.

Regarding the size of organizations, it can be observed that the average values presented for ESG governance practices differ (Table 10), especially when comparing the average values established by large companies with the average values of medium and small companies' size, in all dimensions researched. It can be seen that the larger the organizational size, the greater the level of maturity and uniformity of concepts established between ESG governance practices in the organizations researched.

Table 10

Wilcoxon-Mann-Whitney test: organizational size

***Wilcoxon-Mann-Whitney* (*U Test*)**		**Dimension**			
		Environmental Governance	**Social Governance**	**Corporate Governance**	**Total**
Small and medium size	Result	≠ AV	≅ AV	≠ AV	≠ AV
	p-value	0.027	0.167	0.007	0.005
	U test	31.000	38.500	26.500	25.500
Small and large size	Result	≠ AV	≠ AV	≠ AV	≠ AV
	p-value	0.001	0.001	0.001	0.001
	U test	32.500	35.000	27.500	31.000
Medium and large size	Result	≠ AV	≠ AV	≠ AV	≠ AV
	p-value	0.001	0.001	0.001	0.001
	U test	98.000	85.500	81.000	83.500

Caption: ≠ (Difference); ≅ (Similarity and or equality); AV (Average Value). *Source:* research data (2024).

Final Considerations

Amid the need and concern of organizations to seek solutions to minimize environmental impacts with a view to a more sustainable future, corporate ESG practices have begun to shape the way in which organizations undertake their actions based on socially responsible, ecologically sustainable governance and with good ethical business practices (Baratta *et al.*, 2023; Setiarini *et al.*, 2023). This study aimed to analyze the existence of an

associative relationship between the level of maturity of ESG governance practices and organization performance.

The research showed support from the data for the formulated hypothesis, demonstrating that ESG governance practices have an associative relationship with organizational performance, as the strength of association between the dimensions presented a high and significant coefficient of variation (0.877 / p-value of 0.000), a canonical R^2 of 0.769 considerable and a Wilks' Lambda of 0.226 close to zero, thus confirming the hypothesis of this research.

It was evident that the maturity level of all organizations from different segments based in the Southern Region of Brazil researched considering all the proposed dimensions was the general average value of 4.03, at Level 4 of maturity, that is, governance practices ESG is established and systemic. Among the three dimensions surveyed, Corporate Governance presented the highest average value with Level 4 maturity. Maturity Level 4 predominated among large industries and in the Pulp and Paper, Food and Chemical segments.

It can be observed that the practices: The company has a code of ethics that is disseminated and lived by its employees; The organization ensures compliance with current legislation (rights and duties) with regard to working relationships between employees and employers; The organizational structure is agile, responsive, and adaptive; and The production chain is mapped, selected and/or worked on in accordance with sustainability indicators, obtained the highest average value (between 4.11 and 4.16), at Level 4 of maturity.

It is worth highlighting that ESG practices can be incorporated into corporate strategies in different ways, such as: using ESG pillars to guide decisions; implement robust and transparent governance policies to increase investor and consumer trust; create diversity and inclusion programs, which contribute to a more satisfied, productive and engaged workforce; investing in sustainable practices can mitigate operational risks, such as natural resource scarcity; developing environmentally conscious products and services; among others. In other words, organizations with strong ESG practices generate better financial and reputational value, resilience to crises and stand out in international sustainability rankings, thus adding greater value to businesses.

This study contributed theoretically to the proposition of a model to assess the level of maturity of ESG governance practices in organizations from different segments based in the Southern Region of Brazil. The practical contribution lies in the understanding of ESG governance practices arising from the designed model, offering an instrument for diagnosing maturity, identifying strengths and points that demonstrate weaknesses in implementation or

execution, in addition to the possibility of comparing the results obtained between organizations.

This study was treated with the necessary methodological rigor, although it is necessary to recognize some limitations. The first is related to the sample obtained, as it is a non-probability sample and thus the data cannot be generalized. Another point related to the sample is the modest quantity of respondents.

This research was cross-sectional in nature. Therefore, a specific period of time was verified for investigating the proposed phenomenon. A longitudinal study could be carried out to verify the phenomenon, using a timeline as a way of obtaining information that can attest to the gradual increase or not in the maturity of ESG governance practices and their relationship with the operational performance of the organizations studied.

