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CONTENTS

ARTIGOS / *ARTICLES* / *ARTICULOS*

E0000-0026 **CONTRIBUTION OF HUMAN RESOURCES MANAGEMENT FOR SUSTAINABILITY**
Contribuição da gestão de recursos humanos para a sustentabilidade
Contribución de la gestión de recursos humanos para la sostenibilidad
Carla Curado | Lucía Muñoz-Pascual | Mírian Oliveira | Paulo Lopes Henriques | Helena Mateus Jerónimo

E2021-0299 **IS IT WORTHWHILE FOR ORGANIZATIONS TO HAVE SOCIALLY RESPONSIBLE MANAGEMENT PRACTICES?**
Vale a pena as organizações terem práticas de gestão socialmente responsáveis?
¿Merece la pena que las organizaciones tengan prácticas de gestión socialmente responsables?
Jucelia Appio Frizon | Teresa Eugénio |Ana Sílvia Falcão

E2021-0356 **SUSTAINABLE HUMAN RESOURCE MANAGEMENT PRACTICES AND THE IMPACTSON ORGANIZATIONAL COMMITMENT**
Práticas de gestão sustentável de recursos humanos e os impactos no comprometimento organizacional
Prácticas de Gestión Sostenible de Recursos Humanos y los Impactosen el Compromiso Organizacional
Denise Genari | Janaina Macke

E2021-0295 **DO RESPONSIBLE PRACTICES ENHANCE EMPLOYEE ORGANIZATIONAL COMMITMENT? A STUDY OF BRAZILIAN TEXTILE COMPANIES**
Práticas responsáveis reforçam o comprometimento organizacional dos empregados? Um estudo das empresas têxteis brasileiras
¿Las prácticas responsables mejoran el compromiso organizacional de los empleados? Un estudio de las empresas textiles brasileñas
Giselle Cavalcante Queiroz | Mônica Cavalcanti Sá de Abreu | Sílvia Maria Dias Pedro Rebouças

E2020-1006 **WHY ADOPT A SUSTAINABILITY APPROACH IN CAREER STUDIES? A THEORETICAL ESSAY ABOUT THE FOUNDATIONS AND THE RELEVANCE OF THE DISCUSSION**
Por que adotar a perspectiva da sustentabilidade nos estudos de carreira? Ensaio teórico sobre os pilares e a importância da discussão
¿Por qué adoptar un enfoque de sostenibilidad en los estudios de carrera? Un ensayo teórico sobre los fundamentos y la relevancia de la discusión
Camila Vieira Müller | Angela Beatriz Busato Scheffer

E2021-0331 **ORGANIZATIONAL VALUES AS ENABLERS FOR THE CIRCULAR ECONOMY AND SUSTAINABILITY**
Valores organizacionais como suporte para a economia circular e a sustentabilidade
Valores organizativos como facilitadores de la economía circular y la sostenibilidad
Luisa Lavagnini Barboza | Ana Carolina Bertassini | Mateus Cecilio Gerolamo | Aldo Roberto Ometto

E2021-0101 **OCCUPATIONAL HEALTH AND SAFETY: QUALITY AND DETERMINANTS OF ITS DISCLOSURE IN SUSTAINABILITY REPORTING**
Saúde e segurança no trabalho: Qualidade e determinantes da sua divulgação no relato de sustentabilidade
Salud y seguridad en el trabajo: Calidad y determinantes de su divulgación en los informes de sostenibilidad
Catarina Alves | Maria da Conceição Ramos

E2021-0363 **FROM GREEN TRAINING AND INVOLVEMENT TO ORGANIZATIONAL RATIONALE FOR SUSTAINABILITY: DOES IT IMPROVE INDIVIDUAL GREEN PERFORMANCE?**
Do treinamento e envolvimento verde à lógica organizacional para a sustentabilidade: Melhora-se o desempenho verde individual?
De la capacitación y el compromiso verdes a la lógica organizacional para la sustentabilidad: ¿Mejora el desempeño verde individual?
Valter Luís Barbieri Colombo | Anderson Betti Frare | Ilse Maria Beuren

E2021-0313 **THE THIEF OF TIME AND SOCIAL SUSTAINABILITY: ANALYSIS OF A PROCRASTINATION AT WORK MODEL**
O ladrão do tempo e a sustentabilidade social: análise de um modelo de procrastinação no trabalho
El ladrón del tiempo y la sostenibilidad social: Análisis de un modelo de procrastinación en el trabajo
Pilar Mosquera | Maria Eduarda Soares | Paula Dordio | Leonor Atayde e Melo

E2021-0370 **WHAT ARE THE HUMAN RESOURCES POLICIES AND PRACTICES MOST USED BY COMPANIES WITH THE BEST ESG RATIOS IN BRAZIL?**
Quais são as políticas e práticas em recursos humanos mais utilizadas pelas empresas com melhores índices esg no Brasil?
¿Cuáles son las políticas y prácticas de recursos humanos más utilizadas por las empresas con mejores índices ESG en Brasil?
Melissa Velasco Schleich

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CONTENTS

PENSATA | *ESSAY* | *ENSAYO*

E0000-0027 **ROLE OF HUMAN RESOURCES FOR SME SUSTAINABILITY: WHAT THE LITERATURE SAYS AND WHAT WE CAN EXPECT FOR THE FUTURE**
Papel dos recursos humanos para a sustentabilidade das PME: O que a literatura diz e o que podemos esperar para o futuro
El papel de los recursos humanos para la sostenibilidad de las PYMES: Lo que dice la literatura y lo que podemos esperar para el futuro
Mário Franco, Margarida Rodrigues

PERSPECTIVA | *PERSPECTIVE* | *PERSPECTIVA*

E0000-0028 **SUSTAINABILITY AND THE ROLE OF HUMAN RESOURCE MANAGEMENT**
Sustentabilidade e o papel da gestão de recursos humanos
La sostenibilidad y el papel de la gestión de recursos humanos
Teresa Proença

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CONTRIBUTION OF HUMAN RESOURCES MANAGEMENT FOR SUSTAINABILITY

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Human resource management (HRM) can promote a "sustainability mindset" (Ehnert & Harry, 2012) and contribute to facing the challenges imposed by the difficult management of the economic, social, and environmental spheres. However, there is still a lack of human resources to promote changes for sustainability in organizations (Singh, Olugu, Musa & Mahat, 2018). Thus, in this forum of the *RAE-Revista de Administração de Empresas (Journal of Business Management)*, we invited colleagues to explore the role of green practices in HRM (Jerónimo, Henriques, Lacerda, Silva & Vieira, 2020) and to analyse how HRM contributes to sustainability-oriented performance (Muñoz-Pascual, Galende & Curado, 2020).

The connection between HRM and sustainability invites us to reflect on how HRM practices support organizations in achieving sustainability goals. We believe that this forum was an opportunity for discussion that contributes to the implementation of the United Nations (UN) 2030 Agenda for sustainable development.

Research on employee well-being and inclusion (Barrena-Martínez, López-Fernández & Romero-Fernández, 2019) addresses human resource policies and practices that are naturally multi-stakeholder sensitive and inclusive. Human resource practices contribute to the sustainable careers of employees, so it is particularly interesting to study how to reshape jobs and improve sustainable employability (Ybema, Vuuren & Dam, 2020), while respecting local cultures.

Given the digital transformation that fosters more sustainable organizations (Seele & Lock, 2017) and the search for a change in leadership (Wart, Roman & Pierce, 2016), it is equally relevant

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to reflect on the role of e-leadership and sustainability (İnel, 2019). Considering the technological basis of the working from home situation, we question whether the post-COVID-19 pandemic reality will establish a new logic for HRM that redesigns work to maintain commitment.

Colleagues responded positively, and we were delighted to receive many manuscripts for consideration. The forum brought together the best nine articles, reflecting an acceptance rate of around 30%. We thank all the authors who submitted their work, particularly those who went through several rounds of review until their articles were accepted. It was a hard choice, but we had the precious help of a large group of reviewers from different parts of the world. We are grateful to all of them for the privilege they have given us in getting familiar with the submitted works and accompanying the generous review processes that have further increased the scientific and methodological solidity of the research published in this forum.

This forum brought together very interesting studies with different methodological approaches: theoretical, qualitative, quantitative, and mixed. The topics varied and covered the relationship between sustainable practices in the organizations and the commitment of the organizations' human resources, as well as sustainability and their careers. The topics covered also identified aspects that influence the "green" performance of human resources. We also have a description of the contribution of socially responsible management practices to organizational performance in several dimensions and the strength of organizational values for the implementation of the circular economy and encouragement of sustainability. The articles selected also clarified the "thieves of time," or elements that jeopardize sustainability delaying work-related, and what affects the quality of sustainability.

Main conclusions of the forum

Corporate social responsibility influences organizational commitment as addressed in the article by Giselle Cavalcante Queiroz, Mônica Cavalcanti Sá de Abreu, Sílvia Maria Dias Pedro Rebouças, just as sustainable HRM practices seem to have the same influence on the results of Denise Genari e Janaina Macke. Thus, organizational sustainability options influence employees' commitment, which is a finding that supports the relationship between sustainability and human resource commitment.

Career sustainability (continuity, learning, and balance) contributes to individual prosperity as presented by Camila Vieira Müller and Angela Beatriz Busato Scheffer, just as training and green engagement influence the individual green performance of human resources on the research by Valter Luís Barbieri Colombo, Anderson Betti Frare, Ilse Maria Beuren, resulting in a positive relationship between human resources metrics and ESG indicators, as shown in Melissa Velasco Schleich's study. This evidence demonstrates the close relationship between human resource development and sustainability.

Employees understand management practices aligned with corporate social responsibility as positively impacting the perception a) of health and safety in the workplace; and b) that the

organization interacts and is committed to the community as reported by Jucelia Appio Frizon, Teresa Eugénio, Ana Sílvia Falcão. We also have examples of the importance of soft skills for the transition to the circular economy and the relevance of HRM for sustainability in the article by Luisa Lavagnini Barboza, Ana Carolina Bertassini, Mateus Cecilio Gerolamo, Aldo Roberto Ometto. This evidence shows how people's behavior is related to organizations' sustainability.

However, there are threats to sustainability; soldiering, for instance, was pointed out as a "thief of time," jeopardizing sustainability, increasing stress, and decreasing job satisfaction in the study by Pilar Mosquera, Maria Eduarda Soares, Paula Dordio and Leonor Atayde e Melo. On the other hand, external reporting of sustainability practices is not uniform; we learned that the quality of occupational health and safety reports is influenced by three determinants: a) the geographical origin of the organizations, b) the certification of the occupational health and safety management system, and c) the existence of an external certification in the reports. Reports produced in Northern Europe present a higher quality as supported by the work of Catarina Alves and Maria da Conceição Ramos.

From the published works, we are compelled to conclude that human resource management practices play a fundamental role in the change toward a more sustainable organizational life. In addition, there is a multilevel analysis for these two topics that must be further explored if we want to enrich the understanding of these phenomena. Finally, we are aware of our potential to contribute more, and this was just the start of the journey.

This issue is completed by Isabel Proença's reflection, "Sustainability and the role of HRM," in the section Perspectives, and the Essay "The role of human resources for the sustainability of SMEs: What the literature says and what we can expect for the future" by Mário Franco and Margarida Rodrigues. These two contributions related to the forum's theme complement the collaboration with the *RAE* in the best way.

Finally, we would like to thank *RAE* for the opportunity to contribute. It was a pleasure to follow the process of putting together this forum, and we hope that this issue of *RAE* will contribute to the scientific excellence the journal promotes in academia.

Special thanks

We would like to thank Professor Maria José Tonelli, former Editor-in-Chief of *RAE*, for her positive and enthusiastic reception of the idea of the forum, born in a meeting at ISEG, in Lisbon, in the pre-pandemic reality when meetings ended with a hug.

We also thank Professor Jorge Carneiro, current Editor-in-Chief of *RAE*, for accompanying the entire process, continuing an already initiated project that he inherited when he took over the position. Thank you for your trust.

Finally, we thank the entire editorial team at *RAE*, in particular Denise Francisco Cândido, for the tireless support and prompt responses to every question.

We wish you good health and a pleasant read.

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AUTHOR'S CONTRIBUTION

Carla Curado, Lucía Muñoz-Pascual, Mírian Oliveira, Paulo Lopes Henriques, and Helena Mateus Jerónimo worked on the conceptualization and theoretical-methodological approach, on the theoretical review, on the writing and final writing of the text.

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IS IT WORTHWHILE FOR ORGANIZATIONS TO HAVE SOCIALLY RESPONSIBLE MANAGEMENT PRACTICES?

Vale a pena as organizações terem práticas de gestão socialmente responsáveis?

¿Merece la pena que las organizaciones tengan prácticas de gestión socialmente responsables?

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ABSTRACT

Knowing the employees' perspective is essential for good human resource management. In this investigation we sought to determine whether the employees of Portuguese organizations perceive that management practices are aligned with corporate social responsibility (CSR), and whether these practices affect organizational performance. The methodological design we adopted in this study is characterized as being descriptive and quantitative. Multiple regression analysis reveals that the greatest positive impact on the perception of organizational performance for providing health and safety in the workplace was obtained by way of socially responsible, economic-financial management practices (β=0.327) and from the organization's business strategies being aligned with social responsibility (β=0.277). Among the practices impacting the organization's interaction and commitment to the community, we emphasize brand promotion strategies being aligned with CSR principles (β=0.305), and the organization's business strategies being aligned with its social responsibility (β=0.266).

Keywords: human resources, corporate social responsibility, organizational performance, sustainability, employees.

RESUMO

Conhecer a perspectiva dos colaboradores é fundamental para alinhar uma boa Gestão de Recursos Humanos. Para tanto, buscou-se verificar se os colaboradores de organizações portuguesas percebem a presença de práticas de gestão alinhadas à Responsabilidade Social Corporativa (RSC) e se essas impactam o Desempenho Organizacional (DO). O delineamento metodológico adotado caracteriza-se como um estudo descritivo e quantitativo. Pela análise de regressão múltipla, dá-se ênfase a que o fator com maior impacto positivo sobre a percepção de desempenho da organização, ao proporcionar saúde e segurança no local de trabalho, foram as práticas de gestão econômico-financeira socialmente responsáveis (β=0.327) e as estratégias de negócios da organização alinhadas à responsabilidade social (β=0.277). Entre as práticas que impactam a interação e comprometimento da organização com a comunidade, pode-se enfatizar as estratégias de promoção da marca alinhadas aos princípios da RSC (β=0.305) e, novamente, as estratégias de negócios da organização alinhadas à responsabilidade social (β=0.266).

Palavras-chave: *recursos humanos, responsabilidade social corporativa, desempenho organizacional, sustentabilidade, colaboradores.*

RESUMEN

Conocer la perspectiva de los empleados es esencial para alinear una buena gestión de los recursos humanos. Para ello, se buscó verificar si los empleados de las organizaciones portuguesas perciben la presencia de prácticas de gestión alineadas con la responsabilidad social corporativa (RSC) y si estas impactan en el desempeño organizacional (DO). El diseño metodológico adoptado se caracteriza por ser un estudio descriptivo y cuantitativo. Mediante el análisis de regresión múltiple, se destaca que los factores con mayor impacto positivo en la percepción del desempeño organizacional en la provisión de salud y seguridad en el trabajo fueron las prácticas de gestión económico-financiera socialmente responsables (β=0.327) y las estrategias empresariales de la organización alineadas a la responsabilidad social (β=0.277). Entre las prácticas que impactan en la interacción y el compromiso de la organización con la comunidad, se pueden destacar las estrategias de promoción de la marca alineadas con los principios de la RSC (β=0.305) y, de nuevo, las estrategias empresariales de la organización alineadas con la responsabilidad social (β=0.266).

Palabras clave: *recursos humanos, responsabilidad social corporativa, rendimiento organizativo, sostenibilidad, empleados.*

INTRODUCTION

The concept of corporate social responsibility (CSR) is not new. The discussion about it began in the 1950s (Carroll, 2009), grew stronger in the 1960s, and initiatives intensified in the 1980s and '90s with discussions on environmental issues, which were boosted by the growth in environmental movements. The notion of CSR gained strength in academia when the stakeholders' theory (Freeman, 1984) came into vogue. Since then, issues related to the environment, namely the responsibility of organizations, have been growing substantially within organizations, in the academic community, and with regulatory bodies and professional associations, among others (Mata, Fialho, & Eugénio, 2018).

Since the 2000s CSR has been moving toward integration with strategy, management, and corporate governance. There is also a perceived effort to include stakeholder participation in CSR issues, and considerable evidence exists that scholars and practitioners are taking this social concern seriously. It is often manifested in the form of formal writings, research, conferences, and consultancies (Carroll, 2009), making this a global phenomenon (Organization for Economic Co-operation and Development [OECD], 2011). Many researchers have emphasized the potential enhancements of CSR actions, such as human resource management (Gaudêncio, Coelho, & Ribeiro, 2019).

The principles of stakeholder theory (Freeman, 2010) emphasize the fact that stakeholders are not only affected by the decisions of organizations: they also *affect* these same decisions, thereby guiding managers to satisfy a variety of constituent actors and entities, such as employees, customers, suppliers, and local community organizations, and this can favor the achievement of lasting results (Donaldson & Preston, 1995; Freeman, 1984). Freeman (1984) adds that stakeholders are groups that have legitimate rights vis-à-vis the organization, and may or may not lend legitimacy to the actions of organizations (Donaldson & Preston, 1995).

Legitimacy brings about a general perception or assumption that organizational activities are desirable and appropriate, or appropriate within a socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995). This is so true that Mata et al. (2018) concluded in their studies that stakeholder perception is one of the important areas to explore further as it represents what socially aware employees, customers, and the community expect from organizations, which often goes beyond what is legally required.

Considering the importance of the integration of stakeholders in organizations, the continuous search for establishing lasting bonds, and the premises of the stakeholder theory, we seek to determine if the employees of Portuguese organizations perceive the presence of management practices that are aligned with CSR, and if these practices positively affect the perception of organizational performance.

Despite criticism of the common methods used in behavioral research (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), this study responds to a call from researchers who have argued that more empirical research should be conducted. Much of the empirical research focuses on measuring among other empirical relationships, fo example, the impact of CSR practices on competitive advantage (Nyuur, Ofori, & Amponsah, 2019), corporate image and

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brand awareness (Mubarak, Hamed, & Mubarak, 2019), and financial performance (Sekhon & Kathuria, 2019). This information is corroborated by Vishwanathan, Oosterhout, Heugens, Duran, and Essen (2020) by way of a meta-analysis of evidence taken from 344 empirical studies of CSR that were published between 1978 and 2016. These authors highlight the fact that articles tend to fall under a general conceptual umbrella, and suggest that focused studies should be conducted to isolate and further develop the CSR concept.

In the same vein, when conducting a meta-analysis of publications on CSR, Velte (2021) states that most research focuses on the financial performance of CSR and invites researchers to take a closer look at its other determinants and consequences, including the non-financial consequences. It also seems timely to attempt to understand the underlying mechanisms that link CSR, employee perception and behavior (Gaudêncio et al., 2019; Velte, 2021), because these are rarely included in empirical research on CSR (Velte, 2021), particularly in Portugal (Gaudêncio et al., 2019).

There is still much work to do to identify which CSR practices have an impact on organizational performance and what their effect may be. In an effort to contribute to this end, we opted to conduct a survey with a descriptive design, using a quantitative and cross-sectional approach, which was applied to employees in Portuguese companies. For measurement purposes, we used an instrument related to the management practices (economic-financial, brand, strategic, and image) of organizations that are already aligned with CSR, since the instruments described in the literature generally seek to measure the impact of adopting CSR practices (Mubarak et al., 2019; Nyuur et al., 2019; Sekhon & Kathuria, 2019).

The main contribution of this study for companies is that it indicates employees' perceptions of the importance of management being aligned with CSR principles, since these affect the way employees perceive the company's concern with its organizational performance (health and safety in the workplace), and in a broader sense with society (the organization's commitment to the community). In terms of academia, this study offers a better understanding of the multidimensional interdependence that exists between the constructs of CSR and organizational performance, and provides empirical evidence of these associations.

This study starts by contextualizing CSR and organizational performance and their relationship, following which we describe our methodology. In the subsequent section we present the results and discuss them, and then extract the main conclusions, limitations, and considerations for future research.

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Researchers began discussing social responsibility in business in the late 1920s (Barnard, 1938), although the first book that analyzed the concept of CSR extensively and in depth was only published in the United States in 1953. This work, entitled 'Social responsibilities of the businessman', by Howard Bowen, gave CSR a scientific framework and recognition in academic and organizational areas, and was recognized by several authors as the beginning of the theoretical discussion on the subject (Bowen, 1953).

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CSR was conceptually conceived by Bowen (1953) as a social obligation, i.e., the obligation that organizations have, as centers of power and decision-making *par excellence*, for ideally following a management policy that is in line with the objectives and values of society. This opened the door to the theoretical improvement of the theme and to the emergence of a significant number of researchers dedicated to studying CSR who contributed in the 1960s towards a formalization of the concept (Carroll, 1979).

The issues that were adopted as being important in the 1980s included organizational practices with regard to environmental pollution, employee discrimination, consumer abuses, employee health and safety, the quality of working life, the deterioration in urban life, and the questionable/abusive practices of multinational corporations (Carroll, 2009). The importance of these issues in shaping the "social responsibility agenda for the 1980s" was established by Frederick (2006).

The 1987 Brundtland Report entitled 'Our common future' was a milestone, the point at which organizations started recognizing and using the CSR concept (World Commission on Environment and Development [WCED], 1987). This is the context in which Elkington introduced the 'Triple Bottom Line', a new approach to measuring the success of an organization's activities that considers, besides the traditional financial performance, a company's social and environmental performance (Elkington, 1994). In the social dimension, reference is made to people, and includes relationships with the company's stakeholders, who range from shareholders to community members, and who are affected by the organization's behavior. Also included in this category are employees, customers, and consumers. The environmental dimension includes the effects of the organization on the planet, covering topics such as sustainable supply, the transition to renewable energy, waste reduction, and energy-saving. The financial dimension refers to profit and everything that is included in the organization's financial health, such as reducing production costs, prospecting new markets, and other features that build the organization's equity.

Two alternative theories were important to CSR discussions during the 1980s: stakeholder theory and business ethics (Carroll, 2009). Edward Freeman published his classic book on stakeholder theory in 1984, and although it was classified as having a focus on strategic management, it has had its most substantial impact in recent years in the field of business and society, CSR, and business ethics (Carroll, 2009).

In the opinion of Freeman (2010), organizations are related to multiple actors called stakeholders that are not only *affected by* the decisions of organizations, but also *affect* these same decisions. According to this theory, stakeholders - local communities, employees, investors, suppliers, and customers - have different interests in organizations and produce different impacts that are either positive or negative; the organization is seen as responsible for satisfying these interests (Donaldson & Preston, 1995).

Another theory that came to the fore in the 1980s was business ethics (Carroll, 2009). In several of the existing taxonomies and theories, ethics is considered a dimension of CSR that is not required of organizations, but is certainly expected of them (Carroll, 1979; Sethi, 1975).

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In conceptual terms, Carroll (1979) proposed that organizations have economic and legal responsibilities, but they also have ethical and philanthropic responsibilities, called 'discretionary' responsibilities. Ethical responsibility consists in adopting behaviors that respect the beliefs and values of society, while philanthropic/discretionary responsibilities are obligations assumed by organizations on a voluntary basis. For Carroll, the lack of CSR leads to an increase government regulations, which reduces efficiency. He proposed a pyramid-shaped model that builds on these four structures (from the bottom to the top): economic responsibility, legal responsibility, ethical responsibility, and lastly, philanthropic/discretionary responsibility.

In 2000 the World Business Council for Sustainable Development (WBCSD) defined CSR as the commitment of companies to contribute to sustainable economic development, by working with employees, their families, the local community, and society in general to improve quality of life (WBCSD, 2000). In November 2010 the International Organization for Standardization (ISO), an independent non-governmental entity that is the world's largest producer of voluntary international standards, established the ISO 26000 standard, providing companies and organizations with guidelines for acting in a socially responsible manner (ISO, 2010); and in 2011 the OECD (2011) published the 'Guidelines for multinational enterprises', recommending responsible ways in which business should be conducted.

Corporate Social Responsibility (CSR) and Organizational Performance

The literature on the association between CSR and organizational performance has grown exponentially in recent years (Cuadrado-Ballesteros, Martínez-Ferrero, & García-Sánchez, 2017; Loosemore & Lim, 2016). There is still, however, little understanding of the relationship between CSR and organizational performance in the perception of employees (Loosemore & Lim, 2016).

Within the context of the Triple Bottom Line, Muñoz-Pascual, Curado, and Galende (2019) noted that organizations must be effective, for example, in their communication, human resource practices, management methods, and information sharing, as these all affect their commitment to sustainability.

One of the ideas behind the stakeholders' theory was to propose a way to integrate the economic and social in an aggregate manner. Performance measurements using financial indicators were gradually replaced by management techniques, as in the Resource-Based View (Barney, 1991). Macedo-Soares (2000) presents a categorical model of hard and soft organizational variables that can be used for assessing organizational performance. In the hard categorization, for instance, attention is drawn to the importance of the stakeholders' perception being considered in both the organization's overall performance measurement systems, and in its employee recognition and reward system. In this grouping, the evaluation of organizational performance reflects, for example, on the employees' behavior. In the soft category, emphasis is given to the ethical issues that are expressed in the values practiced by members of the organization, and

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that are oriented toward satisfying several stakeholder groups. Thus, subjective measures can be used for assessing organizational performance, such as the perception of the social subjects of the organization, which this work considers to be the perception of the employees (Rowe, & Morrow Jr., 1999).

The CSR argument presented by Pena et al. (2007) emphasizes the commitment that an organization should have to society, which is expressed through the acts and attitudes that positively affect all its stakeholders, not only outside the organization with society in general, but also inside the organization with its internal public and its employees. In this conceptualization of CSR, a socially responsible organization needs to develop actions in both internal and external spheres. According to Pena et al. (2007), internal CSR focuses on the internal public with regard to matters such as human resource management, occupational health and safety, business ethics, adaptation to changes, and organizational learning, for example.