In future studies, the validity of the results obtained in this research could be improved by extending the sample to a greater number of organizations. Finally, it is suggested to use another research approach, mixed (quantitative and qualitative), for example, allowing the researcher to explore different variables in different contexts, being able to find different results.

References

ABNT – Associação Brasileira de Normas Técnicas. *Pratica Recomendada**:** ABNT PR 2030:22. Ambiental, Social e Governança (EGS) – Conceitos, diretrizes e modelo de avaliação e direcionamento para organizações*. Rio de Janeiro: ABNT, 2022. https://www.abntcatalogo.com.br/pnm.aspx?Q=UXQxbi8zRHdyTWtlRlF6R1VFam0xanVEdmF0dFN2Z0pMZ1gzSGdQeklodz0=

Abubakar, A. M., Elrehail, H., Alatailat, M. A., & Elçi, A. (2019). Knowledge management, decision-making style and organizational performance. *Journal of Innovation & Knowledge, 4*(2), 104-114. https://doi.org/10.1016/j.jik.2017.07.003

Ahlklo, Y., & Lind, C. (2019). E, S or G? *A study of ESG score and financial performance*. Master of Science Thesis. KTH Skolan for Industriell Teknik Och Management.

Alástico, G. P., & Toledo, J. C. D. (2013). Hospital Accreditation: a proposal of framework for implementation. *Gestão & Produção, 20*, 815-831. https://doi.org/10.1590/S0104-530X2013005000011

Almeida, C. S. L., da Silva Gomes, S. M., Azevedo, T. C., Ribeiro, M. A., & Baqueiro, A. G. M. (2013). Gestão de resíduos, desempenho organizacional e logística reversa na construção civil. *Simpósio de Excelência em Gestão e Tecnologia. Resende:[sn*], 01-11. https://www.aedb.br/seget/arquivos/artigos13/21218389.pdf

Amcham Brasil. (2024). *Estudo sobre sustentabilidade e ESG no Brasil: Avanços e desafios para as empresas brasileiras.* https://www.amcham.com.br

Anwar, K. (2017). Analyzing the conceptual model of service quality and its relationship with guestsâ€™ satisfaction: a study of hotels in erbil. *The International Journal of Accounting and Business Society, 25*(2), 1-16. https://doi.org/10.21776/ub.ijabs.2017.25.2.01

Archer, M. (2024). Governing through ESG and the green spirit of asset manager capitalism. *Environment and Planning A: Economy and Space, 56*(2), 662-678. https://doi.org/10.1177/0308518X231156611

Atchabahian, A. C. R. C. (2024). *ESG: Teoria e prática para a verdadeira sustentabilidade nos negócios*. 1ª edição. Editora Saraiva, 215 p.

Baratta, A., Cimino, A., Longo, F., Solina, V., & Verteramo, S. (2023). The impact of ESG practices in industry with a focus on carbon emissions: Insights and future perspectives. *Sustainability, 15*(8), 6685. https://doi.org/10.3390/su15086685

Barbosa, R. D. A. (2019). *Alinhamento da materialidade à distribuição de valor aos stakeholders e sua relação com o desempenho*. Tese de Doutorado em Administração, Universidade de São Paulo – USP, São Paulo/SP.

Barra, G. M. J., & Ladeira, M. B. (2017). Maturity model for certification process in agroindustrial system coffee. *REGE-Revista de Gestão, 24*(2), 134-148. http://dx.doi.org/10.1016/j.rege.2017.03.004

Báscolo, E., Yavich, N., & Sánchez de León, A. (2006). El proceso de interacción investigadores y tomadores de decisiones: un estudio de caso. *Cadernos de Saúde Pública, 22*, S47-S56. https://doi.org/10.1590/S0102-311X2006001300014

Billio, M., Costola, M., Hristova, I., Latino, C., & Pelizzon, L. (2021). Inside the ESG ratings:(Dis) agreement and performance. *Corporate Social Responsibility and Environmental Management, 28*(5), 1426-1445. https://doi.org/10.1002/csr.2177

BNDES - Banco Nacional de Desenvolvimento Econômico e Social. (2024). *Classificação de porte conforme a Receita Operacional Bruta (ROB) das empresas.* https://www.bndes.gov.br/wps/portal/site/home/financiamento/guia/porte-de-empresa

Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel selection in organizations. San Francisco: Jossey-Bass*, 71-98. https://digitalcommons.usf.edu/psy_facpub/1111

Bortoluzzi, S. C., Ensslin, S. R., & Ensslin, L. (2010). Performance Evaluation of Tangible and Intangible Aspects of the Market Area: a case study in a medium industrial company. *Revista brasileira de gestão de negócios, 12*, 425-446. https://doi.org/10.7819/rbgn.v12i37.726

Bresciani, S., Ferraris, A., Santoro, G., & Nilsen, H. R. (2016). Wine sector: companies' performance and green economy as a means of societal marketing. *Journal of Promotion Management, 22*(2), 251-267. https://doi.org/10.1080/10496491.2016.1121753

Burmester, H., Pereira, J. C. R., & Scarpi, J. M. (2007). Management model for healthcare organizations. *Rev.adm. saúde*, 125-132. https://pesquisa.bvsalud.org/portal/resource/pt/ses-9775

Caralli, R., Knight, M., & Montgomery, A. (2012). Maturity models 101: A primer for applying maturity models to smart grid security, resilience, and interoperability. *Software engineering institute: Carnegie Mellon University*. https://gridwiseac.org/pdfs/forum_papers12/knight_paper_gi12.pdf

Cars, M., & West, E. E. (2015). Education for sustainable society: attainments and good practices in Sweden during the United Nations Decade for Education for Sustainable Development (UNDESD). *Environment, Development and Sustainability, 17*, 1-21. https://doi.org/10.1007/s10668-014-9537-6

Carvalho, A. J. V. (2016). *Modelo de Maturidade para a Gestão dos Sistemas de Informação Hospitalares.* Doutoramento en Investigación en Tecnoloxías da Información, Universidade de Santiago de Compostela – USC, Santiago de Compostela, Espanha.

Carvalho, J. V., Rocha, Á., & Abreu, A. (2019). Maturity of hospital information systems: Most important influencing factors. *Health informatics journal*, *25*(3), 617-631. https://doi.org/10.1177/1460458217720054

Carvalho, V. J. R. (2015). *Das razões da utilização do EBITDA por profissionais de mercado: uma contribuição prática.* Dissertação de Mestrado em Controladoria Empresarial. Universidade Presbiteriana Mackensi. São Paulo/SP.

Chandler Jr, A. D. (1969). Strategy and structure: *Chapters in the history of the American industrial enterprise* (Vol. 120). MIT press. https://s3.amazonaws.com/arena-attachments/705027/a973f694aaaee073aeb1cfce037f3b11.pdf

Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. *International Review of Financial Analysis*, *83*, 102291. https://doi.org/10.1016/j.irfa.2022.102291

Chiesa, V., Coughlan, P., & Voss, C. A. (1996). Development of a technical innovation audit. *Journal of Product Innovation Management: an international publication of the product development & management association*, *13*(2), 105-136. https://doi.org/10.1111/1540-5885.1320105

Combs, J. G., Russell Crook, T., & Shook, C. L. (2005). The dimensionality of organizational performance and its implications for strategic management research. In *Research methodology in strategy and management*, *2*(5), 259-286. Emerald Group Publishing Limited. https://doi.org/10.1016/S1479-8387(05)02011-4

Corrar, L., Paulo, E., Dias Filho, J. M., & Rodrigues, A. (2014). *Análise multivariada para os cursos de administração, ciências contábeis e economia*. 1ª edição. Editora Atlas, 568 p.

Costa, E., & Ferezin, N. B. (2021). ESG (Environmental, Social and Corporate Governance) e a comunicação: o tripé da sustentabilidade aplicado às organizações globalizadas. *Revista Alterjor*, *24*(2), 79-95. https://orcid.org/0000-0002-3416-3815

Crosby, P. B. (1979). *Quality is free: The art of making quality certain*. First Edition. Publisher McGraw-Hill, 309 p.

Cruz, A. (2021). *Introdução ao ESG: Meio Ambiente, Social e Governança Corporativa*. 2ª edição. Editora Scortecci, 160 p.