The performance of employees who perform their tasks under safe work conditions improves, and this facilitates the coordination and achievement of organizational goals. Brown (1996) draws attention to the increased importance of workplace safety in the management field. The European Agency for Safety and Health at Work suggests that if organizations improve their CSR performance and invest in the care of their employees (safety and health at work), performance gains are guaranteed (European Agency for Safety and Health at Work, 2004).

If this is true, we can argue that:

> H1: CSR-aligned management practices that are perceived by employees in a positive way have an impact on the perception that the organization is committed to providing health and safety in the workplace.

This hypothesis is justified because studies in the literature are generally concerned with measuring the employees' perceptions, by providing performance indicators of occupational health and safety management practices. Empirical evaluations are reported of the performance of the company's communication (Evans, Glendon, & Creed, 2007), training, risk perception (Chi, Vu, Thanh, Nguyen, & Van, 2020; Tharaldsen, Olsen, & Rundmo, 2008), the use of safety equipment, standards and procedures (Evans et al., 2007; Tharaldsen et al., 2008), and behavioral safety (Chi et al., 2020).

We were able to identify studies in the Australian aviation industry (Evans et al., 2007), the perceptions of employees in the Norwegian oil industry (Tharaldsen et al., 2008), and more recently the assessment of perceived job insecurity during the Covid-19 pandemic with employees from different business sectors in Vietnam (Chi et al., 2020). Empirical research into the antecedents of employees' perceptions of health and safety at work is still rare, especially relating to Portugal.

The exercise of external CSR, in turn, corresponds to the development of social actions that are directed at a company's various audiences, including its customers, suppliers, and the community in general (Guse, Rossato, Dörr, & Silva, 2013). CSR provides that companies contribute to the development of the local community and society in general (WBCSD, 2000), a practice that has been used by companies since the late nineteenth century (Carroll, 2009). Asif, Searcy,

Zutshi, and Fisscher (2013) address this issue as a 'bottom-up' approach, indicating the need for companies to care about the needs of the community by providing adequate quality of life. They emphasize that this approach is admirable, because companies need to interact purposefully with disadvantaged stakeholders, such as the local community.

These arguments support our next hypothesis:

> H2: CSR-aligned management practices that are perceived by employees in a positive way have an impact on the perception that the organization interacts with the community and is committed to it.

The inclusion of these hypotheses is justified because according to Leal, Rego, and Coelho (2015), the perception of how the company's management aligns with CSR is important because it influences and stimulates the emotional, attitudinal, and behavioral responses of employees, both individually and collectively. This perception can also help managers plan strategic interventions at the CSR level to elicit better responses from employees. There are also reasons to suppose that employees develop an attitude of organizational 'good citizenship' when they perceive that organizations develop citizenship criteria related not only to them, but also to the environment, the community, customers, and other parties. Brown (1996) also points out that the management field embracing social issues has a potential effect on perceived safety in the workplace.

METHODOLOGICAL PROCESS

This study aimed to determine if the employees of Portuguese organizations perceive CSR practices (independent factors), and if these have a positive impact on the perception of organizational performance (dependent factors). Organizational performance was measured using two sets of variables: the first was the view of internal organizational performance measured by the perception of employees with regard to the performance of the organization in offering health and safety in the workplace; and the second set of variables, taken as the external organizational performance, measures the perception that the organization interacts with the community and is committed to it. To do so we used a survey with a descriptive design, which adopted a quantitative approach, and was cross-sectional.

We employed structured questionnaires to collect data from primary data sources. The first phase – developing the instrument – began with the survey of the literature pertinent to the theme. As we identified no instrument that was suitable for what we wished to measure, we developed our own. As the authors we constructed a preliminary version of the instrument from the literature. We then used the Delphi technique to validate the instrument's content. Emails were sent to three researchers and three professionals from the people management area inviting them to participate in our project as experts, as recommended by the Delphi technique (Helmer, 1967). The guests were allowed to participate freely, without any restrictions with regard to the nature of their ideas. We then invited the participants to defend their ideas, which led to

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consensus following their participation in validating the content of the items that went to make up the instrument and its structure (face validity).

The structured questionnaire comprised 22 variables that were measured on a 5-point Likert scale (1- I strongly disagree to 5- I strongly agree), of which 14 related to management practices aligned with CSR (listed in Table 1), while 5 related to internal and external OD. Based on guidelines found in the literature, we measured internal organizational performance in terms of the perception of health and safety in the workplace with the following variables: (1) My organization provides good working conditions (air-conditioning, heating, ventilation, noise control, lighting, and space); and (2) My organization informs employees of the risks in the workplace and provides safe conditions. For external organizational performance we asked employees for their perception of performance in terms of the organization's interaction with the community and its commitment to it. This was done using the following variables: (1) My organization believes in working with the main entities in the community in which it is located; (2) My organization believes in the collaborative development of the community in which it is located; and (3) My organization is interested in the creation of collective wealth. The questionnaire was supplemented with variables to identify the respondents' profile, such as: gender, age, education, time in professional activity, and sector of activity of the affiliation company.

In the second phase we sought to validate the instrument semantically, and check whether the variables we used were understandable to the members of the target population, as indicated by Pasquali (2010). To do so we performed a pre-test with an intentional sample of nine subjects, when participants were asked to answer the questions and indicate any possible difficulties encountered in understanding the variables and/or using the scale. We then analyzed the responses of each participant, and any variables that were difficult to comprehend were modified.

After the final instrument had been applied to the research sample, and the data collected and compiled, we conducted convergent validation and internal consistency checks. As recommended by Pasquali (2010), the reliability of an instrument is based on its consistency and accuracy, and the smaller the variation in the measurements of the tool, the greater its reliability.

The National Institute of Statistics (2021) indicated that the employed population in Portugal aged between 16 and 74 years was 4.867,700. As a tolerable sampling error of 6% is acceptable (Levin, 1987), 278 respondents were therefore enough to validate the sample. For the data collection phase, the sample selection strategy was non-probabilistic out of convenience, and the adherence of the Portuguese companies' employees, and so analytical generalization of the results is acceptable (Maciel & Camargo, 2015).

To access potential respondents we asked for assistance from the General Workers' Union (UGT), the General Confederation of Portuguese Workers (CGTP), and all employer confederations, i.e., the Business Confederation of Portugal (CIP), the Confederation of Tourism of Portugal (CTP), the Confederation of Trade and Services of Portugal (CCP), the Confederation of Farmers of Portugal (CAP), and the Portuguese Industrial Association (AIP). We sent an email with the respective link for completion of the questionnaire via Google Docs to the employees of a wide variety of Portuguese companies. The questionnaire was available from October

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23 to November 26, 2019. A total of 300 completed questionnaires were obtained (a number higher than recommended for a tolerable sampling error of 6%), which validated the sample.

Data were processed using Excel and Statistical Package for the Social Sciences (SPSS), version 19. We performed a descriptive analysis to characterize the sample, while multiple regression analysis was used to provide answers to the research hypotheses.

RESULTS

Characterization of the sample

Of the sample surveyed, 51.7% were females and 48.3% were males. Regarding age, there is no concentration of respondents in any single age group, i.e., there was heterogeneity in the sample. The sample comprised individuals who had either completed high school (32%), were undergraduates or had a bachelor's degree (35%), had a Master's degree (20.7%), or had a doctorate (12.3%). The majority had performed functions in the organization for a period of up to five years (30.7%), from 6 to 10 years (23.7%), from 11 to 15 years (17.2%), from 16 to 20 years (8%), from 21 to 25 years (9.7%), and 10.7% had worked in the organization for more than 25 years.

Concerning activity sector, there was a predominance of individuals working in education (9.7%) and manufacturing industries (9.7%), followed by accommodation and catering (9.3%), construction (9.3%), public administration (8.7%), transportation, logistics and distribution (8.7%), agriculture/extractive industry and fishing (8.3%), commerce (8.3%), health and social work (8%), information and communication technologies (8%), banking and insurance (6.3%) and others (5.7%).

We found that 36% of the respondents worked in organizations with fewer than 50 employees, 31.3% between 50 and 200 employees, 32.7% stated that they worked in an organization with more than 200 employees, and most of them worked in Brazilian-owned organizations (81.3%).

Exploratory analysis

Statistical analyses were performed to check the reliability and validity of the research instrument. As the instrument includes reflective indicators, which are more common in psychometric measurements applied to studies of organizational behavior (Maciel & Camargo, 2015), convergent validation was undertaken using exploratory factor analysis procedures, Kaiser-Meyer-Olkin test (KMO), and Bartlett's sphericity. We then composed the factors and analyzed internal consistency using Cronbach's alpha test. Finally, we performed a multicollinearity analysis using Harman's Single Factor, Tolerance, and Variance Inflation Factor (VIF) tests, and Spearman's ρ correlation.

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First, we performed a factor analysis that 'addresses the problem of analyzing the structure of the interrelationships (correlations) between a large number of variables [...] defining a set of common latent dimensions, called factors' (Hair, Anderson, Tatham, & Black, 2005, p. 91). As factor analysis seeks to discover the validity of the questions that make up each factor by correlating and grouping variables, we performed the analysis using the Varimax and Kaiser Normalization methods.

Four factors were formed in data rotation, which demonstrated good adjustment of the empirical data matrix to the theoretical basis. The criterion used to maintain a variable was to consider correlations greater than 0.500, as recommended by Dancey and Reidy (2008). Table 1 reports the rotated principal component analysis matrix and the grouping of the variables into their factors.

Table 1. Rotated component matrix of the exploratory factor analysis

Variables	Components			
	1	2	3	4
My organization uses the CSR concept for public relations.*				
My organization invests in/promotes socially responsible investment funds.	0.664			
My organization understands the link between good financial results and CSR.	0.660			
My organization's market share has increased due to the adoption of CSR strategies.		0.675		
My organization uses CSR to increase its brand acceptance.		0.660		
Due to the adoption of CSR strategies, my organization's brand value has increased.		0.602		
My organization publishes/reports information about its CSR activities.*				
Social responsibility is part of my organization's goals.			0.733	
My organization is motivated by the need to engage with stakeholders in its CSR activities.			0.699	
My organization believes in being a market leader by using CSR strategies.			0.673	
Social responsibility is a concern that is part of the organization's mission, vision, values, and strategy.			0.627	
My organization is passionate about being exemplary when it comes to CSR.				0.696
My organization understands the link between a good public image and CSR.				0.689
My organization is motivated by its CSR practice.*				

Notes: Extraction Method: Principal Component Analysis;

Rotation Method: Varimax with Kaiser Normalization;

* Variables with interactions lower than 0.400 were eliminated.

As a measure of data suitability we chose to apply the KMO and Bartlett's test of sphericity. The KMO test measures the ratio of squared correlations between variables ranging from 0 to 1, with a value close to 1 indicating that correlation patterns are relatively strong (Field, 2009). Bartlett's test of sphericity is a 'statistical test of the overall significance of all correlations in a correlation matrix' (Hair et al., 2005, p. 91): Bartlett's test is expected to be significant, Sig.<0.05 (Field, 2009). The results of this research indicate KMO=0.989, and Bartlett's sphericity, sig.=0.00, which converge with the literature.

In short, exploratory factor analysis resulted in the 14 variables being reduced to 4 factors, which were labeled in accordance with the literature and the content of the variables, as follows:

Factor 1 - Socially responsible economic-financial management practices;

Factor 2 - Brand promotion strategies aligned with CSR principles;

Factor 3 – Organization's business strategy aligned with social responsibility;

Factor 4 - Practices of promoting the image of the organization aligned with CSR.

After labeling, Cronbach's alpha was calculated for analyzing the internal consistency of the factors, which it does by measuring their variables. A reference value that is commonly used by researchers to indicate acceptable reliability is that it should be greater than 0.700 (Hair *et al.*, 2005). In Cronbach's alpha reliability analysis, the intensity of the association of the variables in each factor was verified, and the following indicators were reached: Factor 1, 0.899; Factor 2, 0.924; Factor 3, 0.944, and Factor 4, 0.926.

After defining the factors and labeling them, the multicollinearity analysis was performed to determine whether the independent factors (1, 2, 3, and 4) were correlated. Many regression models assume that multicollinearity should not be present in the data set, as it may indicate that the independent factors have the same explanation as the model being tested (Field, 2009).

Multicollinearity was initially verified by common method bias analysis. Podsakoff *et al.* (2003) clarify that common method bias may occur when: (a) the same type of scale is employed; (b) the response options are the same; and (c) there is cross-sectional data collection. Podsakoff *et al.* (2003), therefore, suggest the use of Harman's Single Factor test. They advise that if the explained variance (sums of the squared loading extraction in a single factor) in factor analysis does not exceed 50%, there is no problem with multicollinearity. All the variables underwent exploratory factor analysis to force the extraction of a single factor, and the accumulated variance in a single factor in this research was 48.9%. To certify that the data did not present multicollinearity, the Tolerance, Variance Inflation Factor (VIF), and Spearman's ρ correlation tests were performed.

The Tolerance test assumes that values greater than 1 do not indicate multicollinearity, from 0.10 to 1 indicate acceptable multicollinearity, and below 0.10 indicates problematic multicollinearity (Hair *et al.*, 2005). The Variance Inflation Factor (VIF) should be less than 10 (the closer to zero, the better). Table 2 presents the indicators of the Tolerance and VIF tests.

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Table 2. Multicollinearity statistics by the Tol. and VIF methods

Factors	Tol.	VIF
Socially responsible economic-financial management practices	0.133	7.494
Brand promotion strategies aligned with CSR principles	0.126	7.947
Business strategy of the organization aligned with social responsibility	0.120	8.311
Practices of image promotion of the organization aligned with CSR	0.110	9.067

The statistics of the Tolerance and VIF tests did not indicate multicollinearity problems, being within the acceptable limits that are common in the literature. Spearman's ρ correlation test, which checks the correlation between two explanatory factors, was also used to verify multicollinearity. Table 3 shows the results of Spearman's ρ correlation test.

Table 3. Spearman's ρ correlation

	1	2	3	4
1. Socially responsible economic-financial management practices	1.000***			
2. Brand promotion strategies aligned with CSR principles	0.772***	1.000***		
3. Organization's business strategy aligned with social responsibility	0.777***	0.768***	1.000***	
4. The organization's image promotion practices aligned with CSR	0.785***	0.771***	0.775***	1.000***

General notes: Number of observations 300;
Probabilistic notes: *** p<0.01, ** p <0.05, * p<0.10

Spearman's ρ correlation analysis identified that there is a statistically significant association ($p<0.01$) between all the explanatory factors. The coefficients were lower than 0.800, which satisfies the validation criteria, i.e., there are no multicollinearity problems. After reaching the validation parameters of the instrument, we then carried out multiple regression analysis.

Multiple regression analysis

We tested the hypotheses using multiple regression analysis, which involves analyzing the relationship between multiple independent factors (explanatory) and one dependent factor (Dancey & Reidy, 2008; Hair *et al.*, 2005). We sought to identify which factors (1, 2, 3, and/or 4) have a significant impact on the two dependent factors, these being: the organization's performance in providing workplace health and safety (Model 1), and the organization's interaction with and commitment to the community (Model 2). This choice is in line with other studies that have employed multivariate statistical tools to test the effect of CSR on organizational performance (Cuadrado-Ballesteros *et al.*, 2017; Gaudêncio *et al.*, 2019).

Table 4 presents the explanatory indicators of Models 1 and 2 in the multiple regression analysis.

Table 4. Results of the regression analysis for models 1 and 2

	Model 1	Model 2
Independent variables	**Dependent variable 1:** Health and safety in the workplace	**Dependent variable 2:** Interaction with and commitment of the organization to the community
Socially responsible economic-financial management practices	β=0.327*** t=5.384 (0.059)	β=0.192*** t=4.691 (0.038)
Brand promotion strategies aligned with CSR principles	β=0.130** t=2.088 (0.064)	β=0.305*** t=7.221 (0.041)
Business strategy of the organization aligned with social responsibility	β=0.277*** t=4.337 (0.066)	β=0.266*** t=6.173 (0.043)
Practices of image promotion of the organization aligned with CSR	β=0.224*** t=3.354 (0.067)	β=0.238*** t=5.289 (0.043)
Constant (*unstandardized*)	β=0.134 ** t=1.545 (0.087)	β=0.085** t=1.515 (0.056)
Z	435.514	1042.33
Standard Error	0.45897	0.29724
R	0.925	0.966
R^2	0.855	0.934
R^2 adjusted	0.853	0.933
p-value (ANOVA)	0.00	0.00
Durbin-Watson	2.051	1.866

General notes: Number of observations 300;
Between relative unstandardized standard error;
Probabilistic notes: *** p<0.01, ** p<0.05, * p<0.10

Before presenting the results of the statistics of the predictors of the models, we checked the prerequisites of the regression analysis. To see if the regression is significant, the result of ANOVA should initially be observed. If the sig. is ≤ 0.05, we can say that at least one of the model factors is important for explaining the dependent factor (Dancey & Reidy, 2008; Hair *et al.*, 2005). The ANOVA test result indicated sig=0.00 for both models, that is, there is evidence of factors that explain the dependent factors. Thus, the hypothesis of no regression is rejected.

To validate the regression model, we also tested for the absence of serial autocorrelation using the Durbin-Watson test. According to Gujarati and Porter (2011), the limits in this test should be between 0 and 4, with the closer to 2 the better. The result of the Durbin-Watson test indicated the absence of serial autocorrelation for both models (Model 1=2.051 and Model 2=1.866), thus rejecting hypothesis H0, i.e., that there is no autocorrelation of residues, or its covariance is zero.

In evaluating the adjustment measures, we observe that the value of the determination coefficient is high. The adjusted R^2 can vary from 0 to 1, the closer to 1 the better, since it indicates that the model explains the variability of the data, demonstrating that the dependent factor is impacted by the independent factors (Field, 2009), i.e., the results show an explanation of 85.3% in Model 1 and 93.3% in Model 2.

DISCUSSION

The result of the regression model analysis enables us to validate Hypothesis 1. H1 predicted that management practices that are aligned with CSR that is perceived in a positive way by employees has an impact on the perception that the organization is committed to providing health and safety in the workplace, and all factors in the model have a significant impact.

The factor with the greatest impact was socially responsible economic-financial management practices (β=0.327, t=5.384, and sig=0.00), followed by the organization's business strategy being aligned with social responsibility (β =0.277, t=4.337, and sig=0.00), and practices for promoting the image of the organization in line with CSR (β=0.224, t=3.354, and sig=0.00), but brand promotion strategies aligned with CSR principles (β=0.130, t=2.088, and sig=0.03) had less impact on the dependent factor.

Literature has suggested that internal CSR strategies and processes are directly linked to employee health, safety and well-being (Yousaf, Ali, Sajjad, & Ilyas, 2016). Loosemore and Lim's (2016) argument that organizations with balanced economic-financial practices and interests are perceived by people as helping build stakeholder engagement seems to have been corroborated in this study. The results presented here emphasize the fact that the socially responsible economic-financial management practices factor had the greatest impact on the perception of organizational performance, significantly influencing the perception that the organization is concerned with providing health and safety in the workplace. This argument was also discussed by Muñoz-Pascual *et al*. (2019) who emphasized the importance of continuously improving the work environment through new investments, as this can lead to the idea of a sustainable organization.

With regard to the impact of Factor 2 (brand promotion strategies aligned with CSR principles) and Factor 3 (the organization's business strategy aligned with social responsibility), the arguments of Oliveira, Portella, Ferreira, and Borba (2016) contribute by emphasizing that organizational strategy is a social communication tool of the organization, specifically when

communicating the mission, vision, and values, because the organization collaborates in the interlocution with stakeholders.

Barney (1991) highlights the fact that reputation can be understood as a resource, a source of value, or a competitive advantage for organizations, and notes that it is one of the resources that contribute either positively or negatively to a company's performance. With regard to the results presented, it is clear that organizations that use CSR practices may perform better and provide health and safety in the workplace. This is also seen in the work of Latif *et al.* (2020), who report evidence showing that organizations need to focus on CSR initiatives, which can help improve the work environment and ensure good ethical conduct within the organization.

Gaudêncio *et al.* (2019) conducted a study to demonstrate how CSR can influence employee attitudes in the context of Portugal. The authors suggest that managers should implement CSR practices and invest in communication and in upgrading the corporate image. This study enriches existing knowledge on social exchange relationships in organizational contexts and responds to the need to understand the underlying mechanisms that link CSR to employees' organizational outcomes by analyzing CSR practices from a holistic stakeholder perspective.

In employee-employer relationships, however, employees would like to be sure that the company will not take advantage of them (Kim, Rhou, Topcuoglu, & Kim, 2020; Su & Swanson, 2019). In this regard, the company's CSR initiatives that have a direct impact on employees can contribute in some way towards meeting their basic needs (Kim *et al.*, 2020), and provide a pathway to their well-being (Su & Swanson, 2019).

The results also support Hypothesis 2. H2 predicted that those management practices that are aligned with CSR and that are positively perceived by employees have an impact on the perception that the organization interacts with and is committed to the community in which it is located. Among those factors that have an impact on performance, emphasis is given to brand promotion strategies aligned with CSR principles (β=0.305, t=7.221, and sig=0.00), followed by the organization's business strategy aligned with social responsibility (β=0.266, t=6.173, and sig=0.00), practices for promoting the image of the organization in line with CSR (β=0.238, t=5.289, and sig=0.00), while a factor that has less impact is socially responsible economic-financial management practices (β=0.192, t=4.691, and sig=0.00).

Hypothesis H2, therefore, is proven since it corroborates Carroll's (1979) assertions by highlighting that organizations that proactively engage in CSR are characterized as having integrating strategies that go beyond the regulatory requirements. These arguments justify the confirmation that brand promotion strategies are aligned with CSR principles.

Based on the legitimacy theory perspective, the social contract between organizations and society is legitimized by corporate actions that are desirable and appropriate (or appropriate within the norms), by its values and by a belief in the social system (Suchman, 1995).

For Oliveira *et al.* (2016), the elements of strategic planning, specifically the establishment of the mission, vision and values, help form a corporate image that represents and confirms the organization's 'sustainable' communication with society. The evidence of this study also suggests what employees expect from their organizations: a demonstration of their social responsibility.

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CONCLUSION

Today, CSR is a priority that organizational leaders and managers cannot ignore. The literature on the association between CSR and organizational performance has grown exponentially in recent years, although research has shown that the relationship between CSR and OD is not universal (Latif *et al*., 2020).

Organizational performance has been a much-debated topic and reflects a general growth of interest in improving management tools, which can measure the results by way of various indicators. As an alternative to the use of financial measures for assessing organizational performance, it is possible to use more subjective measures, such as employees' perceptions (Rowe, & Morrow Jr., 1999), and other measures that were corroborated by the hypotheses of this study.

Having validated the hypotheses, our study offers evidence that management practices aligned with CSR can explain other non-financial organizational performances, as suggested by some authors (Gaudêncio *et al*., 2019; Velte, 2021). Based on a meta-analysis of CSR publications, Vishwanathan *et al*. (2020) suggested researchers should empirically investigate the assumption that CSR has an impact on social good. Specifically in this regard we found evidence that management practices aligned with CSR seem to promote social good (occupational health and safety and support for the local community). Our study, therefore, may lead to further adjustments in the concept of CSR management strategy, as called for by Vishwanathan *et al*. (2020).

This is not a simple task, however, as professionals working in the area of people management operate in a complex world in which their daily experience is of multiple stakeholders, and this requires an ability to balance a variety of activities and results (Macarenhas & Barbosa, 2019). Without favoring any particular views, but rather putting them in dialogue with others that so far have been isolated or are peripheral, we believe that further reflections on the interactions of the people management area with organizational performance and CSR are timely.

This study makes a contribution to the development of the CSR and organizational performance areas from the perspective of employees and, consequently, for the management of organizations. As Macarenhas and Barbosa (2019) argue, people seem to be at the center of the analysis of the field and of organizations, but so far there has been no reflection on their role in sustainable management.

This work has its limitations, as follows: (a) in this article we worked with the perceptions of employees, a process by which the individual organizes and interprets impressions to provide them with meaning in the organization's environment: in their evaluation, an employee may perceive a different reality and provide information that is not representative of the objective reality; and (b) the sample consisted of employees of companies from different economic segments, and the data analyses were performed together, preventing any specific conclusions to be drawn for each individual segment.

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Given the results of this research, future studies could: (a) extend the research to focus on a larger number of respondents in other countries, and in more specific contexts (i.e., a particular sector); (b) add new variables to the model (e.g., from the operational area of organizations); and (c) use other statistical tests and/or indicate discriminant validation to broaden the scope of the study.

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AUTHOR'S CONTRIBUTION

Jucelia Appio Frizon and Teresa Eugénio worked on the conceptualization and theoretical-methodological approach. The theoretical review was conducted by Ana Sílvia Falcão, Jucelia Appio Frizon, and Teresa Eugénio. Data collection was coordinated by Ana Sílvia Falcão. Data analysis included Jucelia Appio Frizon and Teresa Eugénio. All authors worked together in the writing and final revision of the manuscript.

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SUSTAINABLE HUMAN RESOURCE MANAGEMENT PRACTICES AND THE IMPACTS ON ORGANIZATIONAL COMMITMENT

Práticas de Gestão Sustentável de Recursos Humanos e os Impactos no Comprometimento Organizacional

Prácticas de Gestión Sostenible de Recursos Humanos y los Impactos en el Compromiso Organizacional

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ABSTRACT

This paper aims to identify the impact of sustainable human resource management (SHRM) practices on organizational commitment (OC). The study used a sample of 290 employees linked to six companies classified in the Bovespa Sustainability Index. The research hypotheses were tested based on a structural model, using the structural equation modeling (SEM) technique. The results show that SHRM practices are represented by three dimensions: attraction and retention of professionals, maintaining healthy and motivated professionals, and developing the skills of professionals. These practices have a significant and positive impact on affective commitment (AC) and normative commitment (NC). Besides, the AC stands out as a partial mediator of the relationship between SHRM practices and NC.