Curtice, R. M. (2006). Stakeholder analysis: the key to balanced performance measures. *BP Trends, April*, 1-7. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=71157e67cd40ebaeb8287e75402deca829c7edb5

Dalal, K. K., & Thaker, N. (2019). ESG and corporate financial performance: A panel study of Indian companies. *IUP Journal of Corporate Governance, 18*(1), 44-59. https://www.researchgate.net/publication/371177996_ESG_and_Corporate_Financial_Performance_A_Panel_Study_of_Indian_Companies

Daugaard, D., & Ding, A. (2022). Global drivers for ESG performance: The body of knowledge. *Sustainability*, *14*(4), 2322. https://doi.org/10.3390/su14042322

Díaz, V., Ibrushi, D., & Zhao, J. (2021). Reconsidering systematic factors during the COVID-19 pandemic–The rising importance of ESG. *Finance Research Letters, 38*, 101870. https://doi.org/10.1016/j.frl.2020.101870

Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multilatinas: Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics*, *168*(2), 315-334. https://doi.org/10.1007/s10551-019-04177-w

Durst, S., Hinteregger, C., & Zieba, M. (2019). The linkage between knowledge risk management and organizational performance. *Journal of Business Research*, 105, 1-10. https://doi.org/10.1016/j.jbusres.2019.08.002

Elmaallam, M., & Kriouile, A. (2013). Toward a maturity model development process for information systems (MMDePSI). *International Journal of Computer Science Issues (IJCSI)*, *10*(3), 118.https://www.semanticscholar.org/paper/Toward-a-Maturity-Model-Development-Process-for-Elmaallam-Kriouile/9846dbf5d2b671262b6550236950a4a469812628

Escrig-Olmedo, E., Fernández-Izquierdo, M. Á., Ferrero-Ferrero, I., Rivera-Lirio, J. M., & Muñoz-Torres, M. J. (2019). Rating the raters: Evaluating how ESG rating agencies integrate sustainability principles. *Sustainability*, *11*(3), 915. https://doi.org/10.3390/su11030915

Esmail, L., Moore, E., & Rein, A. (2015). Evaluating patient and stakeholder engagement in research: moving from theory to practice. *Journal of comparative effectiveness research*, *4*(2), 133-145. https://doi.org/10.2217/cer.14.79

Essmann, H. E. (2009). *Toward innovation capability maturity*. Doctoral dissertation, PhD Thesis. Stellenbosch University – SU, Stellenbosch, South Africa,

Facione, P. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction* (The Delphi Report). American Philosophical Association, Newark, Del, 112 p.

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global finance journal*, *38*, 45-64. https://doi.org/10.1016/j.gfj.2017.03.001

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods*, *41*(4), 1149-1160. https://doi.org/10.3758/BRM.41.4.1149

Fávero, L. P. L., & Belfiore, P. P. (2017). *Manual de Análise de Dados - Estatística e Modelagem Multivariada com Excel®, SPSS® e Stata®*. 1ª edição. Editora GEN LTC, 1216 p.

FGV – Fundação Getúlio Vargas. (2024). *ESG: Anuário revela as 100 empresas que lideram a sustentabilidade no Brasil*.https://integridadeesg.insightnet.com.br/anuario-integridade-ESG-2024.pdf

FIA/USP - Fundação Instituto de Administração (USP). (2023). *Compliance: entenda o que é, tipos e como aplicar nas empresas*? FIA Business School. https://fia.com.br/blog/compliance/

Fraser, P., Moultrie, J., & Gregory, M. (2002). The use of maturity models/grids as a tool in assessing product development capability. In *IEEE international engineering management conference* (Vol. 1, pp. 244-249). IEEE. https://10.1109/IEMC.2002.1038431

Freeman, R. E. (2017). Five challenges to stakeholder theory: A report on research in progress. In *Stakeholder management* (Vol. 1, pp. 1-20). Emerald Publishing Limited. https://doi.org/10.1108/S2514-175920170000001

Gao, S., Meng, F., Gu, Z., Liu, Z., & Farrukh, M. (2021). Mapping and clustering analysis on environmental, social and governance field a bibliometric analysis using Scopus. *Sustainability*, *13*(13), 7304. https://doi.org/10.3390/su13137304

Gericke, R. C., Gericke, & Torregrosa. (2018). *Corporate governance and risk management in financial institutions*. Springer International Publishing Ag, Part Of Springer Nature. https://doi.org/10.1007/978-3-319-67311-0

Giese, G., Lee, L. E., Melas, D., Nagy, Z., & Nishikawa, L. (2019). Foundations of ESG investing: How ESG affects equity valuation, risk, and performance. *The Journal of Portfolio Management*, *45*(5), 69-83. https://doi.org/10.3905/jpm.2019.45.5.069

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*, *66*, 101889. https://doi.org/10.1016/j.jcorpfin.2021.101889

Gomes Júnior, F. S. (2012). Desenvolvimento Sustentável: conceitos, modelos e propostas para mensurações. *Revista Ambientale*, *3*(3), 85-98. https://periodicosuneal.emnuvens.com.br/ambientale/article/view/87

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. 6ª edição. Editora Bookman, 688 p.

Haire, M. (1959). Biological models and empirical histories of the growth of organizations. *Ekistics*, 263-269. https://gwern.net/doc/sociology/1959-haire.pdf

Hamann, P. M., & Schiemann, F. (2021). Organizational performance as a set of four dimensions: An empirical analysis. *Journal of Business Research, 127*, 45-65. https://doi.org/10.1016/j.jbusres.2021.01.012

Hamann, P. M., Schiemann, F., Bellora, L., & Guenther, T. W. (2013). Exploring the dimensions of organizational performance: A construct validity study. *Organizational research methods, 16*(1), 67-87. https://doi.org/10.1177/1094428112470007

Hill, J. (2020). Environmental, Social, and Governance (ESG) investing: A balanced analysis of the theory and practice of a sustainable portfolio. 1st edition. Publisher Academic Press, 370 p.

Hronec, S. M. (1994). Sinais vitais: usando medidas do desempenho da qualidade, tempo e custo para traçar a rota para o futuro de sua empresa. 1ª edição. Editora Makron books, 240 p.

Humphrey, J. E., Lee, D. D., & Shen, Y. (2012). Does it cost to be sustainable?. *Journal of Corporate Finance, 18*(3), 626-639. https://doi.org/10.1016/j.jcorpfin.2012.03.002

Humphrey, W. S. (1999). Pathways to process maturity: The personal software process and team software process. *SEI Interactive, 2*(2), 1-17. https://www.academia.edu/9604756/Pathways_to_Process_Maturity_The_Personal_Software_Process_and_Team_Software_Process

Irikefe, P. O. (2021). Effect of objectives and key results (OKR) on organizational performance in the hospitality industry. *International Journal of Research Publication, 91*(1), 185-195. https://doi.org/10.47119/IJRP1009111220212596

Ishaq Bhatti, M., Awan, H. M., & Razaq, Z. (2014). The key performance indicators (KPIs) and their impact on overall organizational performance. *Quality & Quantity, 48*, 3127-3143. https://doi.org/10.1007/s11135-013-9945-y

Jabbour, C. J. C., Freitas, W. R. D. S., Teixeira, A. A., & Jabbour, A. B. L. D. S. (2012). Human resource management and operational performance: empirical evidence. *Gestão & Produção, 19*, 347-360. https://doi.org/10.1590/S0104-530X2012000200009

Johnston, D. A., McCutcheon, D. M., Stuart, F. I., & Kerwood, H. (2004). Effects of supplier trust on performance of cooperative supplier relationships. *Journal of operations Management, 22*(1), 23-38. https://doi.org/10.1016/j.jom.2003.12.001

Jung, C. S., & Lee, G. (2013). Goals, strategic planning, and performance in government agencies. *Public Management Review, 15*(6), 787-815. https://doi.org/10.1080/14719037.2012.677212

Kanamura, T. (2021). Risk mitigation and return resilience for high yield bond ETFs with ESG components. *Finance Research Letters, 41*, 101866. https://doi.org/10.1016/j.frl.2020.101866

Kaplan, R. S., & Norton, D. P. (2006). *Alignment: Using the balanced scorecard to create corporate synergies*. 1st edition. Harvard Business Press Publisher, 320p.

Kaplan, R. S., & Norton, D. P. (1992). *The balanced scorecard: measures that drive performance*. 1st edition. Harvard Business Review Press Publisher, 64 p.

Kendall, G. I. (2007). *Visão viável: transformando o faturamento em lucro líquido*. 1ª edição. Editora Bookman, 160 p.

Kirrane, J. F. (2009). *Dimensions of growth: A Maturity Model for continuous quality improvement of a clinical*. Doctoral dissertation. College of Business, Public Policy and Law, National University of Ireland, Galway, Ireland.