Keywords: sustainable HRM, SHRM practices, organizational commitment, affective commitment, normative commitment

RESUMO

O objetivo deste artigo é identificar o impacto das práticas de gestão sustentável de recursos humanos (GSRH) no comprometimento organizacional (CO). O estudo utilizou uma amostra de 290 funcionários vinculados a seis empresas classificadas no Índice de Sustentabilidade Empresarial da Bovespa. As hipóteses de pesquisa foram testadas com base em um modelo estrutural, utilizando a técnica de modelagem de equações estruturais (MEE). Os resultados mostram que as práticas de GSRH são representadas por três dimensões: atração e retenção de profissionais, manutenção de profissionais saudáveis e motivados e desenvolvimento de competências dos profissionais. Essas práticas têm um impacto significativo e positivo no comprometimento afetivo (CA) e no comprometimento normativo (CN). Além disso, o CA se destaca como um mediador parcial da relação entre as práticas de GSRH e o CN.

Palavras-chave: *gestão sustentável de recursos humanos, práticas de GSRH, comprometimento organizacional, comprometimento afetivo, comprometimento normativo.*

RESUMEN

El objetivo de este artículo es identificar el impacto de las prácticas de gestión sostenible de recursos humanos (GSRH) en el compromiso organizacional (CO). El estudio utilizó una muestra de 290 empleados vinculados a seis empresas clasificadas en el Índice de Sostenibilidad Empresarial de la Bovespa (Bolsa de Valores de São Paulo). Las hipótesis de investigación se probaron con base en un modelo estructural, utilizando la técnica de modelado de ecuaciones estructurales (MEE). Los resultados muestran que las prácticas de GSRH están representadas por tres dimensiones: atracción y retención de profesionales, manutención de profesionales saludables y motivados y desarrollo de competencias de los profesionales. Esas prácticas tienen un impacto significativo y positivo en el compromiso afectivo (CA) y en el compromiso normativo (CN). Además, el CA se destaca como un mediador parcial de la relación entre las prácticas de GSRH y el CN.

Palabras clave: *gestión sostenible de recursos humanos, prácticas de GSRH, compromiso organizacional, compromiso afectivo, compromiso normativo.*

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INTRODUCTION

Sustainable development has been a relevant topic due to the rapid depletion of natural resources, the concern about wealth disparities in the community, and the importance of corporate social responsibility (Dao, Langella, & Carbo, 2011). As a result, sustainable development has stood out in the business context (Tooranloo, Azadi, & Sayyahpoor, 2017), particularly regarding policies, management strategies, and practices for their implementation (Dyllick & Muff, 2015). In this sense, there is a growing interest in analyzing how human resource management (HRM) can contribute to sustainable business development, focusing on a perspective to improve social well-being and concern for the stakeholders (Ehnert, Parsa, Roper, Wagner, & Muller-Camen, 2016; Kramar, 2014).

The described scenario gives rise to a new paradigm: sustainable human resource management (SHRM). In this perspective, the managers of organizations, especially those managing human resources, must emphasize that organizational effectiveness is not based only on the financial performance of the business; there is a need to encompass factors linked to sustainable development (Boudreau & Ramstad, 2005; Kramar, 2014; Tooranloo et al., 2017).

SHRM can be understood in two strands. The first strand highlights the role that human resource management plays in supporting business sustainability by adopting practices that can influence individuals and groups to develop attitudes and behaviors consistent with the sustainable perspective (Cohen, Taylor & Muller-Camen, 2012). The second strand argues that the principles of sustainability can be incorporated into human resource management practices, providing long-term physical, social, and economic well-being for professionals (Stefano, Bagdadli, & Camuffo, 2018; Taylor, Osland, & Egri, 2012).

On the other hand, the two perspectives can be integrated, considering that human resource management benefits from the premises of sustainability and, concomitantly, assists in implementing its precepts (Guerci & Pedrini, 2014; Macke & Genari, 2019). This view is corroborated by identifying that organizational sustainability depends on employees' understanding of the company's new purpose and mission. Also, human resource management practices are an important indicator for professionals to believe in the organization's effective commitment to sustainability (Mohrman & Shani, 2011).

SHRM is considered a contemporary approach in management and business studies (Prins, Stuer, & Gielens, 2020). Therefore, because it is an emerging perspective, several authors highlight it as an opportunity to develop new conceptual and practical studies to reduce existing research gaps (Ehnert et al., 2016; Macke & Genari, 2019; Tooranloo et al., 2017).

Researchers who discuss the topic also note the urgency of a more holistic approach concerning assessing the sustainability of human resource management practices (Mak, Cheung, Mak & Leung, 2014; Tabatabaei, Omran, Hashemi & Sedaghat. 2017) and a lack of empirical studies (Lange, 2016; Prins et al.,2020). There are research opportunities in the context of developing countries, particularly Brazil, since studies that demonstrate the importance of the human resource management process and its practices as promoters of organizational sustainability are

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incipient regarding theoretical and empirical evidence (Freitas, Jabbour, Mangili, Filho & Oliveira, 2012; Mariappanadar, 2020; Vriend, Said, Janssen, & Jordan, 2020).

Factors such as the acceptance of organizational goals and values, the willingness to dedicate to the company, and the desire to remain in the corporation, are relevant to SHRM practices regarding professionals' commitment (Mowday, Steers, & Porter, 1979). Therefore, commitment influences turnover, turnover intention, and absenteeism (Allen & Meyer, 1990; González & Guillen, 2008; Rego & Cunha, 2008; Kim, Eisenberger, & Baik, 2016). Besides this evidence, no study has yet linked SHRM practices to affective commitment (AC) and normative commitment (NC). Against this backdrop, this study addresses the following research question: What are the impacts of the SHRM practices on organizational commitment?

The research aims to identify the impacts of SHRM practices of Brazilian companies on organizational commitment. The literature review in the next section addresses both concepts and presents the hypothetical relationships between the proposed constructs, offering a conceptual model. The methodology section details the survey method, the sample criteria, and data collection, followed by the analysis and results section. Finally, the discussions, conclusions, and limitations are presented.

THEORY AND HYPOTHESES

This section addresses the Sustainable Human Resource Management (SHRM) practices and their relation to Organizational Commitment (OC). It is important to point out that, in addition to the studies identified from systematic literature reviews, this theoretical framework was elaborated and complemented with articles related to the research themes and books and other relevant publications.

Sustainable Human Resource Management (SHRM) Practices

The strategic perspective of human resource management (HRM) was predominant in the last three decades (Kramar, 2014; Markoulli, Lee, Byington, & Felps, 2017). In this traditional paradigm, HRM activities aim to contribute to the economic goals of the organization, with emphasis on compliance with legal regulations, reduction of lawsuits, minimization of costs per employee, and programs related to employee attitudes and motivation (Boudreau & Ramstad, 2005). Therefore, human resource strategy management is related to a set of practices developed to achieve the company's objectives, mainly in the financial area (Jabbour & Santos, 2008).

The perspective of sustainability has spread in the business sphere in recent years (Dyllick & Muff, 2015), considering that it is impossible to develop a sustainable society without the effective participation of corporations (Schaltegger, Hansen, & Lüdeke-Freund, 2016). This context can be used as a basis for discussing the role of the HRM process for the sustainable development of organizations.

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HRM may relate to organizational sustainability as something to look at when developing processes or considering organizational sustainability as its final goal. In the first case, HRM policies and practices are designed to help develop a mindset and actions to achieve corporate sustainability. In the second case, sustainability principles are embodied in HRM practices, which are designed to provide long-term physical, social, and economic well-being to employees (Taylor et al., 2012). The sustainable management of the company's professionals leads to the sustainability of other resources within the organization (Tooranloo et al., 2017).

Therefore, there are two premises: the role of HRM so that organizations establish and implement strategies for sustainability and the HRM process itself sustainably developed (Cohen et al., 2012; Guerci & Pedrini, 2014; Stefano et al., 2018). In short, HRM concomitantly favors corporate sustainability and benefits from sustainability premises (Järlström, Saru, & Vanhala, 2018).

In this study, SHRM is defined as a set of practices that contribute to the economic, social, and environmental sustainability of a corporation with a long-term vision and promote the well-being, commitment, and satisfaction of professionals. Accordingly, SHRM plays a crucial role in balancing aspects related to the triple bottom line (Cohen et al., 2012). SHRM favors the maintenance and improvement of the well-being of present and future generations, the creation of a harmonious organizational environment, the improvement of the quality of life, and the mitigation of social inequalities (Tooranloo et al., 2017).

The approach to human relations at work evolved to a perspective of quality of life in the organizational environment, which aimed to balance the interests of workers and companies: this perspective sought to align the well-being of employees with productivity, increasing satisfaction and the commitment of individuals to the organization (Boselie, 2010; Deadrick & Stone, 2014).

This view of sustainability embedded in human resource management practices is consistent with the category of studies described by Kramar (2014, p. 8) as "capability reproduction." According to the author, there are studies (Ehnert, 2009; Wilkinson, Hill, & Gollan, 2001) that relate human resource management practices to the internal results of the organization, assuming the contribution of this process to economic, social, and human results from the company.

Researchers addressing this line of thought recognize the negative impact of human resource practices (such as increased work pace, temporary employment, excessive-performance standards, and ambiguous corporate roles) on satisfaction, health, well-being, and in the family and community context in which the employee is inserted (Kramar, 2014; Mariappanadar, 2013; Mariappanadar & Aust, 2017; Prins et al., 2020).

This category of studies also discusses the idea of sustainable work systems (Kramar, 2014). This system typology is based on the following premises: (i) the opportunity of the individual to develop as a person, professional, and member of society through work-related experiences; (ii) economic sustainability depends on social and human sustainability; (iii) sustainability is one of the foundations for social development and; (iv) the sustainability of human and social resources is necessary to ensure ecological sustainability since only people and groups that

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operate sustainably can understand, prioritize, and work toward environmental sustainability (Docherty, Kira, & Shani, 2008).

The sustainability of the HRM process, in which the principles of sustainable development are incorporated into HRM practices, is based on a long-term perspective that enables the attraction, development, and management of employees in a sustainable and socially responsible manner. Consequently, organizations should, for example, select professionals with learning skills, emphasize fairness and workers' rights, develop talents and strengthen working relationships (Becker, 2011). More specifically, SHRM practices should focus on attracting and retaining motivated and talented employees to provide a healthy work environment and development opportunities (Ehnert, 2009; Prins et al., 2020).

Still focusing on the premise that sustainability can be incorporated into HRM practices, three dimensions can be highlighted (Ehnert, 2009; Macke & Genari, 2019). In the first, which is geared toward attracting and retaining talents, the company must develop practices that address the challenges of the labor market, such as the shortage of professionals, the increasing diversity of the workforce in companies within the globalized context, and the changing values of society (Ehnert, 2009).

The presentation of why human resource management is related to the stakeholder theory can be complemented by highlighting how this integration is operationalized (Guerci & Shani, 2014). The management of people with this sort of skills, training managers and teams so they are prepared to interact with stakeholders, the promotion of an organizational environment that helps to mitigate possible conflicts between the corporation and the stakeholders, and the establishment of evaluation systems to assess social performance, and the company relationships with stakeholders are established as guidelines that favor the association of human resource management practices and stakeholder management (Osland & Osland, 2007).

The stakeholder theory establishes that the decision-making process and strategic organizational definitions consider the interests of actors linked to the corporate sphere, reinforcing the possibility of including the stakeholder theory to support the GSRH perspective. Therefore, to address the challenges mentioned and attract and retain professionals, an organization must be recognized as an attractive employer, a place where people want to work and develop their careers. In this dimension, the main practices of SHRM are the development of a challenging and attractive workplace; the recognition of the company as a reliable and socially responsible employer; the appreciation of cultural and gender diversity, with equal opportunities and; the establishment of appropriate reward practices, with a fair definition of the compensation and benefits that will be made available to professionals (Ehnert, 2009; Järlström et al., 2018).

The second dimension is represented by practices that emphasize the maintenance of motivated and healthy professionals. This perspective is important when considering that the company has recruited and selected the workers (Ehnert, 2009). The main actions to retain professionals are the existence of ergonomic conditions in the workplace; the possibility of balancing personal and professional life, adopting practices to prevent stress, and promoting health and safety at work (Ehnert, 2009; Järlström et al., 2018).

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Finally, developing the skills of professionals represents the third dimension of SHRM practices. In this sense, the organization must invest in the workers' skills according to current needs or future demands at an individual, group, and management level. Several actions may be carried out, including tutoring, coaching, mentoring, internships, career plans, succession programs, and vocational qualifications (Boudreau & Ramstad, 2005; Ehnert, 2009).

Combining these three dimensions and their respective practices contributes to an organization's ability to manage its human resources in a sustainable way (Ehnert, 2009). As an example, we mention the promotion of practices that favor the health and well-being of professionals. These activities reinforce the social role of the organization for sustainable development and, at the same time, improve its economic performance by reducing absenteeism, medical expenses, indemnities, and insurance costs. On the other hand, society benefits from improving relationships within the family, considering that work aspects impact the relationship between work and family (Mariappanadar & Aust, 2017).

The literature indicates that SHRM practices are characterized by multidimensionality (Ehnert, 2009; Guerci & Pedrini, 2014; Järlström et al., 2018), the dimensions and practices cited reflect the construct as a latent and higher-order variable. Thus, the following research hypothesis is formulated:

> H1: SHRM practices are reflective, a latent construct of second-order, and capture the following three factors, namely (a) attraction and retention of professionals, (b) maintenance of healthy and motivated professionals, and (c) developing the skills of professionals.

SHRM Practices and Organizational Commitment (OC)

Organizational commitment (OC) represents an important construct in management research. It relates to the degree to which employees are dedicated and commit their efforts to benefit teams and the company (Yamaguchi, 2013). The OC also embodies the individual's psychological state, which characterizes their relationships with the organization and has implications for whether they remain in the company (Meyer & Allen, 1991). The OC represents an attitude that describes the link between the individual and the organization and a set of behaviors through which the professionals manifest this relationship (Mathieu & Zajac, 1990).

The OC has a multidimensional approach (Meyer, Allen, & Smith, 1993; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Mory, Wirtz, & Göttel, 2016), based on three components (Meyer & Allen, 1991): (i) continuance (CC) - the awareness of the costs associated with leaving the organization. In this case, professionals remain with their company because they need to do so and not because of their desire to belong to the corporation; (ii) affective (AC) - the employee's emotional involvement and identification with the corporation. The professionals remain with the organization because they want to belong to the company; (iii) normative (NC) - a feeling of obligation to remain with the organization. In this dimension, employees

are likely to behave concerning obligations and duties of loyalty and, therefore, display positive behaviors.

The CC develops when the employee has no alternative employment in other organizations or realizes that, when leaving the company, they will lose the investments made in it (Meyer & Allen, 1991; Rego & Cunha, 2008). One of the main antecedents of the CC is the availability of jobs in the market (Meyer & Allen, 1991). This external factor goes beyond the field of influence of the company. Considering the main objective, the focus of this study was to analyze the impacts of SHRM practices on AC and NC.

Previous studies indicate that HRM practices precede OC (Aladwan, Bhanugopan, & D'Netto, 2015; Wright & Kehoe, 2008). The study by Scheible and Bastos (2013) suggests that HRM practices contribute to strengthening employee ties with the company, showing that the perception of employees about training and development practices, work stability, and compensation and benefits is positively related to AC.

In convergence, Shen and Zhu (2011) indicate that an HRM system aimed at social responsibility and organizational sustainability is positively related to the commitment of professionals. Therefore, the practices developed in the corporation should be based on their compliance with labor laws and standards established by the International Labor Organization, focusing on equal opportunities, health, and safety at work, the control of working hours, and fair remuneration.

In this context, HRM practices must highlight the needs of workers and their families, going beyond compliance with legal issues. This perspective encompasses practices such as training and development opportunities, career management, democracy in the workplace, and actions for the participation and involvement of the employees. HRM practices should also draw attention to social responsibility initiatives, considering the interests of the stakeholders and achieving short-term effectiveness and long-term sustainability (Shen & Zhu, 2011).

The SHRM practices are related to commitment, considering that the individuals' commitment is influenced by the organizational values, the fair and adequate treatment of the employees, and the appreciation of the professionals (Rego & Cunha, 2008). At the same time, companies that implement SHRM practices promote diversity, positive relationships at work, workers' well-being, favorable working conditions, and development and career opportunities (Boudreau & Ramstad, 2005; Ehnert, 2009; Järlström et al., 2018). Therefore, it can be inferred that the development of the aforementioned human resources actions will allow employees to feel supported, valued, and respected by the company's management. This context will consequently lead to commitment.

In this sense, it is noteworthy that the AC tends to be more representative when employees realize that the company has a humanized and socially responsible orientation. At the same time, the NC, which establishes employee loyalty bonds with the corporation, is strengthened by HRM policies and practices that value workers as individuals and not just as resources (Rego & Cunha, 2008).

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Considering the context presented and previous studies that suggest that SHRM practices impact AC and NC (Ehnert, 2009; Cohen et al., 2012; Mory et al., 2016; Shen & Zhu, 2011), the following research hypotheses are proposed:

H2: SHRM practices have a significant and positive impact on AC.

H3: SHRM practices have a significant and positive impact on NC.

The relationship between AC and NC is addressed below. Based on information found in the literature, González and Guillen (2008) highlight the explanatory factors of these types of commitment: (i) AC is related to the emotional bond of the employees to their identification and their involvement with the company. Therefore, it represents the desire to achieve something, such as remaining with the organization or striving to meet corporate goals; (ii) NC refers to the feeling of obligation to remain with the company; individuals feel that they must accomplish something under a moral commitment.

In this context, workers who wish to remain in an organization because of positive experiences (AC) may also feel some sense of obligation toward the company (NC) (Meyer & Smith, 2000). In other words, positive experiences linked to the company, which generate AC, can also cause a feeling of reciprocity with the organization, triggering NC (Bergman, 2006).

AC is associated with attitudes toward the organization, which influence the behavior and duty to remain in the company (NC) (Meyer & Parfyonova, 2010). According to the context described and considering previous studies that indicate the relationship between AC and NC (Bergman, 2006; Meyer & Smith, 2000; Mory et al., 2016), the following research hypothesis is proposed:

H4: AC has a significant and positive impact on NC and establishes a mediation relationship between SHRM practices and NC.

METHOD

This research was developed with a sample of employees from listed companies included in the BM&FBOVESPA Corporate Sustainability Index (ISE). The index was designed to show the market performance of companies that apply sustainability principles, encouraging good practices in the Brazilian business environment, and working as a benchmark for sustainable development investment (Monzoni, 2016). Companies were contacted by telephone. Employees that took part in the study work for six companies: three banking institutions, two manufacturing companies, and one insurance company. The first emails to present the research and the data collection procedures were sent between September 26, 2017, and December 6, 2017.

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A total of 290 answered questionnaires were considered valid. The majority of respondents (58.3%) were female. When analyzing the age group, there was a predominance of individuals ranging from 31 to 40 years of age (44.5%). Concerning education, there was a higher number of professionals with a university degree (37.2%) or a postgraduate degree (45.9%). There was a balance in the proportion of respondents who indicated to work in operational positions (47.6%), including analysts, assistants, or subordinates, and in managerial positions (52.4%). 43.4% of respondents had been working at the company for over ten years.

The structure of the research instrument involved three sections. The first consisted of 22 items related to the SHRM practice scale, based on Ehnert's (2009) work. In this preliminary study, the researchers developed descriptive-exploratory research in fifty European multinational companies linked to the World Business Council for Sustainable Development (WBCSD) by analyzing the publications' content on the corporations' websites (such as sustainability reports and best practices). The main result of this previous research was the proposal of a list of human resource management practices related to sustainability (Ehnert, 2009; Guerci & Pedrini, 2014). The items were adapted, with the support of a panel of experts, with academic and managerial experience.

In general, experts only suggested adjustments in terms of the wording of the items. The most significant change occurred concerning the item that dealt with the company's concern with maintaining a reputation as a socially responsible organization and a trusted employer. In this case, two experts recommended separating into two issues, considering that being socially responsible and a trustworthy employer dealt with different approaches. Based on this advice, the item was restructured. The scale used to measure SHRM practices is presented in Table 1.

The second section presented six items related to AC and NC. The items were adapted from the studies of Rego and Cunha (2008) and Allen and Meyer (1990). As examples of items on this scale: "I feel like 'part of the family' at my organization" (AC) and "Even if it were to my advantage, it would not be right to leave my organization now" (NC).

The survey instrument adopted a seven-point Likert scale (7 "strongly agree" to 1 "strongly disagree"). Considering that the questionnaire was applied to Brazilian companies, and the studies that originated its items were developed in English, a back-translation for cross-cultural research was performed (Mcgorry, 2000).

Finally, the last block of questions dealt with the respondents' demographic data (gender, age, education level, organizational tenure, and hierarchical level). Also, other characteristics were controlled (company sector, national or multinational, and public or private operations).

ANALYSIS AND RESULTS

Data analysis was performed using the SEM technique, supported by SPSS (version 22) and Amos (version 24). The assumptions related to multivariate analysis were tested. Data normality was assessed from the univariate dimension and detected using kurtosis and asymmetry measurements, with values less than |3| and |10|, respectively (Hair, Hult, Ringle, & Sarstedt, 2016; Kline, 2015).

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The assumption of linearity was also met based on the scatterplot assessment (Kline, 2015). Collinearity and multicollinearity were evaluated by the following techniques: (i) examination of the correlation matrix of the variables, using Pearson's correlation coefficient, with values below 0.90; (ii) tolerance value with values greater than 0.10; and (iii) variance inflation factor with values below 10 (Hair et al., 2016; Kline, 2015). Finally, homoscedasticity was confirmed with the Levine test ($p > 0.05$) (Hair et al., 2016).

The covariance matrix was used as standard data input (Byrne, 2016; Kline, 2015). The estimation of maximum likelihood was applied, considering that the assumptions of multivariate normality were attained (Kline, 2015).

Following the analysis of the results, the exploratory factor analysis (EFA), the measurement model of the SHRM practices construct, and the construct validation procedures are presented. Finally, the structural model and the outcome of the hypothesis test are described.

A multi-group analysis was developed according to recommendations in the literature, considering that the individuals participating in the study have diverse profiles and belong to different companies (Bagozzi & Yi, 2012; Williams, Vandenberg, & Edwards, 2009). The multi-group analysis was based on the general structural model (Byrne, 2016), evaluating the significant differences between the relationships proposed for the constructs.

The relationships between the constructs did not change significantly when the following control groups were evaluated: gender, age, company time, hierarchical level, level of education, and whether in a public or private company.

EFA of the SHRM Practices Construct

The variables related to the SHRM practices construct were listed based on Ehnert's (2009) exploratory study. These variables were adapted, considering that the original study was written in English and the research instrument was translated into Brazilian Portuguese by a team of three language and theoretical specialists. An exploratory factorial analysis was chosen, aiming to evaluate the structure of the set of variables and reduce the data (Hair et al., 2016). The data were submitted to a factorial analysis - principal component analysis (PCA), with orthogonal varimax rotation.

Initially, the EFA produced four factors that explained 60.49% of the variance. The value of 0.916 was also identified for the KMO sample adequacy index , indicating the factoriality of the data. Bartlett's test of sphericity showed a significance of 0.000, which indicates a correlation of the variables within the researched cases (Hair et al., 2016).

However, in the first solution, there were variables with commonality values lower than 0.50 or loads divided between the identified factors. A process of evaluation of commonalities and factor loads was started, and eight variables were eliminated. The adjustments resulted in a solution consisting of three factors (Table 1), with 66.58% of explained variance. This result showed that the grouping of variables into three factors converged with the dimensions indicated in the exploratory study by Ehnert (2009).

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Table 1. EFA of the SHRM practices construct

Factors	Variables	Commonalities	Factor loads
Attraction and retention of professional Mean: 5.68 SD: 1.094	1.1- The company offers an attractive and challenging work environment.	0.674	0.744
	1.2- The company offers career opportunities.	0.653	0.708
	1.3- The company promotes cultural and gender diversity in relation to its employees.	0.510	0.665
	1.4- The company has compensation and benefits practices that favor the attraction and retention of professionals.	0.556	0.658
Maintenance of healthy and motivated professional Mean: 5.22 SD: 1.217	2.1- The company develops actions that favor the reduction and prevention of stress.	0.741	0.830
	2.2- The company favors the adoption of a healthy lifestyle by its employees.	0.711	0.807
	2.3- The company is concerned about the well-being of its employees.	0.721	0.799
	2.4- The company favors the balance between the personal and professional life of its employees.	0.698	0.703
	2.5- The company provides ergonomic conditions in the workplace.	0.520	0.697
	2.6- The company is concerned about its employees' satisfaction and motivation.	0.699	0.693
Developing the skills of professionals Mean: 5.64 SD: 1.183	3.1- The company offers professional training to employees, with a long-term vision.	0.808	0.837
	3.2- The company invests in the training and development of different groups of employees.	0.740	0.804
	3.3- The company invests in the employees' education.	0.637	0.705
	3.4- The company invests in the training of employees and in the development of their knowledge.	0.654	0.671

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In addition to the EFA, a descriptive analysis of the dimensions related to SHRM practices and organizational commitment (OC) was developed. For the SHRM practices construct (Table 1) the dimension 'attraction and retention of professionals' presented the highest mean (5.68), followed by the mean for the dimension of developing the skills of professionals (5.64), and the mean for maintenance of healthy and motivated professionals (5.22). Results show that respondents presented high levels of affective commitment (AC) (Mean: 5.99; SD: 1.033) and normative commitment (NC) (Mean: 4.65; SD: 1.719). These findings are in line with the literature, which indicates that SHRM practices promote OC (Cohen et al., 2012; Ehnert, 2009; Mory et al., 2016; Shen & Zhu, 2011).

Measurement Model of the SHRM Practices Construct

In many situations, multidimensional models show lower adjustment than one-dimensional models (Williams et al., 2009). Therefore, in agreement with hypothesis H1, which states that the SHRM practices represent a latent, reflexive construct of a higher order, the evaluation of the solutions with one or three factors was developed by comparing nested models. The chi-square difference statistic ($\Delta\chi^2$) was determined, with the subtraction of the χ^2 values between the reference model and the alternative nested model (Byrne, 2016; Kline, 2015). The results (Table 2) show that the three-factor solution is better suited due to the lower value of χ^2 and χ^2/gl <5 (Bagozzi & Yi, 2012).