Kolukısa Tarhan, A., Garousi, V., Turetken, O., Söylemez, M., & Garossi, S. (2020). Maturity assessment and maturity models in health care: A multivocal literature review. *Digital health, 6*, 2055207620914772. https://doi.org/10.1177/2055207620914772

Koroleva, E., Baggieri, M., & Nalwanga, S. (2020). Company performance: Are environmental, social, and governance factors important. *International Journal of Technology*, *11*(8), 1468-1477. https://doi.org/10.14716/ijtech.v11i8.4527

Lavin, J. F., & Montecinos-Pearce, A. A. (2021). ESG disclosure in an emerging market: an empirical analysis of the influence of board characteristics and ownership structure. *Sustainability*, *13*(19), 10498. https://doi.org/10.3390/su131910498

Liao, H. T., Pan, C. L., & Zhang, Y. (2023). Collaborating on ESG consulting, reporting, and communicating education: Using partner maps for capability building design. *Frontiers in Environmental Science, 11*, 1119011. https://doi.org/10.3389/fenvs.2023.1119011

Lopes, M. A., & Hupalo, L. (2024). Avaliação dos indicadores de ESG das empresas de Santa Catarina atendidas pelo Programa Brasil Mais Produtivo. *Navus-Revista de Gestão e Tecnologia, 14*, 1-15. https://doi.org/10.22279/navus.v14.1922

Manrique, S., & Martí-Ballester, C. P. (2017). Analyzing the effect of corporate environmental performance on corporate financial performance in developed and developing countries. *Sustainability*, *9*(11), 1957. https://doi.org/10.3390/su9111957

Marques, J. B. V., & de Freitas, D. (2018). The DELPHI method: characterization and potentialities for educational research. *Pro-Posições*, *29*(2), 389. https://doi.org/10.1590/1980-6248-2015-0140

Martins, J. A. R. C. (2015). *Gestão de expetativas de partes interessadas: proposta de modelo*. Dissertação de Mestrado em Engenharia e Gestão Industrial, Universidade Nova Lisboa, Lisboa, Portugal

Matsue, C. (2022). Estudo mostra quais são as empresas campeãs em ESG do Brasil na opinião de consumidores. *Valor Investe*.

https://valorinveste.globo.com/mercados/renda-variavel/empresas/noticia/2022/06/15/estudo-mostra-quais-sao-as-empresas-campeas-em-esg-do-brasil-na-opiniao-de-consumidores.ghtml

Memon, M. A., Ting, H., Cheah, J. H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample size for survey research: review and recommendations. *Journal of Applied Structural Equation Modeling, 4*(2), 1-20. https://doi.org/10.47263/JASEM.4(2)01

Nascimento, J. O. (Ed.). (2021). *ESG o cisne verde eo capitalismo de stakeholder: a tríade regenerative do futuro global*. 1ª edição. Editora Thomson Reuters, 1089p.

Oliver, R. L. (2014). *Satisfaction: A behavioral perspective on the consumer: A behavioral perspective on the consumer*. 2nd edition. Publisher Routledge, 544 p.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization studies*, *24*(3), 403-441. https://doi.org/10.1177/0170840603024003910

Paladini, E. P. (2011). *Avaliação Estratégica Da Qualidade*. 2ª edição. Editora Atlas, 256p.

Pavão, Y. M. P., & Rossetto, C. R. (2015). Stakeholder management capability and performance in Brazilian cooperatives. *Revista brasileira de gestão de negócios, 17*(55), 870-889. https://doi.org/10.7819/rbgn.v17i55.2125

Peixoto, M. G. M., Musetti, M. A., & Mendonça, M. C. A. (2016). Pesquisa bibliográfica sob a perspectiva do método de revisão sistemática: proposta de contextualização do desempenho de organizações hospitalares. *In Anais. João Pessoa, PB: Escola de Engenharia de São Carlos, Universidade de São Paulo-USP*.

Picchiai, D. (2009). *Parâmetros e indicadores de dimensionamento de pessoas.* Relatório 25/2009. GV Pesquisas. Fundação Getúlio Vargas, Escola de Administração de Empresas de São Paulo. São Paulo. https://bibliotecadigital.fgv.br/dspace/handle/10438/13427

Pinheiro, R. D. G. (2023). *Impacto no desempenho de índices ESG: um estudo comparativo no Brasil e em mercados internacionais*. Mestrado em Administração e Controladoria. Universidade Federal do Ceará – UFC. Fortaleza/CE.

Pirozzi, M. (2019). *The stakeholder perspective: Relationship management to increase value and success rates of projects*. 1st edition. Publisher Taylor & Francis, 170 p.

Popova, O. H. (2020). Inclusive development: a new concept or an update of the sustainable development concept?. *Economy and forecasting, 1*, 112-123. https://doi.org/10.15407/econforecast.2020.01.112

Prahinski, C., & Benton, W. C. (2004). Supplier evaluations: communication strategies to improve supplier performance. *Journal of operations management, 22*(1), 39-62. https://doi.org/10.1016/j.jom.2003.12.005

PRI – Principles for Responsible Investment. (2019). *PRI Reporting Framework 2019: Strategy and Governance*. https://www.unpri.org/Uploads/x/a/b/strategyandgovernance2019_501247.pdf

PROPMARK. (2023). *Quantas empresa no Brasil possuem prática de ESG em suas estratégias*. https://propmark.com.br/78-4-das-empresas-do-brasil-inseriram-esg-nas-estrategias-diz-pesquisa/

Puzzonia, M. (2018). The Impact of ESG Investment, How Company and University can Collaborate to Realize It with Local Innovation. *Journal of Intercultural Management*, *10*(3), 171-194. https://doi.org/10.2478/joim-2018-0022

Ramos, A. W., & Miyake, D. I. (2010). Desenvolvendo indicadores de produtividade e qualidade em hospitais: uma proposta de método. *Produto & Produção, 11*(2). https://doi.org/10.22456/1983-8026.7517

Ringle, C. M., Da Silva, D., & de Souza Bido, D. (2014). Structural equation modeling with the SmartPLS. *REMark-Revista Brasileira de Marketing*, *13*(2), 56-73. https://doi.org/10.5585/remark.v13i2.2717

Röglinger, M., Pöppelbuß, J., & Becker, J. (2012). Maturity models in business process management. *Business process management journal*, *18*(2), 328-346. https://doi.org/10.1108/14637151211225225

Rossi, V. S. L., Triches, D., Camargo, M. E., da Motta, M. E. V., & Priesnitz, M. C. (2024). Renewable energies for sustainable organizational development. *Revista de Gestão e Secretariado*, *15*(1), 1550-1566. https://doi.org/10.7769/gesec.v15i1.3436

Ruiz-Blanco, S., Romero, S., & Fernandez-Feijoo, B. (2022). Green, blue or black, but washing–What company characteristics determine greenwashing?. *Environment, Development and Sustainability*, *24*(3), 4024-4045. https://doi.org/10.1007/s10668-021-01602-x

Salvo, M. A. (2022). *O que é ESG: Environmental, Social, and Corporate Governance*. Ebook Sankhya. https://www.sankhya.com.br/blog/o-que-e-esg-environmental-social-and-corporate-governance/

Schout, D., & Novaes, H. M. D. (2007). Do registro ao indicador: gestão da produção da informação assistencial nos hospitais. *Ciência & Saúde Coletiva*, *12*, 935-944. https://doi.org/10.1590/S1413-81232007000400015

Setiarini, A., Gani, L., Diyanty, V., & Adhariani, D. (2023). Strategic orientation, risk-taking, corporate life cycle and environmental, social and governance (ESG) practices: Evidence from ASEAN countries. *Business Strategy & Development*, *6*(3), 491-502. https://doi.org/10.1002/bsd2.257

Shaikh, I. (2022). Environmental, social, and governance (ESG) practice and firm performance: an international evidence. *Journal of Business Economics and Management*, *23*(1), 218-237. https://doi.org/10.3846/jbem.2022.16202

Sherwood, M. W., & Pollard, J. (2023). *Responsible investing: An introduction to environmental, social, and governance investments*. 2nd edition. Publisher Routledge, 241 p.

Silva, P. C. D. (2016). *Avaliação de práticas de produção mais limpa e sua relação com o desempenho organizacional: survey no setor têxtil brasileiro*. Dissertação de Mestrado

em Engenharia de Produção. Universidade Nove de Julho – UNINOVE. São Paulo/SP.

Sklarew, D. (2022). Transparency: Key to Transforming Environmental, Social, and Governance (ESG) to Benefit All. *Environmental Science and Policy*. George Mason University. https://www.researchgate.net/publication/368874555_Transparency_Key_to_Transforming_Environmental_Social_and_Governance_ESG_to_Benefit_All

Slack, N., Chambers, S., & Johnston, R. (2018). *Administração da produção*. 8ª edição. Editora Atlas, 856 p.