Table 2. χ^2 difference test

	χ^2	GI	χ^2/gl	p
Three-factor solution	253.338	74	3.423	0.000
One-factor solution	630.894	77	8.193	0.000
Nested model comparison	377.556	3	-	0.000

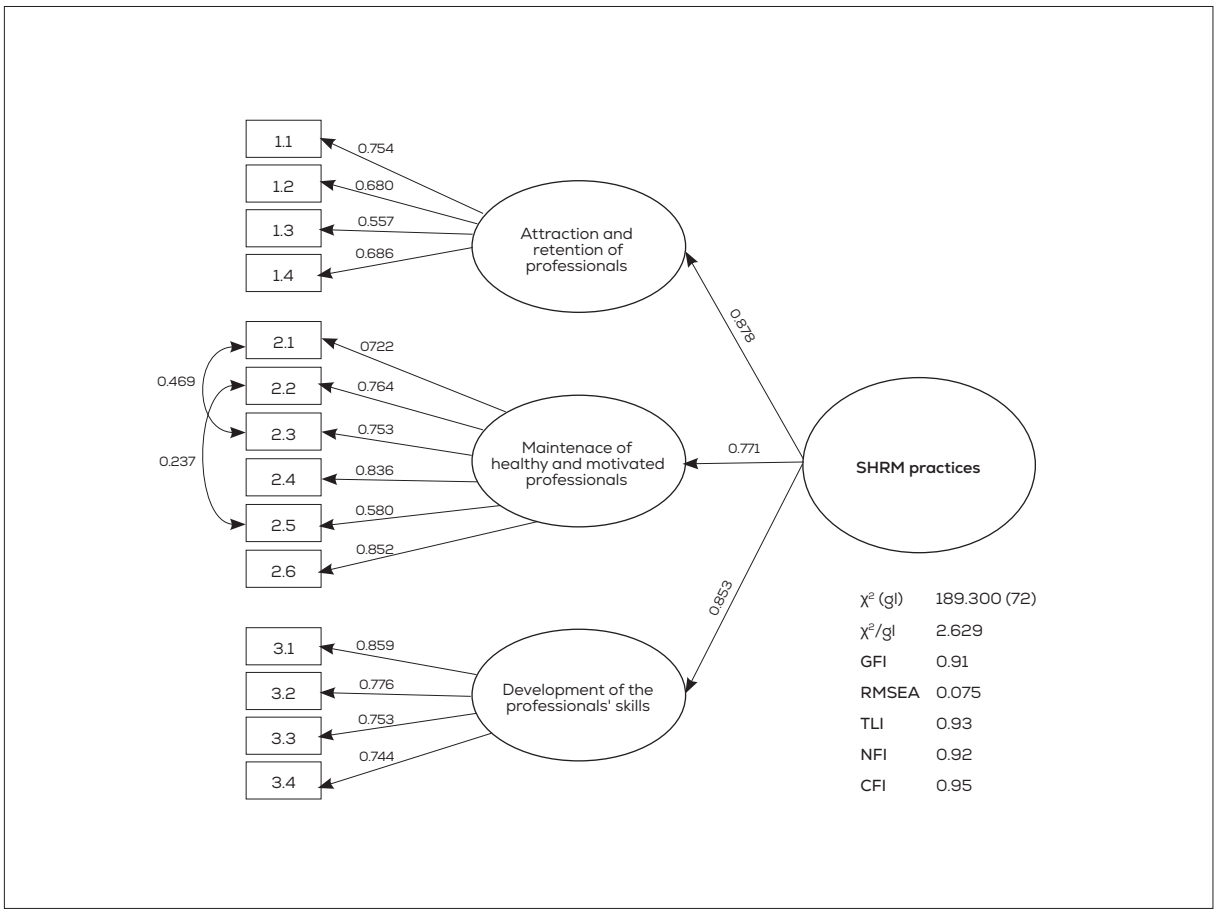
The confirmatory factor analysis (CFA) for the construct and the adjustment indices of the measurement model were analyzed (Figure 1). After establishing two relations between the variables, based on the modification indexes (Kline, 2015), the SHRM practices model presented an adjustment according to the parameters found in the literature (Byrne, 2016; Kline, 2015). Covariance was included among the indicators 2.1 "The company develops actions that favor the reduction and prevention of stress" and 2.3 "The company is concerned about the well-being of its employees." These variables have an important relation since they are linked to the development of actions that influence professionals' health and well-being .

A covariance was established between items 2.2, "The company favors the adoption of a healthy lifestyle by its employees" and 2.5, "The company provides ergonomic conditions in

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the workplace." Ergonomics in the workplace is associated with implementing programs that promote the health and safety of professionals by improving equipment, workstations, policies, and procedures. In this sense, the relationship between ergonomic conditions and the likelihood of developing a healthy lifestyle is justified.

Figure 1. Second-order CFA



Construct Validation

The data from Table 3 show the internal consistency of the constructs, with Cronbach's α levels >0.70 (Bagozzi & Yi, 2012; Hair et al., 2016). The composite reliability presented appropriate values (>0.70) (Hair et al., 2016). The average variance extracted AVE (>0.50) was also analyzed, which suggests adequate convergence (Hair et al., 2016). These results were obtained by carrying out a CFA and indicate that the constructs have convergent validity (Byrne, 2016).

The discriminant validity was examined by comparing the AVE for each construct to the square of the correlation estimate between such dimensions. Therefore, the AVE (numbers highlighted in bold) shows higher values than the square correlation estimate (Hair et al., 2016).

Table 3. Discriminant and convergent validity

	1	2	3	4	5
1. Attraction and retention of professionals	0.578				
2. Maintenance of healthy and motivated professionals	0.412	0.723			
3. Developin the skills of professionals	0.561	0.412	0.740		
4. Affective commitment	0.376	0.327	0.139	0.819	
5. Normative commitment	0.217	0.149	0.084	0.298	0.770
Average variance extracted	0.578	0.723	0.740	0.819	0.770
Composite reliability	0.844	0.939	0.919	0.931	0.909
Cronbach's α	0.752	0.897	0.853	0.874	0.843

The data have no measurement bias. The latent common factor test was developed through CFA, linking all the items observed in the model. The new variable relationship scheme led to the following adjustment measures: χ^2(gl)= 329.482 (159), χ^2/gl= 2.072, GFI= 0.89, RMSEA= 0.06, TLI= 0.94, NFI= 0.91 e CFI= 0.95. All relationships between observable items and latent variables remained significant, even with the introduction of the common factor. Moreover, no relationship with this factor showed significance.

Concerning Harman's single-factor test, the common variance identified was 40.8%, which means that no dominant factor appeared and no problems were related to the measurement bias (Podsakoff & Organ, 1986). In convergence, the latent common factor test was performed, which identified that all relationships between the observable items and the latent variables remained significant, even with the introduction of the common factor. Moreover, no relationship with this factor has shown significance (Hair, Black, Babin, & Anderson, 2014; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Final Structural Model and Hypothesis Testing

The final structural model was designed, considering the relation between the constructs. This model presented adjustment indexes compatible with recommendations in the literature (Figure 2).

The hypotheses related to SHRM practices (higher-order construct) and their respective dimensions were significant. The most important effect was identified in the dimension "maintaining healthy and motivated professionals" (γ: 0.875), followed by the dimensions associated with attracting and retaining professionals (γ: 0.843) and developing the skills of professionals (γ: 0.744). The results indicate that the SHRM practices scale has convergent and

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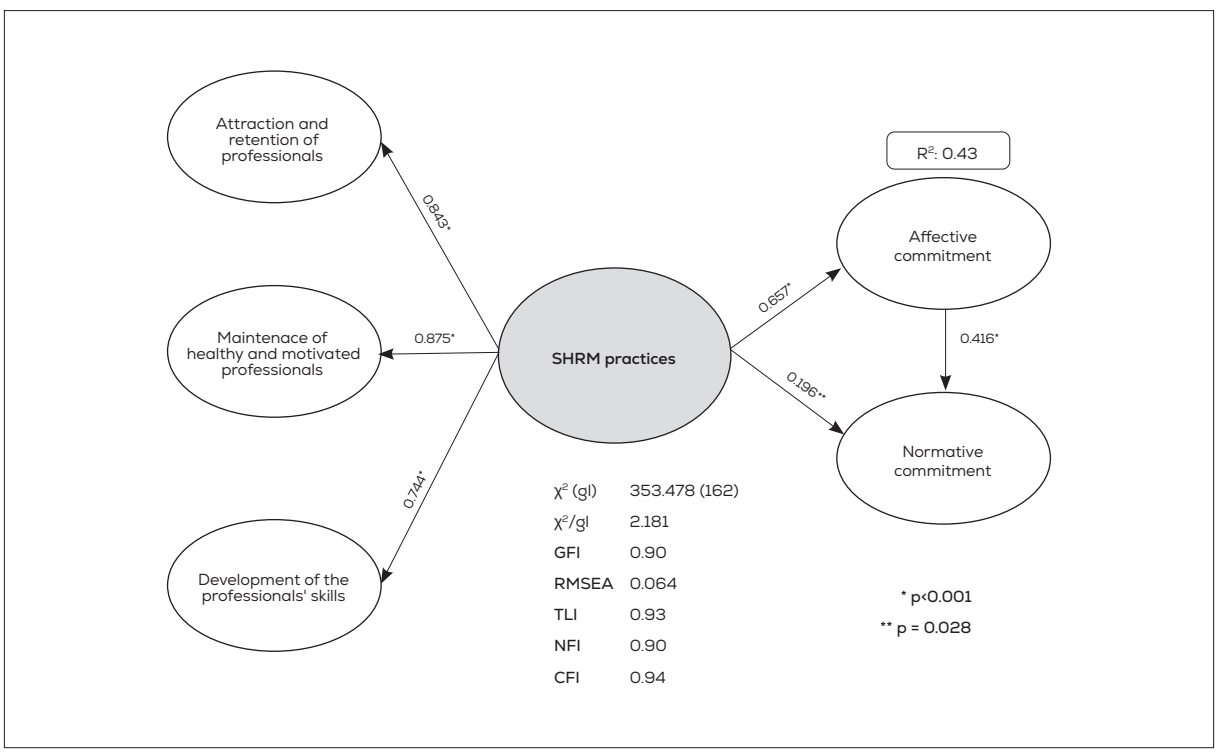
discriminant validity among its factors, demonstrating its suitability as a second-order construct. In this sense, the hypotheses H1(a), H1(b), and H1(c) can be empirically confirmed in this study.

The hypotheses that stated the positive and significant impact of SHRM practices on AC (H2-β: 0.657, p <0.001) and NC (H3-β: 0.196, p= 0.028) were also confirmed. In this case, 43% of the variance associated with AC was explained by SHRM practices (R^2: 0.43), in agreement with the view that these practices make professionals feel supported, valued, and respected in the organizational scope and, consequently, committed.

Although the relationship between SHRM practices and NC is positive and significant, the impact of the practices on this type of commitment is not substantial (β: 0.196; p= 0.028). Therefore, the proposition that AC has a significant and positive impact on NC and establishes a mediation relationship between SHRM practices and NC (H4) seems to be adequate.

The propositions highlighted by Baron and Kenny (1986) were considered. Initially, an analysis was carried out regarding a significant correlation between the involved constructs and the AC that significantly and positively impacts the NC (β: 0.416; p <0.001). The relationship between SHRM practices and NC, without the inclusion of an additional predictor (AC), was identified as significant (β: 0.520, p <0.001). However, by including AC as an additional predictor, the magnitude of the relationship between SHRM practices and NC is reduced (β: 0.196; p= 0.028), which means a partial mediation. A mediation relationship would not be sustained if an additional predictor did not modify the magnitude and significance of the relationship between the constructs (Hair et al., 2014).

Figure 2. Structural model



DISCUSSION, CONCLUSIONS, AND LIMITATIONS

Although SHRM has been addressed in previous studies published approximately 20 years ago (Gollan; 2000; Zaugg, Blum, & Thom, 2001), the multiplicity of conceptual approaches and the difficulty of establishing which HRM practices are considered sustainable are still evident (Ehnert et al., 2016; Järlström et al., 2018; Prins et al., 2020; Tooranloo et al., 2017).

Therefore, the first theoretical implication is the empirical evaluation of the dimensions and variables that represent the construct. In a recent study, Prins et al. (2020) presented the development of a scale that measures these practices, focusing on three factors called decent working conditions, democracy in the workplace, and environment for a sustainable career. However, the authors did not indicate the origin of the items and, although they identified three dimensions, they conducted the study based on a single factor.

Nevertheless, this study considered the multidimensional nature of SHRM (Ehnert, 2009; Guerci & Pedrini, 2014; Järlström et al., 2018) and empirically evaluated a broader scale, which incorporates the main functions of human resource management: attraction, retention, and development. In this case, the attraction and retention of professionals, the maintenance of motivated and healthy professionals, and developing the skills of professionals represent the latent dimensions that reflect the SHRM practices construct. These factors presented reliability, convergent, and discriminant validity within the indicated parameters in the literature and the statistical tests showed that adopting a second-order construct is the most adequate.

By highlighting the importance of commitment in the corporate context, the second contribution of the study is established based on the positive and significant relationship between SHRM practices and AC and NC. These practices impact the emotional involvement of employees, their identification, the desire to remain in the corporation (AC), and the feeling of obligation and loyalty to the company (NC).

Additionally, AC was identified as having a positive impact on NC and playing a role of partial mediation in the situations that SHRM practices promote the NC of the worker to the corporation. Thus, the confirmation of this mediation relationship is presented as the third theoretical implication of the research and further emphasizes the importance of knowing the factors that precede AC (Meyer et al., 2002; Mory et al., 2016).

The predominant academic focus of HRM is based mainly on the needs of hiring, motivating, and developing people concerning talents and skills linked to corporate aspirations, especially from an economic perspective. However, this view is relatively unilateral and does not address the needs of individuals and society, focusing mainly on employers' goals and performance-related analysis of variables (Prins et al., 2020).

The relevance of this study is based on recommendations in the literature, which highlight corporate sustainability, SHRM practices, and their impacts at the individual and corporate level, as emerging and significant research themes for the current social context and the field of study of applied social sciences.

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This study not only focuses on the wishes of entrepreneurs and shareholders but also emphasizes the employee as a key stakeholder for organizations, considering that, in many situations, the emphasis on the individual is neglected in the human resource management research agenda (Järlström et al., 2018). Therefore, management practices should include the needs and expectations of individuals and contribute to the well-being of professionals and society (Barrena-Martínez, López-Fernández, & Romero-Fernández, 2019; Bondarouk & Brewster, 2016).

The results of this research prove how SHRM practices focus on valuing diversity, discounts, and economic benefits, offering career opportunities and training, and developing actions that favor the physical and psychological well-being of individuals. This study supports a human resource management research agenda that emphasizes outcomes for staff and organizations. In this case, the employee's emotional involvement and the existence of identification with the corporation stand out (Allen & Meyer, 1990; Meyer & Smith, 2000). Therefore, it is inferred that, empirically, the interviewees are dealing with the commitment to the organization, considering that pride is an indicator of affective commitment (Rego & Cunha, 2008).

The results show that regarding the dimensions of the SHRM practices construct, the most significant effect was identified about the maintenance factor of motivated and healthy professionals. HR managers should prioritize actions that promote: (i) stress reduction and prevention and the adoption of a healthy lifestyle by employees; (ii) the welfare of professionals; (iii) the balance between personal and professional life; (iv) the establishment of ergonomic conditions in the workplace and; (v) concern with the satisfaction and motivation of individuals.

The existence of an attractive and challenging workplace, career opportunities, diversity management, and the existence of competitive practices of compensation and benefits (dimension of attraction and retention of professionals) should also be considered. Similarly, investments in training, development, and education (dimension of professional development) also need to be carried out, although they have a lesser impact.

In addition to the theoretical implications, this paper also has practical contributions. When considering the importance of sustainable development issues in the business scenario and the connection of HRM with sustainability, it is worth pointing out the importance for managers to know which SHRM practices are more likely to reflect the employees' perceptions.

Another important managerial implication is associated with OC. Increasingly, companies seek to improve their performance by implementing appropriate HRM policies and practices that focus on internal and external stakeholders (Shen & Zhu, 2011). In this context, SHRM practices, which positively impact commitment, play a crucial role in promoting the professional's desire to remain in the organization, adhere to and become involved with the company's objectives, and act with reciprocity and responsibility.

Some limitations of this study may be addressed in future research. This was a cross-sectional research, not allowing analysis of changes in employee perceptions regarding SHRM practices and OC over time. In the future, longitudinal research may be developed for this purpose. In addition, considering that the study used SEM to develop a model, future studies

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may cross-validate with an independent sample (Hair et al., 2016). The exploratory factor analysis and confirmatory factor analysis could be conducted with independent samples.

This study contributed to identifying dimensions and variables related to SHRM practices. However, new research could evaluate the variables used in this study in different contexts, considering that evaluations in SHRM studies are undergoing a continuous change process (Prins et al., 2020). Research on companies that are not included in sustainable rankings can be performed to compare results.

Whereas previous studies point out that SHRM practices can be analyzed from employees' perspectives (Nishii, Lepak, & Schneider, 2008), future studies that evaluate these practices from the perspective of entrepreneurs and managers are recommended (Järlström et al., 2018). This research opportunity may also focus on possible discrepancies between discourse and the effective implementation of SHRM practices.

Finally, future studies can analyze the impacts of SHRM practices on other constructs, such as work-related health and social harm, job satisfaction, turnover intention, and well-being at work. More specifically, relations with continuance commitment can also be evaluated, considering the economic situation and the availability of jobs in the market as moderating variables.

In sum, the study provides several contributions to the literature on HRM. Firstly, the research provides an empirical and comprehensive evaluation of the variables related to SHRM practices, considering the multidimensional characteristic of this construct. Secondly, this is the first study that empirically evaluates the impacts of SHRM practices on OC. Finally, this study supports the research agenda of the HRM field regarding the results for individuals and organizations.

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AUTHOR'S CONTRIBUTION

Denise Genari and Janaina Macke worked on the conceptualization and theoretical-methodological approach. The theoretical review was conducted by Denise Genari. Data collection was coordinated by Denise Genari. Data analysis included Denise Genari and Janaina Macke. Denise Genari and Janaina Macke worked together in the writing and final revision of the manuscript.

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DO RESPONSIBLE PRACTICES ENHANCE EMPLOYEE ORGANIZATIONAL COMMITMENT? A STUDY OF BRAZILIAN TEXTILE COMPANIES

Práticas responsáveis reforçam o comprometimento organizacional dos empregados? Um estudo das empresas têxteis brasileiras

¿Las prácticas responsables mejoran el compromiso organizacional de los empleados? Un estudio de las empresas textiles brasileñas

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ABSTRACT

This paper assesses the effects of employee perception of corporative social responsibility (CSR) practices on organizational commitment (OC) in textile companies located in the Brazilian state of Ceará – a relevant region for the textile industry in Latin America. The research used a survey to collect data from 539 employees working in three companies, adopting a quantitative approach based on structural equation modeling. The results show that CSR practices geared toward employees, clients, suppliers, and government positively impacted affective/normative commitment, whereas CSR practices geared toward society and the environment impacted commitment negatively. Also, CSR practices focused on employees affected their continuance commitment, while CSR practices focused on other stakeholders did not present the same impact. Finally, the findings show that large textile companies tend to adopt more CSR practices, which significantly influences employee commitment.

Keywords: corporate social responsibility, organizational commitment, affective commitment, continuance commitment.

RESUMO

Este artigo oferece uma avaliação dos efeitos da percepção dos empregados a respeito das práticas de Responsabilidade Social Corporativa (RSC) sobre o Comprometimento Organizacional (CO) nas empresas têxteis de uma região relevante para a produção têxtil na América Latina (Estado do Ceará, Brasil). Trata-se de uma pesquisa quantitativa, que utiliza métodos de análise fatorial exploratória e confirmatória e modelos de equações estruturais para identificar os efeitos das práticas de RSC sobre o CO, realizada com 539 empregados de três empresas diferentes. Os resultados mostram que as práticas de RSC orientadas para os empregados, clientes, fornecedores e governo têm um impacto positivo no comprometimento afetivo/normativo, enquanto as práticas de RSC para a sociedade e o meio ambiente têm um impacto negativo. As práticas de RSC voltadas aos empregados também afetam seu comprometimento instrumental, mas práticas de RSC com outros focos não tiveram a mesma influência. Os resultados mostram ainda que as grandes empresas têxteis tendem a adotar mais práticas de RSC, influenciando mais significativamente o comprometimento de seus empregados.

Palavras-chave: *responsabilidade social corporativa, comprometimento organizacional, comprometimento afetivo, comprometimento instrumental.*

RESUMEN

Este trabajo proporciona una evaluación de los efectos de la percepción de los empleados de las prácticas de responsabilidad social corporativa (RSC) sobre el compromiso organizacional (CO) en empresas textiles de una región relevante para la producción textil en América Latina (Estado de Ceará, Brasil). Se trata de una investigación cuantitativa, que emplea métodos de análisis factorial exploratorio y confirmatorio y modelos de ecuaciones estructurales para identificar los efectos de las prácticas de RSC sobre el CO, realizada con 539 empleados de tres empresas diferentes. Los resultados revelan que las prácticas de RSC orientadas a empleados, clientes, proveedores y gobierno afectan positivamente al compromiso afectivo/normativo, mientras que las prácticas de RSC hacia la sociedad y el medio ambiente lo afectan negativamente. Las prácticas de RSC dirigidas a los empleados también afectan el compromiso de continuidad de estos, pero otros tipos de prácticas de RSC no lo influencian. Los resultados aún revelan que las grandes empresas textiles tienden a adoptar más prácticas de RSC, influyendo más en el compromiso de sus empleados.

Palabras clave: *responsabilidad social corporativa, compromiso organizacional, compromiso afectivo, compromiso de continuidad.*

INTRODUCTION

The company's investment in CSR practices may be a way to increase employee commitment. According to Meyer and Allen (1991), organizational commitment (OC) is a desire that leads employees to act toward a goal. The authors conceptualize commitment based on a three-component framework: affective, normative, and continuance commitment (Meyer & Allen, 1991). CSR refers to corporate behavior beyond the company's economic interest to positively affect stakeholders. CSR reflects the company's responsibility toward primary social stakeholders, secondary social stakeholders, primary non-social stakeholders, and secondary non-social stakeholders (Turker, 2009). The relationship between CSR and OC can bring favorable outcomes to organizations and society.

Studies have investigated the relationship between CSR and OC in terms of correlation, such as (Asrar-ul-Haq, Kuchink, & Iqbal, 2017; Khaskheli et al., 2020). Others have pointed out the mediating role of commitment between CSR practices and job performance (Bizri, Wahbi, & Jardali, 2021), turnover intention (Nejati, Brown, Shafaei, & Seet, 2021), and organizational citizenship (Khaskheli et al., 2020). Finally, some have investigated the impact of CSR on OC (Farid et al., 2019; Gupta, 2017; Kim, Milliman, & Lucas, 2021; Lu et al., 2020; Rodrigo, Aqueveque, & Duran, 2019).

These studies analyzed the constructs of CSR and OC, adopting a broader perspective. However, other authors have investigated the relationships between the dimensions of each construct, such as Cruz, Cabral, Pessoa, and Santos (2012), George, Aboobaker, and Edward (2020), McNamara, Carapinha, Pitt-Catsouphes, Valcour, and Lobel (2017), Thang and Fassin (2017). Most studies on the impact of CSR on employee engagement look at the North American and European environment, and the Brazilian literature on this relationship is still scarce.

The research question addressed in this article explores the extent to which corporate social responsibility practices affect employee organizational commitment in textile firms. The study aims to identify the relationships among dimensions of CSR and OC, expanding the knowledge on the impacts of the first on the latter. Also, the research seeks to analyze employee perception about these relationships considering the context of a developing country, i.e., regions that historically do not pay much attention to CSR practices.

The second section below presents the main issues related to OC and CSR. The methodology applied in this quantitative research is introduced in the third section, explaining how the structural equation modeling (SEM) was used to analyze the data collected from 539 employees working in companies of the textile industry in the Brazilian state of Ceará. The fourth and fifth sections present the study's results and discussion, demonstrating the importance of adopting social responsibility practices to reinforce the employees' normative and affective commitment, followed by the conclusion.

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CORPORATE SOCIAL RESPONSIBILITY AND ORGANIZATIONAL COMMITMENT

According to Meyer and Allen (1991), organizational commitment (OC) may be considered a desire that leads employees to act toward a specific goal. OC can be characterized by "three related factors: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (Mowday, Steers, & Porter, 1979, p. 226).

Meyer and Allen (1991) proposed a multidimensional approach for OC composed of three dimensions: affective (emotional desire to work in the company), normative (perceived cost of changing jobs), and continuance (moral obligation to remain in the company). The three components are distinct, and they develop based on different work experiences and processes. Each component is connected to several work-related behaviors and reactions and is also strongly linked to the employee's intention to remain in the company and retention-related behavior (Allen, 2016).

Although performance is important, companies should consider their stakeholders' needs and act responsibly. Turker (2009) argues that corporate social responsibility (CSR) goes beyond the company's economic interests and refers to corporate behavior to affect their stakeholders positively. The author refers to CSR as a responsibility of the company toward primary social stakeholders, secondary social stakeholders, primary non-social stakeholders, and secondary non-social stakeholders.

Primary social stakeholders are those that directly impact the organization's relationships and involve human entities. Secondary social stakeholders have less direct impacts (e.g., civil society, business at large, and other interest groups). According to Turker (2009), this group can sometimes be highly influential. Non-social stakeholders are those that do not involve human relationships. This group comprises the natural environment, non-human species, and future generations.

Organizations must have socially responsible human resource management (HRM) to engage employees in responsible practices. Also, there is evidence that socially responsible HRM affects OC (Iqbal & Deng, 2020; Shen & Zhu, 2011). Specifically, Shen and Zhu (2011) and Iqbal and Deng (2020) showed a positive relationship between employee-oriented HRM and affective commitment. Shen and Zhu (2011) also found a significant positive relationship between employee-oriented HRM and normative commitment but did not observe the same with continuance commitment.

Both HR practices and CSR practices can impact employee commitment. Studies show that CSR activities significantly influence employee loyalty, leading to more commitment to the company (Stojanovic, Milosevic, Arsic, Urosevic, & Mihaljovic, 2020). These activities positively impact organizational commitment and employee engagement (Lu et al., 2020). In addition, Bizri et al. (2021) observed a significant influence of CSR best practices on job performance, observing the mediation effects of affective commitment and work engagement

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(Bizri et al., 2021). There is a strong and positive relationship between the employees' perception of CSR and affective commitment, partially mediated by employees' psychological capital (Papacharalampous & Papadimitriou, 2021).

The employees' perceptions of CSR influence their affective commitment through procedural justice and organization-based self-esteem (Kim et al., 2021). CSR initiatives positively and significantly impact OC and engagement (Lu et al., 2020). According to Gupta (2017), CSR is understood as an antecedent of OC. The employees' perceptions of CSR positively predict work commitment and organizational citizenship behavior (Farid et al., 2019).

Further investigating the relationship between the two constructs, some studies considered their particular dimensions. According to George et al. (2020), there is a significant indirect effect of all dimensions of CSR on the employees' affective commitment, mediated by trust and organizational identification. Specifically, the authors observe that CSR practices focused on clients and CSR practices focused on employees had an important conditional indirect effect on this commitment. However, the conditional indirect effect of CSR focused on social and non-social stakeholders on affective commitment was not statistically significant (George et al., 2020).

When studying the differences among CSR practices considering the organization's internal and external environment, McNamara et al. (2017) showed that perceptions of CSR focused on internal audiences are positively associated with affective commitment but not with employee engagement. On the other hand, perceptions of CSR focused on the external environment were more strongly associated with affective commitment in Anglo countries but less strongly in Confucian countries and Latin American countries (McNamara et al., 2017). Another study presents that internal CSR has a positive and significant correlation with organizational commitment. More specifically, labor relations, health and safety, and training and education significantly affected OC, whereas work-life balance and social dialogue had no significant association with OC (Thang & Fassin, 2017).

Brazilian studies also showed this relationship between the dimensions of CSR and OC. The study by Penha, Rebouças, Abreu, and Parente (2016) presented three constructs for the perception of CSR related to job satisfaction: satisfaction with leadership and with the nature of work, satisfaction with salary, and satisfaction with co-workers. However, satisfaction with leadership and with the nature of work was the construct most explained by the CSR perceived. Internal social responsibility practices, such as dialogue and participation, have the highest influence on commitment, followed by decent work practices and practices of respect for the individual. The affective commitment showed the most consistent relationship between dialogue and participation (Cruz et al., 2012). Based on previous studies that identified relations between CSR and OC, the first hypothesis was formulated:

> H1: There is a relationship between the perception of CSR practices and organizational commitment.

OC is influenced by how employees perceive the importance of CSR. Sabokro, Masud, and Kayedian (2021) revealed that green human resource management (GHRM) influences

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employees' green behavior directly and indirectly via the mediating roles of CSR and green psychological climate within Iranian industries. The study by Freitas, Caldeira-Oliveira, Teixeira, Stefaneli, and Teixeira (2020) in Brazilian firms identified that GHRM practices, in fact, positively influence CSR practices.

Employees who strongly believe in social responsibility identify with corporations that emphasize that belief. This influence can vary according to the size of companies. For Dias, Rodrigues, Craig, and Neves (2019), CSR disclosure practices of SMEs and large companies do not differ significantly. However, Abreu, Cunha, and Rebouças (2013) showed that company size is a variable that influences the adoption of CSR practices.

Baumann-Pauly, Wickert, Spence, and Scherer (2013) propose that small firms have several organizational characteristics that facilitate promoting the internal implementation of CSR practices in core business functions but face challenges regarding external communication and CSR reporting. In contrast, large firms present several characteristics that facilitate external communication and CSR reporting but have difficulties implementing CSR practices internally. Preuss and Perschke (2010) explain that medium-sized firms are in a transition stage, where some CSR features reminiscent of small enterprises are still relevant but overlaid with aspects typical of large companies. It is expected that large companies will adopt more social responsibility practices than medium-sized and small ones. So, the second hypothesis was formulated:

> H2: The impact of the perception of CSR practices on organizational commitment is more significant in large companies than in medium-sized companies.

METHODS

This research was developed using structural equation modeling (SEM). The variables are the dimensions of how corporate social responsibility (CSR) is perceived and the dimensions of organizational commitment (OC). Data was collected through a survey, and the study explored the textile industry in the Brazilian state of Ceará. The sample unit consisted of 24 companies affiliated to the Union of the Spinning and Weaving Industry of the State of Ceará (Sinditêxtil - CE). A workshop was held at Sinditêxtil for the Human Resource managers of the textile companies to discuss CSR and OC and present the proposal of this research. Three companies agreed to participate in the research: 1) a large company, with 2,688 employees and 321 respondents; 2) a medium-sized company, with 350 employees and 128 respondents; and 3) a medium-sized company, with 193 employees and 90 respondents. In total, 539 employees participated.

The questionnaire was developed based on Turker (2009) for the perception of CSR practices and Meyer and Allen (1997) for OC. The instrument had three parts. The first collected general information about the respondents, the second investigated how they perceived the CSR in the companies they worked for, and the third presented questions about the individual's commitment to the organization.

The scale developed by Turker (2009) consists of seven items for the factor of responsibility toward social and non-social stakeholders (society, natural environment, future generations, and non-governmental organizations); five items for the factor of responsibility toward the employees; three for the factor of responsibility toward the client; and two for the factor of responsibility toward the government.

The OC was measured using the scale devised by Meyer and Allen (1997). On the scale, the affective commitment has six items, continuance commitment has seven, and normative commitment has six. Besides the variables regarding how CSR and OC were perceived, the control variables, gender, age, education, marital status, number of children, type of employment, time in the company, and position in the company were included.

Some changes were made to make the scale more fitting for the employees of the companies surveyed. The variable 'supplier' was included, adding two items to evaluate how the companies' practices were perceived. An item regarding health care and work safety was included to evaluate its impact on how the employees perceive CSR. An item about environmental degradation was included, as it was deemed important to assess the company's effort toward non-social stakeholders. Two items from the original scale related to future generations were removed since they were considered unfit for the management plan of textile industries in the state of Ceará. Also, two items were removed related to suppliers and six for CSR practices toward society and the environment.

Respondents worked in different areas and were chosen by convenience sampling. The variables of how CSR and OC were perceived used a 5-points Likert scale, from "strongly disagree" to "strongly agree." The questionnaires were applied in person at the companies' facilities.

The data analysis was carried out in five stages. The first consisted of the data descriptive and inferential analysis. The Student's t-test was conducted to assess whether there was a significant difference between the averages of the participating companies. The second stage consists of the exploratory factor analysis. Although this study uses previously validated and reliable scales, it was necessary to evaluate each of these scales in an exploratory manner. At this stage, the reliability analysis was performed using Cronbach's Alpha. In the third stage of data analysis, the confirmatory factor analysis was performed to validate the constructs and their factors, to test the hypothesis of adherence of the set of items to the factors. The sample was divided into two sub-samples to use part of the respondents in the exploratory analysis and part in the confirmatory analysis.

The fourth step was the construction of a structural equation model (SEM) to assess the impact of the dimensions of perception of CSR practices in the dimensions of OC. In the fifth stage, the multigroup analysis was carried out to assess significant differences between the large company, in which it is expected that there is a greater perception of CSR practices, and in the medium-sized companies, in which it is expected that employees perceive few CSR practices. The *Statistical Package for Social Sciences - SPSS®* 19 and *Analysis of Moments Structures - AMOS 20* were used for the analysis and construction of the results.

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RESULTS

Most respondents were male (77.9%), almost half were between 25 and 40 years old (42.1%), over half had completed high school (62.9%), over half were married (52.3%), and had children (51.9%). Most respondents worked at an operational level (88%). The sample was divided between those who had worked with the company for less than five years (55.5%) and those who had worked for over five years (41.9%), with a predominance of having worked at the company for over ten years (29.1%) (Table 1).

Table 1. Profile of respondents

Caracteristics	Variables	Frequency	Percentage (%)
Gender	Male	420	77.9
	Female	116	21.5
	No answer (N/A)	3	0.6
Age	Between 25 and 40 years old	227	42.1
	Less than 25 years old	170	31.5
	More than 40 years old	135	25
	N/A	7	1.3
Education	High school	339	62.9
	Elementary school	98	18.2
	Undergraduate degree	81	15
	Graduate degree	14	2.6
	N/A	7	1.3
Marital Status	Married	282	52.3
	Single	231	42.9
	Divorced	18	3.3
	Widowed	5	0.9
	N/A	3	0.6
Children	Yes	280	51.9
	No	252	46.8
	N/A	7	1.3

Continue

Table 1. Profile of respondents

Concludes

Caracteristics	Variables	Frequency	Percentage (%)
Employment contract	Long term	500	92.8
	Temporary	24	4.5
	Third party employee	7	1.3
	N/A	8	1.5
Time in the Company (years)	> 10	157	29.1
	< 1	106	19.7
	1 - 2	105	19.5
	3 - 5	88	16.3
	6 - 10	69	12.8
	N/A	14	2.6
Job Type	Operational	474	88
	Managerial	61	11.3
	N/A	4	0.7

Source: Elaborated by the authors

The participants were asked to complete the questionnaire giving their perceptions of the company's corporate social responsibility (CSR) practices. Regardless of whether the CSR practices were effective or not, the research focused on employees' perceptions. The responses show that employees perceive the CSR practices as focused on the suppliers, the government, and the clients. The companies were considered to have a good relationship with stakeholders. Health and work (safety/security) practices were also perceived to have a high average level of adoption. However, practices focused on employees received the lowest grade, which shows a higher requirement regarding those practices. Similarly, among the lowest grades were the practices focusing on non-governmental organizations.

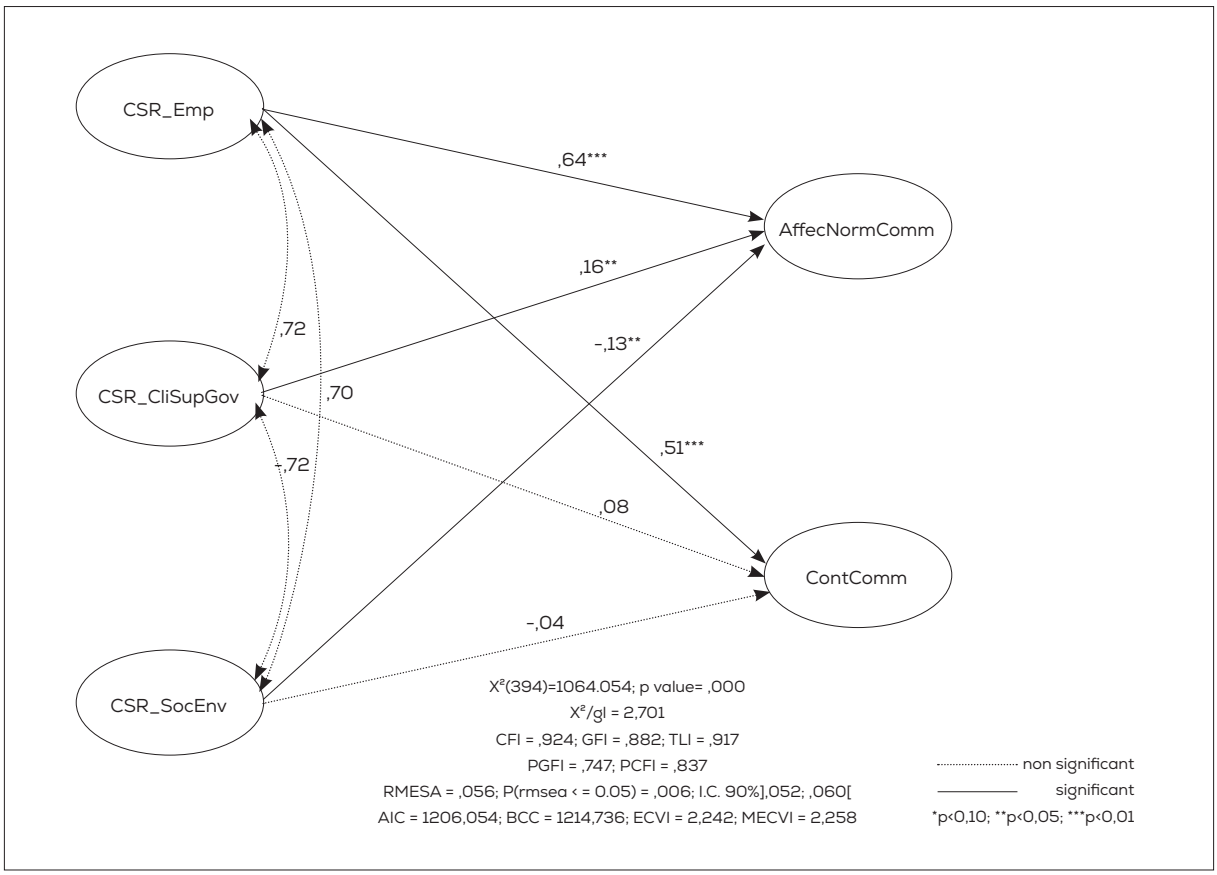
The factorial exploratory analysis suggested alterations in these measuring scales. The factors of perception of the CSR practices were grouped into three factors: perception of the CSR practices focusing on the clients, government, and suppliers; perception of the CSR practices focusing on society and the environment, perception of the CSR practices focusing on the employees. Organizational Commitment (OC) was grouped into two categories: affective/normative and continuance commitment. This grouping was confirmed by the exploratory and confirmatory factorial analysis. Concerning organizational commitment, higher values were attributed to the variables regarding normative and affective commitment (NC4, AC5, AC3, AC6, and NC6). Such variables consider the employee's relationship with the company,

involving feelings of loyalty and belonging. The lowest averages were mainly attributed to variables regarding continuance commitment (CC4, CC5, CC2, and CC7) and a variable regarding normative commitment (NC3).

Organizational commitment variables were grouped satisfactorily. The analysis was completed with 13 items, and six were eliminated (CC2, NC3, CC7, CN1_Inv, NC2, NC5) one by one, according to the criteria of low commonality and/or because they presented high factor loading. All affective commitment variables (AC1, AC2, AC3, AC4, AC5, and AC6) were grouped with two variables of normative commitment (NC4 and NC6) and one variable of continuance commitment (CC1). While four variables of continuance commitment (CC3, CC4, CC5, and CC6) were combined in another factor.

The structured model was specified and identified. The coefficients were estimated by the maximum likelihood method. The evaluation of the adjustments made to the model was done using the verification of the measurements. Through a first-order structural equation modeling (SEM), the impact of each dimension of perception of CSR practices on each dimension of OC was analyzed to investigate which practices were considered major influencers of their commitment, as shown in Figure 1.

Figure 1. Structural equation model of CSR and CO



Source: Elaborated by the authors

The critical ratio (CR) test was employed to measure the significance of each parameter, obtained by dividing the non-standardized estimate of the parameter by its standard error. The results suggest latent variables related to the perception of CSR focused on employees, government, clients, and suppliers have a positive influence on the affective/normative commitment. On the other hand, CSR practices oriented toward society and the environment tend to impact the affective/normative commitment negatively.

The perception of CSR practices related to employees significantly positively impacts continuance commitment. However, the perception of CSR practices directed to clients, government, and suppliers and the perception of CSR practices to society and the natural environment did not have a significant impact on continuance commitment. Regarding the impact on the continuance commitment, our model presented CR values less than 1.96 and non-significant p-values.

Comparative indices of adjustment demonstrate good quality of adjustment. The measurements showed satisfactory adjustments (X^2 / gl = 2.701, CFI = 0.924, PCFI = 0.837, RMSEA = 0.056), according to the reference values in Marôco (2010). The measure for analyzing the significance of each specified parameter was the CR test, obtained when dividing the unstandardized estimate of the parameter by its standard error. The standardized factor loadings (regression coefficients), the value of the critical ratio (CR), standard errors, and p-values are presented in Table 2.

Table 2. Variables, relations, constructs, factor loading, and reliability

Variable	Relation	Construct	Factor loading	Std. Error	Composite reliability	P-value
AffecNormComm	ß	CSR_Emp	0.527	0.067	7.781	***
ContComm		CSR_Emp	0.474	0.086	5.511	***
AffecNormComm	ß	CSR_CliSupGov	0.255	0.118	2.16	0,031**
ContComm		CSR_CliSupGov	-0.143	0.167	-0.860	0,390
AffecNormComm	ß	CSR_SocEnv	-0.101	0.052	-1.963	0,050**
ContComm		CSR_SocEnv	-0.032	0.072	-0.447	0,655
CSR6_1	ß	CSR_Emp	0.929	0.055	16.806	***
CSR5_1	ß	CSR_Emp	1.0000			
CSR4_1	ß	CSR_Emp	0.79	0.053	14.799	***
CSR3_1	ß	CSR_Emp	1.038	0.056	18.426	***
CSR2_1	ß	CSR_Emp	0.733	0.053	13.933	***
CSR11_1	ß	CSR_CliSupGov	1.241	0.104	11.954	***
CSR10_1	ß	CSR_CliSupGov	1.000			

Continue

Table 2. Variables, relations, constructs, factor loading, and reliability

Concludes

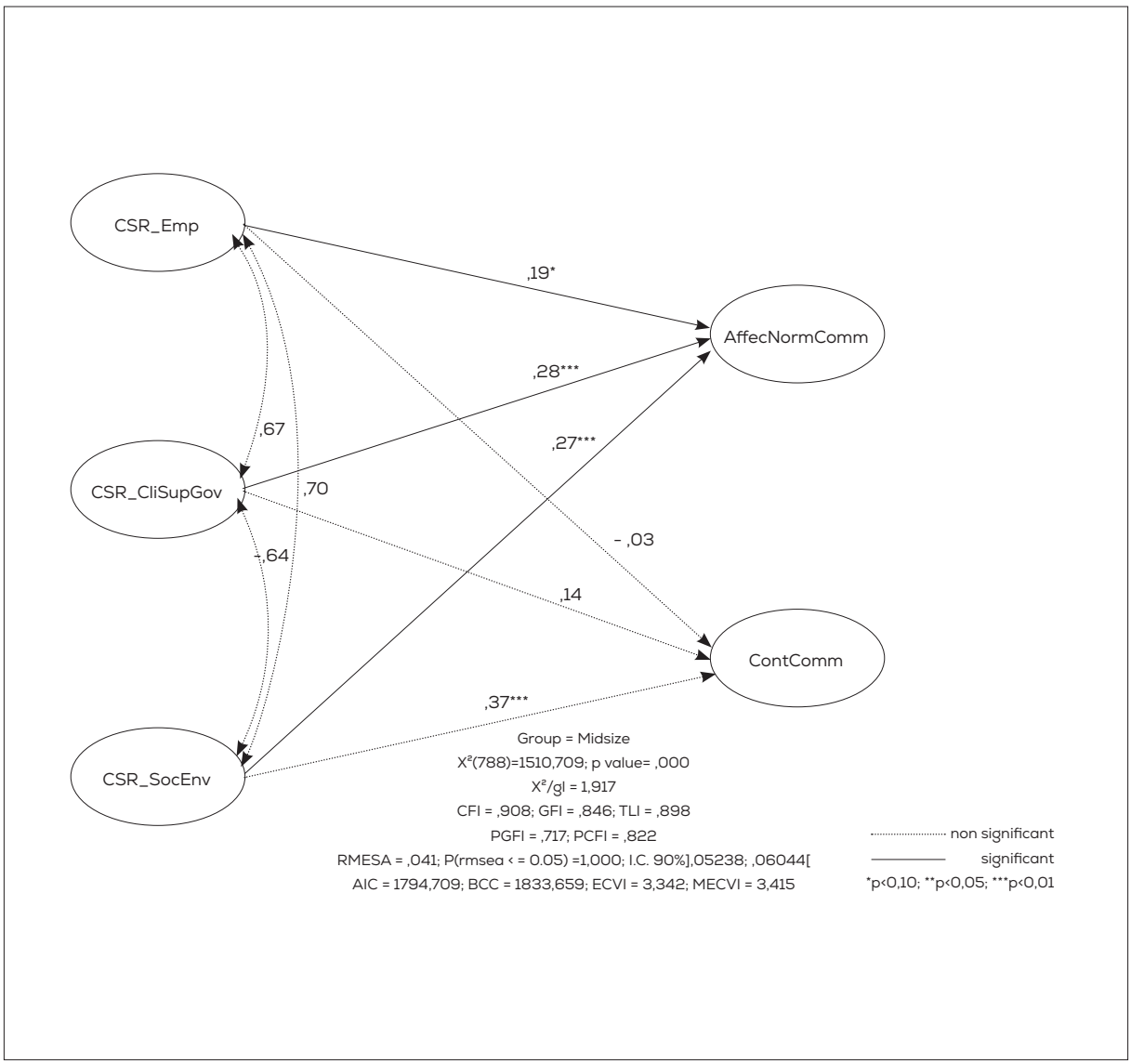
Variable	Relation	Construct	Factor loading	Std. Error	Composite reliability	P-value
CSR9_1	ß	CSR_CliSupGov	1.364	0.107	12.807	***
CSR8_1	ß	CSR_CliSupGov	1.391	1.109	12.708	***
CSR7_1	ß	CSR_CliSupGov	1.494	1.123	12.184	***
CSR12_1	ß	CSR_CliSupGov	0.956	0.069	13.810	***
CSR18_1	ß	CSR_SocEnv	0.835	0.048	17.491	***
CSR17_1	ß	CSR_SocEnv	1			
CSR16_1	ß	CSR_SocEnv	1.069	0.038	28.019	***
CSR15_1	ß	CSR_SocEnv	1.046	0.04	26.015	***
CSR14_1	ß	CSR_SocEnv	0.744	0.044	16.96	***
CSR19_1	ß	CSR_SocEnv	0.74	0.043	17.258	***
CC3_1	ß	ContComm	0.759	0.07	10.86	***
CC4_1	ß	ContComm	1.119	0.079	14.084	***
CC5_1	ß	ContComm	1.000			
CC6_1	ß	ContComm	0.973	0.075	12.947	***
CA1_1	ß	AffecNormComm	1.276	0.081	15.719	***
CA2_1	ß	AffecNormComm	1.093	0.075	14.620	***
CA3_1	ß	AffecNormComm	1.231	0.077	15.967	***
CA4_1	ß	AffecNormComm	1.245	0.077	16.223	***
CA5_1	ß	AffecNormComm	1.180	0.074	15.886	***
CA6_1	ß	AffecNormComm	1.240	0.074	16.682	***
CN4_1	ß	AffecNormComm	0.907	0.072	12.524	***
CN6_1	ß	AffecNormComm	1.000			
CC1_1	ß	AffecNormComm	1.080	0.079	13.740	***

Source: Elaborated by the authors

In order to deepen the analysis of the impact of the perception of CSR practices on OC, it was evaluated whether the structural model behaves differently between the large company, which presented a higher average perception of practices of CSR, and the medium-sized companies, which presented the lowest averages, from a multi-group analysis.

Multi-group analysis occurred in two stages. First, the structural model was analyzed in each group, where the parameters were free, and the X^2 statistics were additive. An equivalent model was selected. Second, we constrained the selected model's parameters to test the invariance hypothesis. Figure 2 presents the results for medium-sized companies. Our results showed that all the latent variables of perceived CSR practices positively and significantly impact affective commitment. In this group, the perception of practices aimed at society and the environment positively and significantly impacts the instrumental commitment, while the other latent variables of perception of CSR practices did not influence this commitment.

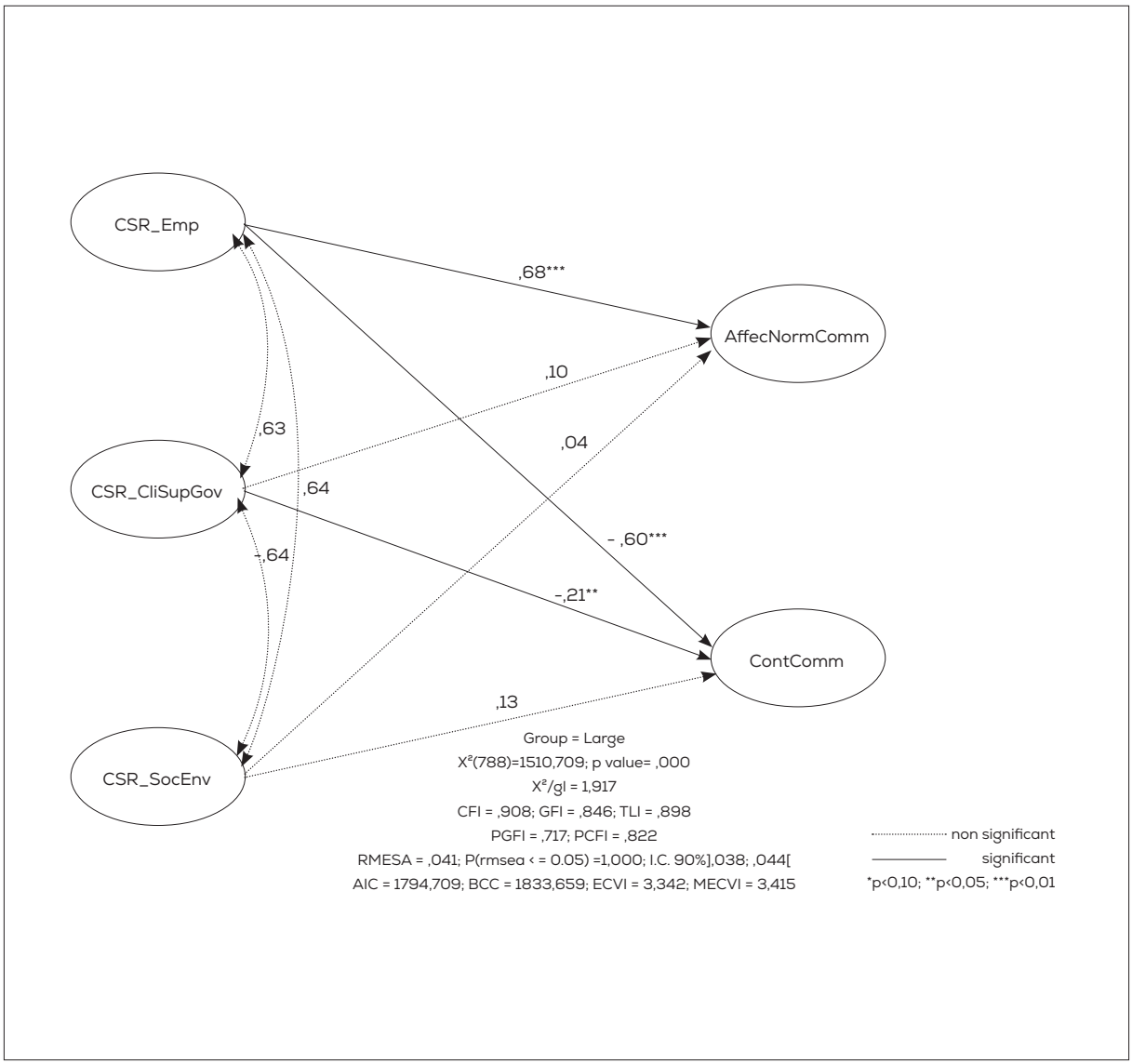
Figure 2. Structural Equation Model of CSR and OC - medium size company group



Source: Elaborated by the authors

Figure 3 presents the model for the large company. Our results showed that the perception of CSR practices related to employees positively and significantly impacted the two types of commitment, while the perception of CSR practices related to clients, government, and suppliers positively and significantly influenced the continuance commitment and no other relationship between latent variables and measurement variables were significant.