Smits, P. A., Champagne, F., Contandriopoulos, D., Sicotte, C., & Préval, J. (2008). Conceptualizing performance in accreditation. *International Journal for Quality in Health Care, 20*(1), 47-52. https://doi.org/10.1093/intqhc/mzm056

Souza, I. P., Bueno, A., Angelo, É. L., & de Almeida Santos, F. (2023). Análise do cálculo do score ESG adotada por bancos e financeiras para a concessão de crédito. *Journal on Innovation and Sustainability RISUS, 14*(1), 129-139. https://doi.org/10.23925/2179-3565.2023v14i1p129-139

Souza, J. P. C, & Barro, L. A. M. (2019). Práticas de governança corporativa e seus efeitos sobre o desempenho organizacional em pequenas empresas**.** *Revista de Empreendedorismo e Gestão de Micro e Pequenas Empresas, 4*(02), 59-78. https://10.20872/24478407/regmpe.v4n2p59-78

Stocker, F., de Souza Moura–FECAP, A., do Sacramento, D. S. S., & dos Santos, E. G. (2019). Managing for stakeholders and the influence on corporate social and financial performance. *Congresso Internacional de Administração – Administração 4.0*, 30 de setembro a 04 de outubro, Ponta Grossa/PR

Tarmuji, I., Maelah, R., & Tarmuji, N. H. (2016). The impact of environmental, social and governance practices (ESG) on economic performance: Evidence from ESG score. *International Journal of Trade, Economics and Finance, 7*(3), 67. https://doi.org/10.18178/ijtef.2016.7.3.501

Trentin, L. (2021). *Modelo de maturidade de gestão de relacionamento com stakeholders e a relação com o desempenho hospitalar.* Tese de Doutorado em Ciências Contábeis e Administração. Universidade Regional de Blumenau - FURB, Blumenau/SC.

Trentin, L., & Tontini, G. (2021). Hospital management maturity models: literature review. *BASE-Revista de Administração e Contabilidade da Unisinos*, 18(3). https://doi.org/10.4013/base.2021.183.01

Trentin, L., Santos, A. J., Batiz, E. C., & Duarte, M. A. T. (2016). Qualidade de vida em uma empresa têxtil: levantamento do nível de satisfação dos funcionários. *Revista ESPACIOS| 37*(7), Año 2016.

Tsang, A., Frost, T., & Cao, H. (2023). Environmental, social, and governance (ESG) disclosure: A literature review. *The British Accounting Review, 55*(1), 101149. https://doi.org/10.1016/j.bar.2022.101149

Van Duuren, E., Plantinga, A., & Scholtens, B. (2016). ESG integration and the investment management process: Fundamental investing reinvented. *Journal of business ethics, 138*, 525-533. https://doi.org/10.1007/s10551-015-2610-8

Vasconcellos, M. J. E. (2002). *Pensamento sistêmico: o novo paradigma da ciência*. 10ª edição. Editora Papirus, 272p.

Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of global responsibility*, *8*(2), 169-178. https://doi.org/10.1108/JGR-11-2016-0029

Vieira, D. K., Detoni, D. J., & Braum, L. D. S. (2006). Indicadores de qualidade em uma unidade hospitalar. *Anais do III SEGeT–Simpósio de Excelência em Gestão e Tecnologia*. https://www.aedb.br/seget/arquivos/artigos06/680_Indicadores%20de%20qualidade%20em%20uma%20Unidade%20Hospitalar.pdf

Vignochi, L., Gonçalo, C. R., & Rojas Lezana, Á. G. (2014). How do hospital managers use performance indicators?. *Revista de Administração de Empresas*, *54*(5), 496-509. https://doi.org/10.1590/S0034-759020140504

Wood, D. J. (1991). Corporate social performance revisited. *Academy of management review*, *16*(4), 691-718. https://doi.org/10.5465/amr.1991.4279616

Yoo, S., & Managi, S. (2022). Disclosure or action: Evaluating ESG behavior towards financial performance. *Finance research letters*, *44*, 102108. https://doi.org/10.1016/j.frl.2021.102108

Zehir, C., Çınar, F., & Şengül, H. (2016). Role of stakeholder participation between transparency and qualitative and quantitive performance relations: an application at hospital managements. *Procedia-Social and Behavioral Sciences*, *229*, 234-245. https://doi.org/10.1016/j.sbspro.2016.07.134