Figure 3. Structural equation model of CSR and CO – large size company group



Source: Elaborated by the authors

The adjustment measures were satisfactory (X^2 / gl = 1.917, CFI = 0.908, PCFI = 0.822, RMSEA = 0.041). However, it was necessary to evaluate whether factorial weights and correlations were invariant between the two groups. Table 3 shows the series of hierarchical models with free and fixed parameters. Model 1 was the free model, without setting any parameters, model 2 had fixed factorial weights, model 3 had factorial weights and fixed covariance, and model 4 had factorial weights, covariance, and fixed errors.

Table 3. Statistics of the difference of X^2 for the free and fixed models

Models	DF	CMIN	P
If the free model is correct			
Model 1	25	75.688	0.000
Model 2	31	169.463	0.000
Model 3	63	587.887	0.000
Model 4	39	211.746	0.000
If the model with fixed factor weights is correct			
Model 2	6	93.775	0.000
Model 3	38	512.200	0.000
Model 4	14	136.058	0.000
If the model with factorial weights and fixed covariance is correct			
Model 3	32	418.425	0.000
Model 4	8	42.283	0.000

Source: Elaborated by the authors

The difference test of X^2 allowed us to evaluate the hypothesis of invariance of the moments between the groups in this study. All the p-values were less than 0.05, indicating the rejection of the hypothesis, thus indicating that the models are varied and different. It is also necessary to evaluate the statistical significance of the difference between the two models, made through the chi-square test, as described by Marôco (2010). This test assumes equality of the trajectories between the latent variables in the groups being compared. The values of $|Z| > 1.96$, revealed that the trajectories were different. Table 4 presents the variance test between the models.

Table 4. Test of model's invariance

Latent Variable Trajectories			Z	Assessment
ANC	<---	CSR_Emp	-3.150	Different
CC	<---	CSR_Emp	-0.055	Equal
ANC	<---	CSR_CliSupGov	1.24	Equal
CC	<---	CSR_CliSupGov	2.22	Different
ANC	<---	CSR_SocEnv	1.27	Equal
CC	<---	CSR_SocEnv	0.45	Equal

Source: Elaborated by the authors

It is noticed that the coefficients only refer to the affective/normative commitment related to CSR practices toward employees and instrumental commitment related to CSR practices toward clients, suppliers, and government. The trajectories differ significantly between the two groups. None of the other trajectories differed between the groups of medium-sized companies and the large company.

These results demonstrate that the impact of employee-centered CSR on their affective/normative commitment is significantly higher in the large company. Meanwhile, the impact of CSR toward clients, government, and suppliers on continuance commitment is negative for the large company and is not statistically significant for the medium-sized companies.

DISCUSSION

The development and validation of structural equation modeling (SEM) made it possible to examine important relationships. Our conceptual model indicates that organizational commitment (OC) is influenced by the employee's perception of corporate social responsibility (RSC) practices adopted by textile firms in Brazil. The study used the scales of Turker (2009) and Meyer and Allen (1997). However, these scales were modified to suit the context of the textile sector operating in the Brazilian state of Ceará. The perception factors of CSR practices were grouped into three factors. Perception of CSR practices directed at employees; perception of CSR practices aimed at clients, government, and suppliers; and perception of CSR practices focused on society and the environment.

The classification obtained from the factorial analysis agrees with that proposed by McNamara et al. (2017), which classify CSR activities as "internally focused" and "externally focused." The first group target internal stakeholders (or internal public) under the organization's responsibility (employees and managers). According to McNamara et al. (2017, p. 415), "employees are likely to consider treatment of employees (i.e., the group of which they are a member) as separate from treatment of other stakeholder groups." They can become highly motivated, as well as shareholders, by seeing that their resources are being used efficiently. Employee involvement in the organization can be leveraged with greater participation in decisions and improving internal communication. Thus, the employees surveyed understand their role as particularly important when separate from the other groups of stakeholders.

External stakeholders are clients, suppliers, government, media, competitors, and other stakeholders that affect and are affected by the organization without being at the forefront of their operations. Based on the research participants' perception, the external stakeholders were divided into two groups: 1) clients, suppliers, and government; and 2) society and environment. The first group has a closer relationship with the company while society and environment have less proximity. The environment is marked as more than a specific stakeholder. Laine (2010) defends that the stakeholder network is embedded in the environment. For extension, it is possible to say the same about society, i.e., the other stakeholders are also part of society. Therefore, the second group of external stakeholders encompasses society and the environment.

The OC was grouped into two dimensions: affective/normative and continuance commitment. These clusters were confirmed by confirmatory factor analysis and shown to be valid and significant. From the original instrument, six items were eliminated, and the variables were grouped into two factors: affective/normative and continuance commitment. The first factor was named because it is formed mostly by items of the dimension of affective commitment and two items of normative commitment. Continuance commitment included in the scale "It would be very difficult for me to leave this company now, even if I wanted to," by transmitting an idea of loyalty by not leaving the organization, ended up joining this factor.

Some authors have already exposed the strong relation between affective and normative commitment. Although conceptually distinct, affective and normative commitment are highly correlated and relate in the same way to other variables. The strong correlation between affective and normative commitment suggests that interpretations that promote the desire and obligation mindset may occur simultaneously. It is most desirable to go beyond the interpretation that affective commitment is more important than the others and that one should also consider normative commitment, and especially, a combination of affective and normative commitment (Meyer & Parfyonova, 2010). Klein and Park (2016) point out an overlap between affective and normative commitment, whereas the continuance commitment consists of two other dimensions (high investment vs. few alternatives).

The structural equations modeling (SEM) sought to analyze the impact of each dimension of perception of CSR practices under each dimension of OC to investigate what practices can be perceived by employees as major influencers of their commitment. It showed that the perception of CSR practices oriented to employees and those oriented to clients, government, and suppliers positively and significantly impacted affective/normative commitment, while the perception of CSR practices focused on society and the environment negatively and significantly impacted affective/normative commitment.

The impact of the first two factors of perceived CSR practices on affective commitment corroborated other studies. George et al. (2020) found that CSR to clients and CSR to employees had a significant conditional indirect effect on affective commitment, but a conditional indirect effect of CSR to social and non-social stakeholders on affective commitment was not statistically significant. Bizri et al. (2021) confirmed the significant influence of CSR best practices on job performance, mediated by affective commitment, through the involvement of employees in activities to the community, workplace, or well-being of other employees. Thang and Fassin (2017) presented that internal CSR as labor relations, health and safety, and training and education had a significant effect on OC. Finally, Cruz et al. (2012) concluded that internal social practices, such as the promotion of dialogue and the participation of employees, raise the levels of affective commitment of the employee to the organization.

The results of this research showed that the perception of CSR practices aimed at society and the environment negatively and significantly impacts the affective/normative commitment. These results converge with those by McNamara et al. (2017) that perceptions of externally focused CSR were less strongly associated with affective commitment in Confucian and Latin American countries than in Anglo countries. This negative influence could be based on Brazilian

institutional environments. The textile sector, especially from the Brazilian state of Ceará, does not present a strong culture of adopting CSR practices. The results of this study indicate that employees perceive their companies' few CSR practices in the surrounding community and with the disposal of solid waste. Another explanation resides possibly in commitments conflict (Klein, Solinger, & Duflot, 2020). Employees perceive the reputation that the company can conquer in the market requires costs that could be used with them. They may feel in the background regarding the company's concerns with external stakeholders such as society and the environment.

On the other hand, continuance commitment was positively and significantly impacted by the perception of CSR practices directed at employees, but it was not significantly impacted by the perception of CSR practices directed at clients, government, and suppliers or by CSR for society and the environment. Some employees were oblivious to the practices for clients, government, and suppliers, believing that the company complied with the Brazilian consumer legislation and code only because it had been on the market for many years. The employees reported that if the company did not show responsibility to these groups, it would not have reached such a size and existed for so long. However, employees saw CSR practices directed at external stakeholders as investments that could be reversed in people management policies. In this way, the results were not significant because, in the perception of the employees of the textile sector of Ceará, investments in socio-environmental practices jeopardized the funding of people management practices, threatening the company-employee relationship. In general, these results corroborated those reported by Rodrigues, Bastos, and Moscon (2019) that continuance commitment has a negative relationship with citizenship behaviors.

The study assessed whether the structural model behaved differently between the large company and the two medium-sized companies to deepen the analysis of the impact of the perception of CSR practices on OC. This analysis showed that, regardless of the size of the company, all CSR dimensions positively impact the affective/normative commitment, presenting themselves as stronger among large companies.

There was a significant difference between the large company and the two medium-sized firms. The first showed a better level of communication with managers toward employees, extensively informing the internal recruitment processes, demonstrating concern for employees' health and safety, and promoting vocational learning for young people of local communities who could be its future employees. These actions and programs increased people's affection toward the organization and the perception of having an obligation to the company. These actions lead to higher affective commitment rates in these companies compared to others that do not show the same range of actions for internal stakeholders.

Employees from the large company were stimulated to be volunteers in CSR activities, albeit sporadically. This company also had a professional training and inclusion project for young people in the community. Employees demonstrated to have information about the project and admire the initiative through which the company hired many young people from low-income families. Meanwhile, one of the medium-sized companies only had one educational project dedicated to low-income children.

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The perception of CSR practices aimed at clients, government, and suppliers positively and significantly impacted the continuance commitment in the large company but was not significant in medium-sized companies. The large company employees clearly stated that the organization was concerned with taking good care of their clients, paying taxes, following the law, and ensuring fair commercial relations with their suppliers to achieve a good income and quality of inputs. However, this evidence was not as strong among the medium-sized businesses, where employees reported that they believe that companies play an important role in relations with clients, government, and suppliers.

The variance test of the models showed that trajectories of CSR practices oriented to society and environment only impacted affective/normative commitment. CSR practices toward clients, government, and suppliers differently affected continuance commitment for both groups. In the large company, there are programs for waste reuse and recycling, campaigns to save water, and the "Pescar Project", a socio-professional training project for low-income youth.These practices are widely disseminated within the organization and impact the way employees feel about the company, increasing their levels of affective and normative commitment. Meanwhile, there is a perception that the company has a responsibility to clients.

The difference between these two groups could be explained based on size and levels of adoption of CSR practices. According to Abreu, Silva-Filho, Oliveira, and Holanda-Júnior (2008), as the size of the company increases, the profile of social and environmental conduct tends to a higher level of responsibility. The company where employees showed to have a higher perception of CSR practices was the large company studied. The organization counts on a social responsibility policy and communicates such policy, thus leading to an increase in the influence that the perception of CSR practices has on the employees' OC.

The textile sector demonstrates that it can increase the level of commitment of its employees through CSR practices, although these are more present among large companies in this sector. This study shows that companies can build value through actions for the various stakeholders, positively impacting employees and achieving better performance.

CONCLUSION

The research evaluated the influence of the way the implementation of corporate social responsibility (CSR) practices was perceived over organizational commitment (OC) in textile companies located in the Brazilian state of Ceará. Quantitative research was conducted using exploratory and confirmatory factorial analysis and structural equation modeling. The results confirmed that the way employees perceive CSR practices influences their level of OC, which can be organized in two dimensions: affective/normative and continuance commitment. The variables regarding how CSR practices are perceived are usually divided into four categories but were divided into three categories for this study: practices oriented to employees; practices oriented to clients, government, and suppliers; and CSR practices toward the society and environment.

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The study is not without limitations. First, we recognize the small number of companies researched. Future works evaluating the relation between how employees perceive CSR practices and their levels of OC in other sectors could offer elements to compare with the textile sector. Second, the study could not capture changes in CSR strategies. Longitudinal works could also contribute to this discussion by evaluating how the relationship between these constructs behaves through time. Future works could also evaluate the employees' multiple foci of commitments, demonstrating the conflicts between them. This could explain why certain CSR practices increase OC more than others.

Despite the small number of companies, the number of employees for each company is considerable, which sufficed to build a model. By suggesting a reorganization of the dimensions of CSR practices and the dimensions of OC, this work contributes theoretically to research on developing countries, such as Brazil, demonstrating that this construct behaves differently to what is expected in developed countries. The practical contribution is to demonstrate to companies that the investment in CSR practices could obtain a higher level of commitment and build value through actions for the various stakeholders.

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WHY ADOPT A SUSTAINABILITY APPROACH IN CAREER STUDIES? A THEORETICAL ESSAY ABOUT THE FOUNDATIONS AND THE RELEVANCE OF THE DISCUSSION

Por que adotar a perspectiva da sustentabilidade nos estudos de carreira? Ensaio teórico sobre os pilares e a importância da discussão

¿Por qué adoptar un enfoque de sostenibilidad en los estudios de carrera? Un ensayo teórico sobre los fundamentos y la relevancia de la discusión

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ABSTRACT

Sustainability has been adopted as a perspective for understanding contemporary careers, which enables an analytical view of the reality of work by including human and social impacts. This theoretical essay discusses the foundations of sustainability as a core dimension of the sustainable career concept. As its main contributions, the career sustainability perspective offers a lens for a theoretical analysis emphasizing in a systemic and procedural way, and among other factors: the dynamics of the influence of multiple contexts for the continuity of individual paths; career continuity through time movements and the choices made; the interconnectivity of the diverse actors that influences individual careers; the need for a process which allows adaptive capability to be fostered, and the creation of opportunities for sustainability.

Keywords: career, career sustainability, sustainable career, sustainability social sustainability.

RESUMEN

La sostenibilidad ha aparecido como una perspectiva para la comprensión de las carreras, permitiendo una mirada analítica a la realidad del trabajo y sus impactos en lo humano y social. Este ensayo teórico tiene como objetivo discutir los fundamentos de la sostenibilidad buscando su comprensión y profundizando en ella como elemento sustentador del concepto de carrera sostenible. Como aportes, se observa que la perspectiva de sostenibilidad de las carreras se presenta como una lente teórica de análisis al enfatizar de manera sistémica y procedimental: la dinámica de la influencia de múltiples contextos para la continuidad de las trayectorias individuales; la continuidad de la carrera a través de los movimientos en el tiempo y las elecciones realizadas; la interconectividad entre los diversos actores que participan en la constitución de las carreras individuales; la necesidad de procesos que permitan promover el potencial de adaptación y la creación de oportunidades necesarias para la sostenibilidad, entre otros aspectos.

Palabras clave: *carrera, carreras sostenibles, sostenibilidad de las carreras, sostenibilidad., sostenibilidad social*

RESUMO

Sustentabilidade tem aparecido como perspectiva para a compreensão das carreiras, permitindo um olhar analítico para a realidade do trabalho e seus impactos no humano e no social. Neste cenário, o objetivo deste ensaio teórico é discutir os pilares da noção de sustentabilidade buscando sua compreensão e a aprofundando como elemento sustentador do conceito de carreira sustentável. Como contribuições, a perspectiva da sustentabilidade das carreiras se apresenta como lente teórica de análise ao ressaltar de modo sistêmico e processual: a dinâmica da influência dos múltiplos contextos para a continuidade das trajetórias individuais; a continuidade da carreira através de movimentos no tempo e escolhas trilhadas; a interconectividade entre os diversos atores que participam da constituição de carreiras individuais; a necessidade de processos que permitam o fomento do potencial de adaptação e criação de oportunidades necessário para a sustentabilidade, entre outros aspectos.

Palavras-chave: *carreira, carreira sustentável, sustentabilidade das carreiras, sustentabilidade, sustentabilidade social.*

> *We so love our new holy words that we turn them into clichés and commonplaces, forgetting for the moment that we must maintain their spirit, as well as their meaning. (Abrahams, 1989, p. 44)*

INTRODUCTION

At first sight, it may not sound fitting to use the concept of sustainability for understanding careers. The popularity of "sustainability" as a watchword that is commonly linked to activist movements aimed at environmental preservation and the social issues that are caused by organizations, and involving actions that criticize consumption (Valentin, 2015), lies at the heart of corporate responsibility policies, practices and discourses (Kramar, 2014), and makes it difficult to understand its real meaning. In the words of McDonald and Hite (2018), "[...] references to sustainability have become ubiquitous in our culture (e.g., in job positions, TED talks, and on book covers); however, its meaning often seems vague, open to interpretation [...]". As stated in the epigraph, sustainability currently seems to have assumed the status of a "sacred" word, one that is so enthusiastically celebrated and uncritically reproduced that it sometimes loses its essence and its meaning is associated with clichés and the commonplace (Abrahams, 1989, p. 44).

In order to clarify the importance of the discussion, it would seem relevant to briefly revisit aspects that in recent years have increased the complexity of the world of work, culminating in the introduction of the sustainability dimension in career studies. Technological advances, productive restructuring processes, open markets, and rearrangements between productive forces, have resulted in new ways of living and working, the end of certain types of work and the emergence of other, newer work (McDonald & Hite, 2018). The notion of employment has been redefined considering the new work arrangements and different employment relationships that now exist (Barley *et al*., 2017; Van der Heijden & De Vos, 2015).

Since the beginning of the 21st century, this scenario in career studies has been reflected in the emergence of contemporary understandings that seek to encompass these new work configurations and demands. These perspectives – the so-called "new careers" - intersect and emphasize individual movement between and beyond organizational structures, as opposed to traditional careers, which meant vertical ascension within the same organization (Lawrence, Hall & Arthur, 2015; Van der Heijden & De Vos, 2015). Individuals are now more responsible for their own inclusion in the labor market and for remaining in it, and for managing their own careers. Employability, often used as the guiding logic of this mobility, is linked to the individual search for experiences that help increase one's chances of working in the foreign market, considering the job market as a whole, and internally within the organizational environment (Forrier, Verbruggen & De Cuyper, 2015; Baruch & Rousseau, 2019).

In recent years, however, external and uncontrollable factors have increasingly affected the labor market, and these have put career continuity at risk (McDonald & Hite, 2018). The human consequences of the current organization of work are revealed as the precariousness

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of employment, growth in economic insecurity, and uncertainty with regard to remaining in employment (Greenhaus & Kossek, 2014). The limitations of the potential for individual action focus perspectives exclusively on sometimes unrealistic agency, given the complexity of the relationships that permeate the construction of career trajectories (Akkermans, Seibert & Mol, 2018). In this sense, there is, in the literature on careers, a certain analytical neglect in investigating the role of institutions, contexts, and political aspects for constructing careers, and in job opportunities for the entire workforce (Greenhaus & Kossek, 2014). The COVID-19 pandemic illustrates and reinforces the need to adopt new perspectives for analyzing the reality of work that emphasize strategies for creating long-term career resilience, and go beyond adjusting old theoretical models (Hite & McDonald, 2020).

Assuming the contextual complexity and the need to embrace the different actors' roles in providing opportunities for career development over time, sustainability is a theoretical alternative for analyzing careers in view of the rapid changes in the reality of work (Baruch, 2015; Baruch & Rousseau, 2019). As a branch of its social pillar, career-related sustainability entails protecting and promoting (rather than depleting) human and career development, by emphasizing the individual need for renewal and balancing priorities (Newman 2011). The discussion primarily proposes having a long-term vision and a responsibility that is shared between the organizations and institutions that are linked and working together on social sustainability and, consequently, on its systemic effect on careers. As Van der Heijden and De Vos (2015, p. 2) explain:

> *In today's New Economy, in which uncertainties and difficulties prevail around the world, the focus on career sustainability is of immediate importance. As workers move from an expectation of lifelong employment to the need to protect their employability, it is important to expand our knowledge of those elements that contribute to the sustainability of the careers of all workers, and to deepen our understanding of factors that, at different levels, affect this sustainability (Van der Heijden & De Vos, 2015, p. 2).*

Despite proposing an innovative perspective, however, a more careful reading of the main theoretical studies on sustainability and careers (Baruch & Rousseau, 2019; De Vos, Van der Heijden & Akkermans, 2020; De Lange, Kooij & Van der Heijden, 2015) reveal that the understanding of "sustainability" is often taken as a given, or is little explored in terms of its basic foundations, which makes it difficult to grasp its concept in its entirety. The lack of conceptual universality also contributes to the inconsistent theoretical and practical application of sustainability to different areas of knowledge (Valentin, 2015). In this sense, there is a lot of criticism of the actual possibility of implementing the guidelines of the classic sustainability goals, for example at the organizational level. Sustainable human resource management, which is critical to career studies, commonly faces the contradiction involved in the role of sustainability as a mediator between the profit goal of organizations and the well-being of people at work, especially considering the reality in developing countries, in which many challenges affect individuals and communities and there are different work-related issues (Mascarenhas & Barbosa, 2019). Critics also claim that sustainability emerged and grew stronger in order to promote an ideology for preventing a capitalist reality from showing its true colors (Vizeu, Meneghetti & Seifert, 2012).

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Sustainability is understood here as a theoretical lens for understanding careers in a dynamic way, considering the individual's interaction in those social spaces that permeate trajectories as they develop (De Vos *et al.*, 2020). These assumptions are reflected in the sustainable career concept (Van der Heijden & De Vos, 2015; De Vos & Van der Heijden, 2017), in the process model of the sustainable career (De Vos et al., 2020), and in the career ecosystem theory (Baruch, 2015; Baruch & Rousseau, 2019), which are complementary theoretical concepts that find points of convergence in "sustainability" in its dynamic and procedural sense.

This discussion has been addressed from the social perspective of sustainability, especially in regard to work, based on studies in workability (De Lange *et al.*, 2015), sustainable work systems (Docherty et al, 2009), and human sustainability (Pfeffer, 2010). These perspectives emphasize the social aspect of sustainability that is understood by those processes that favor the maintenance and continuous development of careers, and the promotion of settings that are more inclusive and capable of more effectively covering the challenges of work safety in uncertain contexts (De Lange *et al.*, 2015).

Based on this issue, this theoretical essay presents and discusses some of the fundamental pillars of sustainability and how they are reflected in career studies, in order to emphasize its importance when analyzing contemporary careers. To this end we critically analyzed the conceptual foundations of the discussion of career sustainability in order to identify any conceptual elements that have not been sufficiently well explored hitherto. We considered the references to sustainability in the studies we identified in the literature review on the Web of Science database in October 2020, which were searched for under "title", "abstract" and "keywords", with the terms "*sustainable career**" (115 articles found) and "*career sustainability*" (33 articles found). After excluding articles that do not address "careers" as their main theme, 47 we identified eligible articles, which we carefully read as the authors of this essay, and analyzed their theoretical references in order to understand how "sustainability" is addressed and discussed in these studies. Over the following sections, these references will be accessed and analyzed in depth as a part of this theoretical essay.

SUSTAINABILITY: THE CONTEXT AND MAIN PILLARS OF THE DISCUSSION

The main discussions on sustainability in academic literature invariably mention the definitions of sustainable development and sustainability presented in 1987 by the United Nations World Commission on Environment and Development – the Brundtland Report (Valentin, 2015). Entitled "Our Common Future," the aim of the report was to present an agenda for global change and a common future for humanity (Ehnert & Harry, 2012). The emergence of these questions is strictly related to the world of work, which is shaped in response to the industrialization processes that have been experienced since the 19th century. In addition to the concern with environmental decline, the measures relate to social impact and the continuous waste of human resources due to the dominant focus of nations on economic growth and development. The

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focus falls, therefore on organizations, not only as being responsible for the impacts caused, but as the agents that potentially collaborate to promote practices and actions that lead to the changes sought by the Commission (Valentin, 2015).

Sustainability is presented as an overview of the world, according to which everyone must make an effort so that current needs are met without preventing future generations from being able to meet their needs (Docherty *et al.*, 2009). Underlying this definition is the concept of sustainable development, which is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987, p. 43). Both definitions are considered to be the classic perspective of the discussion, and were adopted as a starting point for understanding the concepts here presented (Docherty *et al.*, 2009; Ehnert & Harry, 2012; Kramar, 2014).

Docherty, Kira, and Shani (2009) interpret the meanings involved in the concept, and outline the existence of three fundamental and interconnected dimensions. The (i) "principle" dimension, which emphasizes the importance of protecting the world's resource wealth through preservation, regeneration, and development. Every generation has a responsibility to protect the resources it uses, and for the processes by which those resources are formed or regenerated. The (ii) "priority" dimension, which defines the priority of meeting people's needs now and in the future, and places them before the desires and ambitions of privileged people in the present. This dimension involves a notion of continuity and encompasses the discussion on social justice that is outlined in the Brundtland Report. Finally, (iii) the "progress" dimension, which highlights the capacity of systems to develop constantly, which is necessary for their renewal and preservation. Inserted in the current context, this dimension is often linked to the role of technological innovation as allies in the search for ecological and social sustainability, in addition to assuming the impact of developing technology and organizations in these areas. The equal ability that innovation has, however, of destroying or harming system continuity must not be ignored, which highlights the interconnection that exists between the principles: resources must be protected by adopting short- and long-term perspectives to enable renewal, while maintaining constant efforts to develop these resources (Docherty *et al.*, 2009).

In line with these principles, the Brundtland Report recognizes the interconnectedness of the ecological, social, and economic factors that are present in the concept of sustainability (Ehnert & Harry, 2012; Kramar, 2014). In 1997, economist John Elkington (2006) coined the term "Triple Bottom Line" for translating this idea for use at the organizational level. The concept states that "corporations and other organizations create value in multiple dimensions," and, in the case of sustainability, it refers to "economic, social or environmental value – added or destroyed value" (Elkington, 2006, p. 523). The main idea lies in assuming that in a sustainable system, human, social, environmental, and economic resources must be able to grow and develop together. It is based on the notion that the operations of a company, or any other work system (public or private organization, for-profit or non-profit), affect not only the shareholders, but also its stakeholders, such as employees, customers, suppliers, the environment, and the surrounding economic system (Docherty *et al.*, 2009; Elkington, 2006), all of whom must be taken into consideration in the business strategy.

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These fundamentals have been applied in organizations and predominantly support the definitions of sustainability in the business world and in management research (De Vos & Van der Heijden, 2017; Kramar, 2014). According to the principles outlined by Docherty *et al.* (2009) and the Triple Bottom Line concept (Elkington, 2006), the characteristics predominantly associated with sustainability include: (i) a focus on the internal and external impacts on the organization, with sustainability being understood in terms of the short- and long-term impacts on different stakeholders; (ii) recognition of the interconnection and interaction of stakeholders with organizational systems and subsystems, with social systems and with the environment in which these systems operate (Kramar, 2014); (iii) the adoption of a short- and long-term notion by assuming the interconnectivity of these systems; and, finally, (iv) considering the interconnectedness of systems and the different effects of these relationships in the strategic decision-making of organizations (De Lange *et al.*, 2015; Docherty *et al.*, 2009).

Although sustainability involves three fundamental pillars, there is a noticeably greater emphasis on the environmental dimension by theorists and in public discourse (Pfeffer, 2010). Organizations have moved center stage due to their intense use of natural resources over 200 years of industrial development, accompanied by a western consumer lifestyle that contributes to environmental degradation (Ehnert & Harry, 2012). The trend towards Green Management strongly penetrates organizational policies and practices (Valentin, 2015), which are supported by a context in which companies are under increasing popular pressure to be "greener" (Pfeffer, 2010). Only in the first decade of the 21st century did social sustainability – or human sustainability – begin to receive special attention from researchers (De Lange *et al.*, 2015). Pfeffer's (2010) definition is frequently adopted (De Lange *et al.*, 2015; Ehnert & Harry, 2012; Kramar, 2014; McDonald & Hite, 2018; Van der Heijden & De Vos, 2015) for defining the differences between the emphasis on environmental sustainability practices, which focus on the "physical" aspects of sustainability, and social practices:

> In the same way that physical sustainability considers the consequences of organizational activity for material and physical resources, social sustainability must consider the way in which organizational activities affect well-being - work-related stress in the human system - and the physical and mental health, as well as the effects of business practices, such as working hours and behaviors, which produce stress in work environment groups and in group cohesion, in addition to being related to the richness of social life, exemplified by participation in civic, voluntary and community organizations (Pfeffer, 2010, p. 35).

Given this situation, sustainability at work is a development of the discussion on sustainability, and is especially relevant in career studies. In this sense, Docherty *et al.* (2009) emphasize the social dimension as a unifying pillar of sustainability, based on the following premises: (1) the opportunity to develop people, professionals and members of society through work experiences, or a person supporting themselves through work; a basic human right; (2) in the contemporary world of work, which is characterized by rapid change, intense intellectual work, global competition, and social values that emphasize equality and human dignity, the sustainability of human and

social resources is one of the foundations of economic sustainability; (3) the sustainability of human resources at work is one of the foundations for the social development and sustainability of entire societies; and (4) the sustainability of human and social resources is necessary to ensure economic sustainability, because only people and groups that operate sustainably are able to understand, prioritize and work towards ecological sustainability.

In this proposal, "sustainability means the dynamic state of becoming sustainable, a process founded on conscious efforts to create new opportunities for existence in multiple domains and at multiple levels, now and in future;" sustainable development, in turn, refers to "the active efforts of people to support this dynamic state of sustainability" (Docherty *et al*. 2009, p. 8). These definitions are based on the concept of human sustainability that was presented by Holling (2001), in which:

> Sustainability is the ability to create, experience and maintain *adaptive capability*. Development is the process of creating, experimenting, and maintaining opportunities. The expression that brings the two terms together, "sustainable development," refers to the objective of encouraging *adaptive capabilities* and creating opportunities. It is not, therefore, an oxymoron, but a term that describes a logical partnership (Holling, 2001, p. 390).

In the context of work, "[...] sustainable development is a change, a learning process that must occur at all levels of the organization: individually, collectively, between organizational levels and beyond them – among organizations, networks, coalitions, and systems (Docherty *et al*, 2009, p.10)"; processes that enable the nurturing of the adaptive potential needed for sustainability (Docherty *et al*., 2009; Holling, 2001). At the individual level, sustainable development involves the continuous process of acquiring new knowledge and skills, and especially "reflection on assumptions, attitudes, beliefs and values" (Docherty *et al*., 2009, p. 11). These notions enable career conceptions that are essentially centered on the role of the agency, to be extended in order to emphasize the interaction between the individual and social spaces that permeate their trajectories, as well as the results of these relationships (Van der Heijden *et al*., 2020).

The section below will explore these issues by bringing together the concepts and definitions developed by Docherty *et al*. (2009) and Holling (2001) in career ecosystem studies (Baruch, 2015; Baruch & Rousseau, 2019) and workability (De Lange *et al*., 2015), and then focus on sustainability as a concept through the perspective of sustainable careers (Van der Heijden & De Vos, 2015; De Vos *et al*., 2020).

THE DIMENSION OF SUSTAINABILITY IN CAREER STUDIES: THE CAREER ECOSYSTEM THEORY AND A DISCUSSION OF WORKABILITY

Like the Brundtland Commission's assumptions with regard to the need to take into consideration the interrelationship of different stakeholders (Kramar, 2014), the sustainability dimension

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brings to careers the notion of interconnectedness between the different players that participate in the constitution of individual careers. Career is defined as the sequence of work experiences throughout an individual's life that has its own complexity in accordance with the reality experienced (Van der Heijden & De Vos, 2015). The discussion of sustainability is, therefore, included in the proposal of the concept to broaden the understanding of the construction of careers at the individual level, while also considering: (i) the influences of different actors and career contexts; (ii) the changes that occur in these contexts; and (iii) the dynamic nature of these contexts (De Vos, Dujardin, Gielens & Meyers, 2016).

Baruch (2015) presents a proposal to articulate the perspective of the systemic interaction between actors that is inherent in sustainability, based on the ecosystem notion. Applying the logic of the ecosystem to careers assumes understanding its operation in a constellation that is part of a political, social, and economic phenomenon in a global context (Baruch, 2015; Baruch & Rousseau, 2019). The term "ecosystem" is inherited from ecology and, based on its conceptual foundations, is adopted as a metaphor for introducing a career perspective that considers the interrelationship, influence, and interaction of actors at each level of the system:

> [...] an ecosystem is a holistic and integrated ecological concept, which combines living organisms and physical resources to the system. I define career ecosystems as a metaphorical use of the concept of ecosystem adopted to the field of management and behavioral sciences, in which organisms are replaced by human beings, and the physical environment is replaced by a complex system of labor markets – organizations, from small to large, private to public, national to global companies (Baruch, 2015, p 365).

The career ecosystem perspective is mentioned in studies on sustainable careers (De Vos *et al*., 2016; De Vos & Van der Heijden, 2017) to clarify the systemic and dynamic interactivity that exists between actors and social spaces in career development. External economic and social factors can change the dynamics of the career ecosystem, and lead to actors searching for equilibrium in the system. Every change in the world of work has implications for individuals and all other actors involved in career-related policies at the organizational and societal level. While organizations must reconsider the meaning of the organizational career and how career management can accommodate both individual and organizational needs, policymakers face challenges related to employment sustainability and employability that involve the entire workforce (De Vos *et al*., 2016). In this sense, the perspective of career ecosystems as a theoretical analytical lens enables the identification and analysis of, factors that limit or create opportunities for career development and their sustainability (*push and pull factors*),(Baruch & Rousseau, 2019; Guo & Baruch, 2021), allowing the actors involved to undertake actions that contribute towards a more sustainable career.

As the master of their own career, the individual is the main actor in the system, able to have a more incisive impact on sustainability through decisions that directly or indirectly affect the continuity of their career (Baruch, 2015). Sustainability, in this individual scope, resides in the capacity for adaptation and development within a system aimed at ensuring a state

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of equilibrium (Docherty *et al.*, 2009; Holling, 2001), which is achieved through dynamic adjustments that (re)shape active relationships between actors and learn from these interactions (Baruch, 2015). It is a continuous lifelong learning process, in which individuals continuously affect their career potential through the choices they make with regard to their mobility, learning, and the numerous ways in which they acquire new skills (Baruch, 2015; De Vos *et al.*, 2016). Internal factors, such as behavioral aspects, especially proactivity and initiative, personal values, and experiences that are directly or indirectly related to work (McDonald & Hite, 2018) are relevant to sustainability as they guide individual development in the system (De Vos *et al.*, 2020; Van der Heijden & De Vos, 2015).

The need to build employability is linked to sustainability and associated with the ability to work. The individual search for experiences that encourage employability should not, however, compromise career development in the medium and long term. The notion of employability relates the role of actors in providing job opportunities and developing sustainable careers (Lawrence, Hall & Arthur, 2015) by way of organizational policies and practices that foster the development of learning and skills (Bozionelos, Lin & Lee, 2020), for example, or via public policies aimed at diversity and inclusion (Gupta & Priyadarshi, 2020; Brzykcy, Boehm & Baldridge, 2020). This discussion is often approached from the perspective of workability (De Lange *et al.*, 2015), which expresses the extent to which an individual is able to work in the present and near future, considering their physical and mental resources, and the work demands that are required at the performance level. Workability is literally the ability to work, referring to the physical, psychological, and social conditions that affect career continuity. The World Health Organization's definition of "health" is a state of complete physical, mental, and social well-being, and not just the absence of disease or infirmity (Aalbers & De Lange, 2015; De Lange *et al.*, 2015; Bozionelos, Lin & Lee, 2020).

The main studies on workability emphasize the role of economic, legal, and political organizations and institutions in promoting practices aimed at sustainability at work (Aalbers & De Lange, 2015; De Lange *et al.*, 2015). Individual well-being is the ultimate purpose of these propositions, as it is an essential condition for sustaining careers in the long run. Analogous to the concept of sustainability, workability highlights the shared responsibility of different actors to preserve human resources in work settings. De Lange *et al.* (2015) analyze the ability to work on three levels: (i) the micro level, which is influenced by variables related to health in general, lifestyle, functional abilities, personal experiences, and other characteristics that are inherent in individual reality; (ii) the meso level, in which the variables predominantly belong to the scope of work, considering, for example, effects such as ergonomics, physical load, the leadership styles that influence motivation and individual well-being; and, (iii) the macro level, which refers to relationships and the social context (e.g., social support, rules and regulations/laws) as potential influencers (De Lange *et al.*, 2015).

A theoretical alternative for articulating discussions on workability in career studies was carried out via the procedural notion known as the sustainable career, which assumes career sustainability to be the result of the interactions of individuals in the different social areas that combine to make up their trajectories. This possibility will be addressed below, based on

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fundamental approximations between the understanding of sustainability and the theoretical assumptions that support the concept of sustainable career.

SUSTAINABLE CAREER: SUSTAINABILITY AS A CONCEPT IN CAREER STUDIES

Van der Heijden and De Vos (2015) present the concept of sustainable career as "[...] 'the sequence of an individual's different career experiences, reflected through a variety of patterns of continuity over time, crossing several social spaces, and characterized by individual agency, herewith providing meaning to the individual" (p.7). In line with the notion of the interconnectedness of actors and social spaces that are set out in the notion of sustainability, De Vos *et al.* (2020) suggest the concept should be understood from a systemic perspective, highlighting the influence of the multiple contexts that influence and affect them, and from a dynamic perspective, aimed at capturing the way that changes over time impact and constitute elements of career sustainability. To do so, the authors start from four fundamental dimensions that constitute contemporary conceptions of career: time, social space, agency and meaning.

In terms of a systemic perspective, the sustainable career theory assumes that the individual is the main actor, and is active in managing their career. They influence and are influenced by the social spaces or the contexts that permeate them (De Vos *et al.*, 2020). In this sense, career sustainability needs the involvement of several stakeholders who work on career trajectories, which the theory points out as being influenced by the international context, the national context, the political system, the educational system, the labor market and the organizational context (De Vos *et al.*, 2016). The assumptions in Baruch's (2015) proposal on career ecosystems and the principles of sustainability (Docherty *et al.*, 2009; Holling, 2001) are directly related to this aspect, which highlights the interconnection between these contexts. The individual, as the main person responsible for conducting his/her career, characterizes the "agency" dimension (Van der Heijden & De Vos, 2015; Lawrence *et al.*, 2015). The agency capability, however, is limited or made possible by the contextual conditions that result from the individual's interaction with the actors who permeate their trajectories. Behavioral aspects inherent in employability precepts are especially relevant for sustainable trajectories (De Vos *et al.*, 2020).

From a dynamic perspective, the concept of the sustainable career emphasizes the cycles of events and decisions that permeate individual careers, and "clarifies how factors internal to individuals and within their context change over time" (De Vos *et al.*, 2018, p. 2). This in particular comprises the "time" dimension in relation to his/her interaction with society, as being the individual's development over the years. This means understanding careers to be a phenomenon that is situated both in time and historically (Van der Heijden *et al.*, 2020), considering the different events that lead to structural changes in work and consequently affect individual careers: for example, processes for restructuring production, the globalization of the economy (Baruch & Rousseau, 2019) and, more recently, the impacts of the COVID-19 pandemic (Hite & McDonald, 2020).

The essence of sustainability is the ability to continue over time (Docherty *et al*., 2009). It is lifelong decisions that will determine career sustainability, in which there is a diversity of possible continuity patterns, involving cycles of transition between jobs and roles, such as changing companies and temporary status as a result of a particular event (unemployment, voluntary work, gap year). Each decision-making process involves the particularities of the career moment that is experienced, such as insertion and professional qualification (Blokker, Akkermans, Tims, Jansen, Khapova, 2019), the need for career ascension, preparing for retirement, and other constituent elements of professional trajectories (De Vos *et al*., 2016; Van der Heijden & De Vos, 2015), in addition to limitations or opportunities in the social sphere. At this point it is important to analyze the circumstantial aspects that are inherent in the socioeconomic conditions that permeate career development, especially in countries like Brazil where there is a structural discrepancy in opportunities and access to resources.

From its dynamic aspect, career sustainability can also be understood as a cyclical and self-regulated process, in which positive and negative experiences and events, and the way these events are perceived and interpreted by the individual and the different stakeholders involved, provide opportunities for what De Vos *et al*. (2020, p. 2) call "dynamic learning". This is a process by which the individual captures opportunities from the various experiences and events they experience, and incorporates them in the personal context (by developing skills and competences) and in a number of the social spaces with which they interact. Dynamic learning thus allows individuals to influence and adapt to the contexts in which they participate, thereby improving their self-awareness and their understanding of their personal and organizational context, and more broadly, of the labor market (De Vos *et al*., 2020).

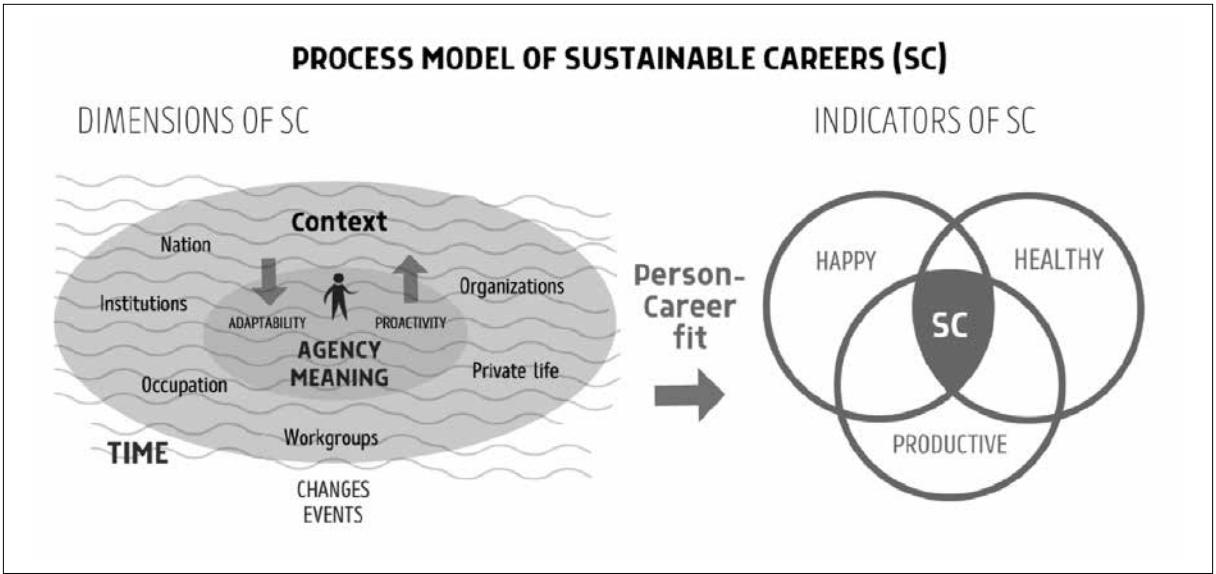
The term "cyclical" is used to express the perspective of continuity present in the general notion of sustainability (Docherty *et al*., 2009), in which career sustainability implies protecting and promoting (rather than depleting) human and career development, by redefining the person-career fit (Greenhaus & Kossek, 2014; Van der Heijden & De Vos, 2015). This fit is guided by what gives meaning to the person, an aspect that also changes according to the implications that social spaces have with regard to careers. The "meaning" attributed to careers is, in itself, fundamental to the concept of a sustainable career, referring to the particularities of each individual being considered with regard to the subjective criteria of success. It is inherent in the agency issue, as it guides the sense of direction towards career choices that are considered relevant to the moment. It can involve both objective aspects of career – salaries and bonuses - and subjective criteria of success, referring to intrinsic needs: self-fulfillment, flexible careers that facilitate the balance between work and life, a career with less intense demands, with greater mental and physical well-being, and a number of other possibilities (De Vos *et al*., 2016, 2020; Van der Heijden & De Vos, 2015). Meaning is also related to the opportunities or structural limitations of socioeconomic aspects, which emphasize the systemic character of career development.

Based on our understanding of sustainability as a dynamic state, a process based on efforts aimed at creating and maintaining an adaptative capability (Docherty *et al*., 2009; Holling, 2001) that is applied to careers through the need to develop employability (Van der Heijde & Van

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der Heijde, 2006) and workability (Aalbers & De Lange, 2015), De Vos *et al*. (2020) introduce three indicators of sustainable careers: "productive", "healthy" and "happy". These indicators represent aspects that are essential for individual prosperity, as well as being foundations for the individual's well-being in the different social spaces with which they interact (Van der Heijden & De Vos, 2015). Aligned and balanced, these dimensions integrate the characteristics of sustainable careers. Figure 1 graphically represents this relationship.

Figure 1. Sustainable Career Dimensions and Indicators



Source: Adapted from De Vos et al. (2020).

Career sustainability is achieved from the person-career dynamic fit based on different experiences that ensure a balance between these indicators. The systemic perspective assumes the influence of the context (social space), in which the theory highlights work groups, organizations, occupation, nation (legislation, demography), various institutions, as well as aspects of private life, and the various changes in the person, and the importance of their potential for adapting through proactivity, and their initiative in regard to building a sustainable career. The person, who is central to the model (agency), is in constant interaction with the context (grey arrows), in which "proactivity" and "adaptability" stand out as fundamental behavioral aspects for sustainability. The dynamic perspective refers to changes that establish the need for the dynamic adjustment of the individual in their interaction with their life and career contexts. This process is necessary given the events that constantly permeate the trajectories and contexts of careers, and require the individual to adapt and change. Sustainability indicators are guided by the "meaning" dimension, the intrinsic and specific needs that are prioritized at a certain point in the career (time dimension).

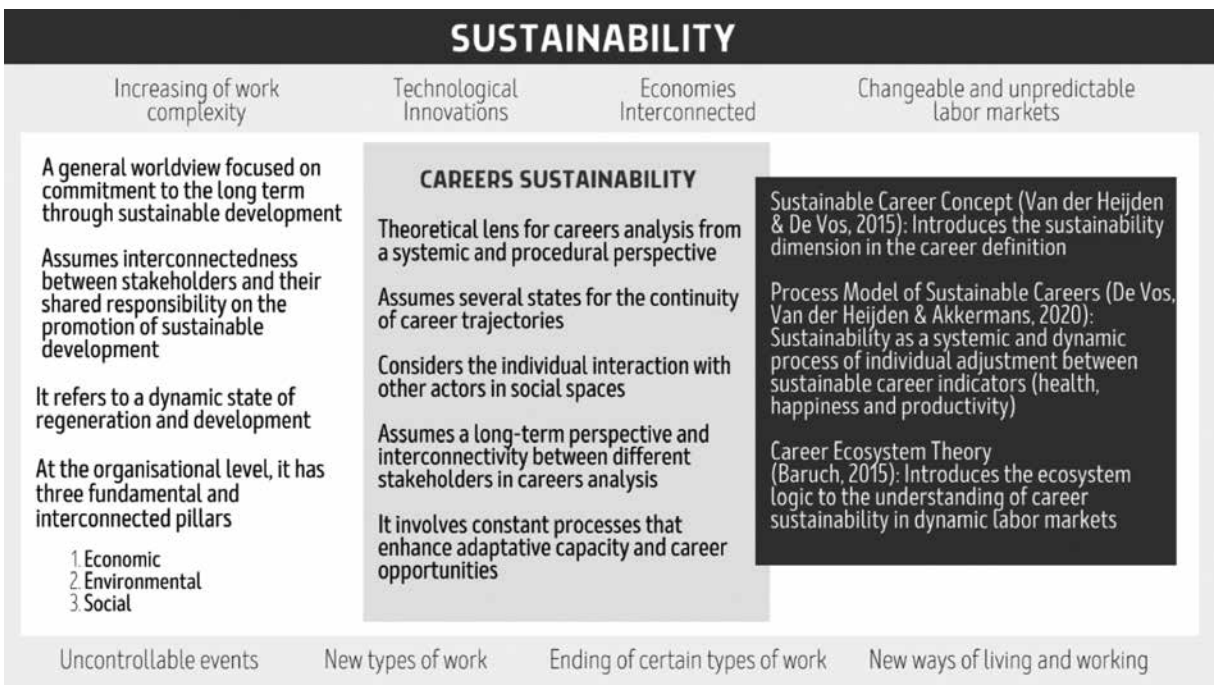
The fundamental character of employability for conquering and maintaining a space in the labor market implies the inclusion of this aspect in the dimension related to "productivity," understood as: a good performance at work (when there is some kind of bond with the organization);

high employability or future career potential; or even the development of competences in conformity with the demands of the labor market. "healthy" means the mental and physical health of individuals, and is related to the perception of well-being and the quality of life, elements that are, in themselves, indicators of career sustainability. Finally, "happy" involves the perception of success or career satisfaction, and emphasizes the need to align career with individual values, career goals, or work-life balance and personal growth as indicators of sustainability, which are aspects that are variable due to the moment experienced (De Vos *et al.*, 2020).

While "productive" is associated with the need to develop constant employability, the "healthy" and "productive" dimensions are related to the long-term work capability (workability) as a central aspect for career sustainability. The dynamic fit between the indicators refers to the understanding of sustainability as a process, and not as an ultimate state, as discussed by Holling (2001) and Docherty *et al.* (2009). The connection between the indicators reinforces the interdependence of employability with aspects related to well-being, a fundamental attribute for sustainability, which extends the understanding of employability as being centered on the development of learning to encompass the influence of structural elements that affect career continuity.

The sustainable career concept and the process model of a sustainable career are complementary theoretical perspectives, which address the dimension of sustainability in its dynamic and systemic nature. As well as the career ecosystem theory, these proposals incorporate the classic foundations of the sustainability discussion, offering theoretical lenses for analyzing career development in the current work context, which is primarily marked by mutability, complexity, and uncertainty. These relationships have been articulated throughout this theoretical essay and are summarized in Figure 2.

Figure 2. Discussion of Sustainability in Career Studies



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FINAL CONSIDERATIONS

This essay was written to articulate and discuss elements that justify the importance and "whys" of adopting the sustainability perspective in careers. The arguments presented herein assume there is a need to clarify the conceptual bases of understanding sustainability in its social dimension for comprehending its application as a theoretical and conceptual lens for analyzing careers based on the development of individuals in multiple contexts over time.

In this sense, the notions of "career sustainability" and "sustainable careers" are distinct and complementary approaches. Career sustainability is a process. It is a dynamic state of constant transformation in response to changes in the world of work, while preserving and developing aspects that are intrinsically important to human prosperity. It is not a static, linear, and predictable process, but is subject to constant cycles and different experiences that constitute life and career trajectories, characterized as being more or less sustainable according to the results of the relationships between the actors in the short, medium, and long term. The concept of the sustainable career represents an ideal type, an analytical tool that uses the dimension of sustainability as a theoretical lens to investigate the different patterns of career continuity, the influence of the actors and structures, and by way of indicators maps out those factors that contribute to or inhibit the individual's ability to build a career in different contexts. As Lawrence, Hall, and Arthur (2015, p. 444) point out in the Handbook of Research on Sustainable Careers:

> It seems unlikely that any person or corporate executive would disagree that sustainable careers are good for workers as well as organizations. The definition including work- ability and employability is a win–win. However, these attributes raise several questions about how we explore the subject. Sustainable careers represent an 'ideal type'. We may never be able to pin down what is or is not a sustainable career. Rather, we may need to identify more and less sustainable careers.

Since each career path is subjective and unique, there is no way to define what constitutes a sustainable career. The indicators, however, allow the individual and contextual factors that contribute to more or less sustainable paths to be identified and understood (De Vos *et al.*, 2020), thus facilitating the action of important factors, such as organizations and institutions linked to work, in promoting the practices and policies that foster career sustainability at the individual level, and social sustainability as a systemic consequence of this intervention. Delving deeper into the fundamentals of sustainability clarifies the particularities of the concept of the sustainable career, which accommodates its general fundamentals under three central notions: (i) continuity, presenting a long-term perspective as a career change; (ii) constant development by way of dynamic learning processes; (iii) renewal and balance through adaptability, which is possible because of the person-career dynamic fit between the "productive", "healthy" and "happy" indicators of career sustainability, which are considered the foundations of individual prosperity (De Vos *et al.*, 2020).

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An important contribution of the article in this regard is that it emphasizes looking at career continuity, which involves the need for attention to be paid to well-being, health, and the relevance of work and social life, which implies human and social development as a basis for economic development. The emphasis on different actors and contexts and on the dynamics of these relationships reveals the interconnection and interaction of these actors with organizational systems and subsystems, with social systems and with the environment in which these systems operate (Kramar, 2014), which are a promising reference for expanding career analysis.

Individual agency is also central to understanding adaptive movements in the career ecosystem. This look at career sustainability, however, aims to broaden this view by assuming a systemic and dynamic perspective of the relationships between individuals and contexts, and the actors operating in these contexts, with an emphasis on the contextual interaction process, and highlighting contextual conditions and aspects, such as the importance of resilience and adaptation (of both individuals and systems), and a long-term focus. In studies carried out in Brazil, the ecosystem perspective is appropriate for revealing those structural aspects that reinforce inequalities in work and career opportunities, and subsequently guide intervention opportunities by way of public or organizational policies.

In addition to technologies and other structural aspects that have had an impact on work, the current global crisis caused by the COVID-19 pandemic highlights the importance of adopting a systemic perspective. As the report by the International Labour Organization (2021) points out, by the end of 2021 around 200 million people will be unemployed globally, and a large part of the workforce has had their wages reduced, thereby increasing the number of poor working people by around 8.8 million. Given this scenario, as demonstrated in relevant international studies (Akkermans, Richardson, & Kraimer, 2020), the person-context relationship interaction is an interesting analytical alternative for understanding the impacts on careers given the challenges created by the pandemic.

Although there is no explanation of the fundamental issues required for analyzing careers and their dynamics in the Brazilian context, which is marked by historically-produced social differences (related to class, race, gender), the sustainability dimension reveals inequalities through the longitudinal observation of career patterns in different analysis groups. We suggest that these aspects should be studied in future discussions of careers, and the ecosystem as a whole, when the particularities of each actor, or even broader contextual elements, such as the internationalization and digitization of work, should be emphasized.

Expanding the understanding of careers with a focus on the interaction between actors is, therefore, one of the main contributions of this study as it clarifies the inclusion of the sustainability dimension in career studies. This procedural perspective adds a unique aspect to existing career theories by allowing a systemic and dynamic understanding as careers develop, by following the contextual changes and actions of different actors. As a theoretical lens, sustainability thus contributes a new way of understanding careers, which is capable of encompassing the complexity of the relationships between a person and the different social spaces with which he/she interacts. From looking at a recent field of study that has extensive theoretical and practical

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possibilities, we offer the notion of the "dynamic state" becoming sustainable because of its potential for adaptation, experimentation, and the creation of new opportunities.

As a theoretical implication, the study also examines discussions on sustainable careers and career sustainability within the context of Brazil, using approaches that were specifically developed in research centers in the Netherlands that are renowned for being avant-garde in several fields. As seen above, sustainability as a process goes beyond the concept of a sustainable career, enabling the demographic and socioeconomic contextualization of Brazilian regions that have characteristics that are different from those found in Europe, which makes the topic attractive for problematization and new avenues of investigation.

This theoretical essay promotes reflections on the role of organizations as the facilitators of sustainable careers, and suggests some conceptual foundations that can be used for guiding future practical actions that have a systematic impact on social sustainability in its broadest sense. As its ultimate goal, the study is expected to motivate organizational practices or public policies that address the concept of "sustainability" in their fundamental pillars, considering the importance of these actors for fostering sustainable careers. Going beyond the hype surrounding the term and its discursive implications, effective efforts are needed to ensure that the sustainability perspective is fully applied and developed, and thus clearly benefits all actors in the career ecosystem.

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AUTHOR'S CONTRIBUTION

Camila Vieira Müller and Angela Beatriz Scheffer both worked on the conceptualization and theoretical-methodological approach, on the conduction of the theoretical review, in the discussion and analysis of the adopted theory, as well as on the writing and final revision of the manuscript.

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ORGANIZATIONAL VALUES AS ENABLERS FOR THE CIRCULAR ECONOMY AND SUSTAINABILITY

Valores organizacionais como suporte para a economia circular e a sustentabilidade

Valores organizativos como apoyo para la economía circular y sostenibilidad

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ABSTRACT

The transition towards the circular economy (CE) requires that organizational values be examined in more depth and understood more fully, which can encourage innovation and sustainable attitudes. The majority of the studies on this matter, however, only address the technical aspects of the transition to a CE. The aim of this paper was to identify and analyze those organizational values that are essential for sustaining a culture that incorporates concepts of circularity and sustainability. Using a multi-method approach, we identified a list of 29 circular values and proposed a definition for each one. The values identified were discussed with regard to their importance in achieving sustainability. By way of a case study we also exemplified the adoption of circular values and how the specific organization we studied is nurturing those values. This seminal study enriches discussion of the importance of soft factors for the transition to a CE. It also embraces the relevance of human resource management in organizations for boosting sustainability.

Keywords: circular economy, organizational culture, organizational values, sustainability, innovation.

RESUMO

A transição para a Economia Circular (EC) requer o aprofundamento e a compreensão dos valores organizacionais, os quais podem estimular e encorajar inovações e atitudes sustentáveis. Entretanto, a maioria dos estudos aborda majoritariamente aspectos técnicos para essa transição. Portanto, o objetivo deste artigo foi identificar e analisar valores organizacionais essenciais para sustentar uma cultura que incorpore conceitos de circularidade e sustentabilidade. A partir de uma abordagem multimétodo, identificamos 29 valores circulares e propomos a definição de cada um deles. Os valores identificados foram discutidos em relação à sua importância para alavancar a sustentabilidade. Ademais, exemplificamos, por meio de um estudo de caso, a adoção de valores circulares e como essa organização específica está nutrindo esses valores. Este estudo seminal enriquece a discussão sobre a importância de soft skills para a transição para a EC. Além disso, ele fomenta a relevância da gestão de recursos humanos nas organizações para impulsionar a sustentabilidade.

Palavras-chave: *economia circular, cultura organizacional, valores organizacionais, sustentabilidade, inovação.*

RESUMEN

La transición hacia una economía circular (EC) requiere una profundización y comprensión de los valores organizativos, que pueden estimular y fomentar las innovaciones y actitudes sostenibles. Sin embargo, la mayoría de los estudios abordan los aspectos técnicos de esta transición. Por lo tanto, el objetivo de este artículo fue identificar y analizar los valores organizativos que son esenciales para sostener una cultura que incorpore circularidad y sostenibilidad. Utilizando un enfoque multimétodo, identificamos 29 valores circulares y propusimos una definición para cada uno de ellos. Los valores identificados se debatieron en relación con su importancia para la sostenibilidad. Además, ejemplificamos con un estudio de caso la adopción de valores circulares y cómo esa organización está desarrollando esos valores. Este estudio seminal enriquece el debate sobre la importancia de soft skills para la transición a la EC. Además, fomenta la relevancia de la gestión de los recursos humanos para impulsar la sostenibilidad.

Palabras clave: *economía circular, cultura organizativa, valores organizativos, sostenibilidad, innovación.*

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INTRODUCTION

Human activity worldwide has been causing different social and environmental problems and increasing the pressure from consumers, society, governments, and the market for more sustainable businesses, a situation that is directly affecting the strategic orientation of organizations. Since the linear "take-make-dispose" economic model is facing worsening challenges (Ellen MacArthur Foundation [EMF], 2012), the circular economy has been gaining the attention of organizations. CE is a viable way of redefining the concept of economic growth, with a focus on ensuring greater effectiveness in the use and management of resources, environmental quality, inclusiveness, and the well-being of populations (Cotec, 2016). It is an economic model based on shared values and a long-term systemic vision (Confederação Nacional da Indústria [CNI], 2018). It can create sustainable value, since its implementation enables adverse impacts to be minimized while including new ways of doing business (Buren, Demmers, Heijden, & Witlox, 2016). It also has a direct relationship with sustainable development and can contribute to the achievement of the sustainable development goals (SDGs) that were established by the United Nations (UN) (Schroeder, Anggraeni, & Weber, 2018).

Most definitions of CE have in common the optimization of the value of products, components and materials (Bocken, Pauw, Bakker, & Grinten, 2016; EMF, 2012; Prieto-Sandoval, Jaca, & Ormazabal, 2018), which is reflected in process changes. The transition towards circularity, however, requires more radical changes and innovations in business models and ecosystems for it to be effective, since the CE operates at the micro (products, enterprises, and consumers), meso (industrial ecoparks) and macro (cities, regions, nations) levels (Kirchherr, Reike, & Hekkert, 2017). The implementation of innovations in business models for a CE requires simultaneous changes in structures, processes, technologies, mindsets, culture and ecosystems (Bocken, Schuit, & Kraaijenhagen, 2018; Konietzko, Bocken, & Hultink, 2020; Pieroni, McAloone, & Pigosso, 2019); that is, in order to develop sustainable and circular business models, organizations must reinvent themselves and adapt different aspects, including proposing a culture that incorporates circular and sustainable concepts and strategies (Gue, Promentilla, Tan, & Ubando, 2020).

Organizational culture (OC) is a key element for supporting changes for achieving a CE, since corporate culture transmits a sense of identity and, through beliefs, values and norms, determines how to do business (O'Donnel & Boyle, 2008). OC can be defined as:

> "The pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems. (Schein, 1984, p. 3)."

In order to achieve the organizational changes required for a CE, it is important to consider not only the different levels of the organization (individuals, groups and the organization as a whole) (Lloria & Moreno-Luzon, 2014), but also the interrelationships between individuals and their capacity to adapt to their particular environment. Organizational changes depend on the acceptability of individuals and will be more effective if perceived as being central to the organization's survival (Buchanan et al., 2005; Dawson, 1994).

Organizational values, as the "heart of the culture of an organization" (Posner, 2010, p. 536), are generally the basis for integrating essential performance and operational requirements into a results-oriented structure (Lagrosen & Lagrosen, 2019) and, therefore, they must be clearly communicated and shared. Furthermore, these values can guide innovation, since they influence organizational behavior and constitute motivational goals (Miguel & Teixeira, 2009).

Several authors have expressed the importance of adapting the OC to implement the CE (Bashir & Verma, 2019; Bustinza, Gomes, Vendrell-Herrero, & Tarba, 2018; Isensee, Teuteberg, Griese, & Topi, 2020). Norms, values, visions, concepts, tools, instruments, and indicators should be checked and adjusted in order to enable the CE (Korhonen, Honkasalo, & Seppälä, 2018). Despite the importance of cultural aspects in the transition towards a CE and all the efforts required to develop the CE literature, the OC and the values that support the transition to a CE are little explored (Jabbour et al., 2019; Korhonen, Nuur, Feldmann, & Birkie, 2018). There are just two studies in literature that clearly address discussions about a CE-oriented culture (Bertassini, Ometto, Severengiz, & Gerolamo, 2021) and circular organizational values (Barboza, Bertassini, Gerolamo, & Ometto, 2020).

Therefore, considering the scarcity of studies in the field and the importance of understanding the values that support an OC that addresses the specifics of the CE, this paper aims to: (i) identify those organizational values that support the development of a CE-oriented culture; (ii) discuss the importance of identifying circular organizational values for sustainable development; and (iii) exemplify, by way of a case study, the adoption of circular values and how a specific organization nurtures those values. This is done to encourage organizations to move towards a CE based on aspects inherent in the individual and collective unconscious.

METHODOLOGY

This research adopts a multi-method procedure (i.e., "research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches" (Tashakkori & Creswell, 2007, p. 3)) based on the phases proposed by Bardin (2011) in his content analysis theory. Content analysis comprises a set of analysis techniques to obtain, by systematic and objective content description procedures, those indicators that allow knowledge to be inferred. According to Duncan (1989), the content analysis method "lies at the crossroads of qualitative and quantitative methods" (p. 27); therefore, it enables different techniques to be combined.

Combining quantitative and qualitative methods can boost the strengths and perspectives of each method, especially with regard to an unknown phenomenon (Johnson & Onquegbuzie, 2004; O'Cathain, Murphy, & Nicholl, 2008; Östlund, Kidd, Wengström, & Rowa-Dewar, 2011), and provide a better approach and the potential to widen the repertoire of traditionally-used research

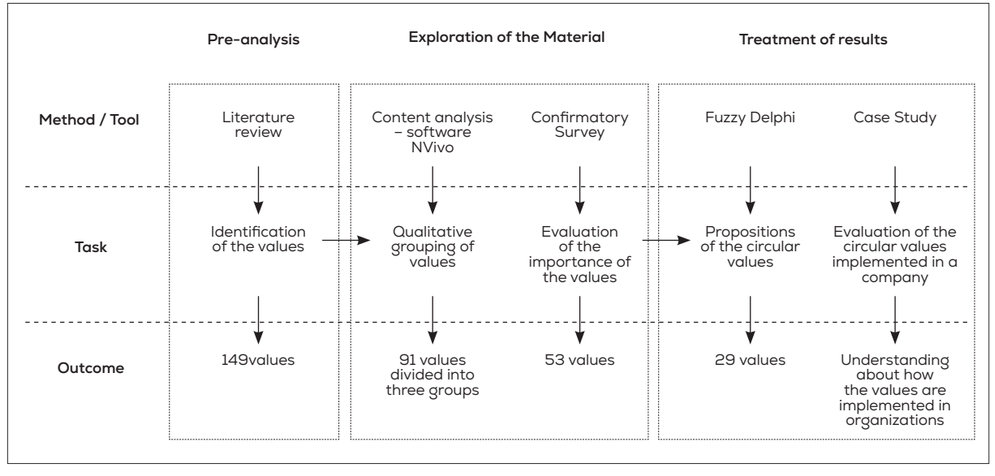
methods (Creswell & Clark, 2007; Molina-Azorin, 2016). In this study, this combination plays an important role, since we are dealing with a field that is complex and with regard to which there is limited literature.

This study evaluated the topic in diverse dimensions in order to increase the reliability of the results, and to encompass the benefits outlined by Greene, Caracelli and Graham (1989) and Molina-Azorin (2016): complementarity (integrating the results/analysis of one method with the findings from another); development (the contribution of the results of one method towards helping with the development of another); and expansion (extending the breadth and scope of research using different methods).

The qualitative data were collected before the quantitative data in this study in order to first explore and investigate the research problem, and then to analyze it from a quantitative perspective that is amenable to study (Molina-Azorin, 2016). In order to ensure the validity of the answers their theoretical and qualitative content was consolidated following evaluation by experts in the subject, who quantitatively analyzed the data using methods that are recognized in the literature for the application of questionnaires.

The phases followed in this study are presented in Figure 1 and described in detail in the next subsections.

Figure 1. Outline of the methodology applied in this study



Pre-analysis

The procedures adopted in this phase were well-defined to cover the initial contact with the literature for formulating the hypotheses and indicators that contribute to the study's development (Câmara, 2013). Due to the novelty of the theme, a systematic review of literature was unsuitable, so the authors opted for an exploratory review that could result in more information and better results.

We consulted company reports, literature cases and the institutional websites of organizations that already adopt sustainable and circular practices and mindsets, such as members of the Ellen MacArthur Foundation's Circular Economy 100 Program (established to enable organizations to develop new opportunities and rapidly achieve their ambitions in the CE), and those recognized by The Circulars (the world's premier CE awards). We also searched for organizational values in academic literature related to the CE, such as sustainability, innovation, change management, recycling, waste management, renewable energy, eco-design and Industry 4.0. As a result, we identified and defined 149 preliminary organizational values that could be related to the CE.

Exploration of the material

In this phase the data were systematically transformed and aggregated into categorization units (Santos, 2012) in order to allow for interpretations and inferences to de developed. We used the NVivo software to code the data qualitatively and a confirmatory survey involving CE experts.

Application of the NVivo Software

NVivo was used to analyze and filter the organizational values we identified. This software is used for analyzing qualitative information, which enables textual data to be organized and categorized by analyzing words, sentences and/or paragraphs (Silva, Figueiredo, & Silva, 2015).

The definitions of the 149 organizational values previously identified were used as input. Using the NVivo results and after thorough analysis, the values were grouped by similarity of definition and a preliminary categorization was proposed according to the relationship of the values with the process of the transition towards the CE and with circular principles:

Group 1: Values that are basic to any company, whether they target the CE or not.

Group 2: Values related to the transition process towards the CE, that is, those that are essential for proposing any kind of change and/or innovation.

Group 3: Values related to the future state of a circular company, that is, those that are essential for supporting a circular organizational culture.

This preliminary treatment of the data enabled us to reduce the number of identified organizational values to 91.

Confirmatory survey

A confirmatory survey was carried out to validate the grouping of the organizational values. According to Forza (2002), a confirmatory survey aims to test the appropriateness of the content, hypotheses, and concepts that are developed in relation to certain phenomenon.

The survey was developed on the Google Forms platform and, in the period between May and August 2020 (a long period because of the COVID-19 pandemic), sent to theoretical and practical experts in the CE and sustainability fields. To identify the target audience, we looked for contacts in scientific articles related to the CE, company reports, social media, university research groups, and others. We also used the "snowballing" method, which is a research technique that is recommended when the population cannot be strictly delimited or detailed, thus aiming to identify other individuals of interest for consultation (Dragan & Isaic-Maniu, 2013). This method includes the researchers identifying individuals for interview, who, in turn, must indicate/recommend other interviewees who can contribute to the research.

Survey respondents were asked to classify the 91 values on a Likert five-point scale (from 0 to 4) in relation to the importance of the value for the transition to the CE, based on BSI 8001 (0= Unimportant; 1= Not very important; 2= Moderately important; 3= Important; 4= Very important) - See Appendix 1. A total of 60 valid responses were collected. The demographic data are shown in Table 1. The sample of respondents was sufficient to achieve the aim of its application because a very specific group of experts was chosen to answer the questionnaire.

The data were statistically treated using the IBM SPSS Statistics software for carrying out statistical, predictive, descriptive, prescriptive, and regression analyses. We also performed frequency and descriptive statistical analyses (mean, median, mode, error deviation, variance, sum and percentiles).

In addition to descriptive statistics tools, the Binomial Hypothesis Test was applied according to Gosavi (2015). When applying the Likert scale, it is often interesting to determine how many respondents are on each of the sides, or whether there was a statistical tie. The Binomial Test facilitates this analysis by providing a test of statistical significance. To apply this test, for each organizational value evaluated by the respondents, we combined the answers at Levels 3 and 4 into one group (Group 1) and the Level 0 and 1 answers into another group (Group 2). Level 2 was considered "neutral". The significance level (α) we adopted was 0.05.

Considering pi to be the estimated proportion of the population belonging to Group i, and Li is the number in the i-th group (Gosavi, 2015), in this study we assumed that L1≥L2. Taking these facts into consideration, we tested two hypotheses to evaluate the disposition of the survey data:

H0: $p1 \leq p2$ (null hypothesis).

H1: $p1 > p2$.

Table 1. Distribution of the demographic profiles

Demographic Group	Variables	Frequency n=60	%
Gender	Female	28	46.7
	Male	32	53.3
Age	24-30 years old	17	28.3
	31-37 years old	12	20.0
	38-44 years old	13	21.7
	45-51 years old	9	15.0
	> 51 years old	9	15.0
Location	Brazil	40	66.6
	Denmark	4	6.6
	Italy	3	5.0
	United Kingdom	3	5.0
	Colombia	2	3.3
	The Netherlands	2	3.3
	Albania	1	1.7
	Australia	1	1.7
	France	1	1.7
	Lebanon	1	1.7
	Spain	1	1.7
	Taiwan	1	1.7
Workplace	Educational Institution	54	90.0
	Private Company	6	10.0

We calculated the confidence intervals using the Binomial Test, and if they do not overlap the null hypothesis can be rejected and the group with the highest number of respondents can be considered the "winner" in a statistical sense. On the other hand, if the confidence intervals overlap, the null hypothesis cannot be rejected and no definite conclusions can be drawn (Gosavi, 2015).

In general, if the null hypothesis was rejected at the established confidence level, we could state that the number of respondents who assessed the value as being "Important" or "Very Important" (Levels 3 and 4) for the transition to the CE exceeded the other levels. If the null hypothesis was not rejected, however, no definitive conclusions could be drawn.

Therefore, by applying the confirmatory survey, we were able to filter the initial list of values and identify 53 organizational values that were assessed as being important for innovation and for the transition towards the CE. However, since the results of some values were very heterogeneous, and we were consequently unable to reach a definitive conclusion, we had to apply a new filter to validate the data and obtain a more reliably consensual result.

Treatment of the results

This phase involved the inference and interpretation of the results to make them significant and valid (Câmara, 2013). According to Bardin (2011), this phase comprises a moment of intuition and reflective and critical analysis. We used the Fuzzy Delphi Method and a case study to validate the results.

Fuzzy Delphi Method

The Fuzzy Delphi Method (FDM) is a combination of the fuzzy theory and the traditional Delphi Method for considering human linguistic preferences in decision making (Saffie, Shukor, & Rasmani, 2016). This method makes it possible to capture vague information and convert it into a numerical format, which is simpler to handle. While predictions in the traditional Delphi Method are based on answers obtained from a panel of experts in two or more rounds until these answers converge, in the FDM the decision process is faster and eliminates the need for multiple rounds (Raut & George, 2018). Answers are analyzed using fuzzy numbers, which reduces the error level.

The 53 values we previously identified in this study were analyzed by eight CE experts (part of the CE Research Centre at the University of São Paulo) using the FDM. We developed a questionnaire, in which the experts were asked to rate the degree of importance of each of these values for sustaining a CE-oriented OC on a Likert Scale from 1 to 5 (1 = Not important; 2= Not very important; 3 = Moderately Important; 4 = Important; 5 = Very Important / Essential). We applied and analyzed the questionnaire in September 2020.

The experts' answers were converted into triangular fuzzy numbers to identify the level of agreement with each item, as shown in Table 2. In general, the triangular fuzzy number consists of a fuzzy number that is displayed with three real numbers (F= (L, M, U)), where the upper bound, U, is the maximum value of the fuzzy number, the lower bound, L, is the minimum value of the fuzzy number, and M is the largest probable value of a fuzzy number (formal crisp value for the fuzzy set) (Habibi, Jahantigh, & Sarafrazi, 2015).

Table 2. Triangular fuzzy numbers considered in this study

Not important	Not very important	Moderately important	Important	Very important/Essential
(0.0; 0.0; 0.25)	(0.0; 0.25; 0.5)	(0.25; 0.5; 0.75)	(0.5; 0.75; 1.0)	(0.75; 1.0; 1.0)

After *fuzzification*, the experts' answers were aggregated (Fuzzy Aggregation - FA) from an average of each expert's triangular numbers, as shown in (1):

$$FA = \frac{\sum L}{n}, \frac{\sum M}{n}, \frac{\sum U}{n} \quad (1)$$

Defuzzification was then performed in order to obtain the best average, that is, to convert the fuzzy values into clear and understandable numbers. There are different methods for this, but in this study, we used the Center of Area (CA) formula (2), where F*i* is the fuzzy aggregation for the limit *i*.

$$CA = \frac{|(FU-FL|-|FM-FL|}{3+FL} \quad (2)$$

Finally, to analyze the results obtained with the CA formula, we established four levels of evaluation (Strong, Moderate, Weak, and Nonexistent) according to the relationship of organizational values required for supporting an OC that focuses on the CE (See Table 3). We selected these ranges taking into consideration the average cutoff value of 0.5 according to the literature (Saido, Siraj, DeWitt, & Al-Amedy, 2018; Yusoff, Hashim, Muhamad, & Hamat, 2021).

Table 3. Cut-off values for analyzing the results

Relationship sustaining a CE-oriented OC	Between	
	>	≤
Strong	0.8	1.0
Moderate	0.5	0.8
Weak	0.2	0.5
Nonexistent	0.0	0.2

We rated 29 values as having the strong relationship needed for maintaining a CE-oriented OC (i.e., CA>0.8). These values are emphasized in this paper as being circular organizational values, i.e., essential organizational values for sustaining a circular OC.

Case study

Since few real cases have ever been published that explicitly set out the circular values that an organization has for developing its culture and establishing the path to the CE, between April and August 2020 we carried out a single case study in a multinational company in the steel and mining sector that is a leader in steel production in Brazil. A case study is a "comprehensive description of an individual case and its analysis" (Starman, 2013, p. 31), the aim being to identify variables, structures, forms and orders of interaction among the participants in a "real life" setting, which enables comparisons to be made with a theoretical analysis (Simons, 2009; Starman, 2013).

We have not been allowed to disclose the name of the company, so we are calling it 'Alpha'. We chose this company because of its importance to the Brazilian economy and its sustainable and circular initiatives. The sector in which the company operates is considered to be one of the most polluting, but the company is engaged in socio-environmental responsibility initiatives and has different projects, actions and mindsets in favor of sustainability and the CE, which stimulate the role that steel can play in a low-carbon circular economy for fostering sustainable development.

Our objective in applying this case study was: to exemplify whether the values that a real organization that wants to be circular has are indeed circular; and to identify the circular values the company is implementing and how it is implementing them. In conducting the case study, we combined interviews and document analysis. We carried out 13 semi-structured interviews with managers and analysts (see Figure 2 and Appendix II). We selected only people who work directly with sustainability and CE in the organization to take part in the interviews in order to have a more focused understanding of the organization's panorama of circular values.

Figure 2. Details of the case study



RESULTS AND DISCUSSION

Greater sustainability and circularity in organizations require changes in the way value is generated and business is done (Pieroni et al., 2019). This can be achieved by analyzing and understanding the human factor and the resources available for influencing the collective behavior of stakeholders that is required for achieving new organizational goals (Maitlis & Lawrence, 2007). Studying cultural issues when aiming at organizational paradigm shifts is important, because culture has a powerful function to perform in shaping human evolution (Boehm, 2008), and engagement with the CE and sustainability are affected by cultural dimensions (Morais, Pinto, & Cruz-Jesus, 2021).

Assessment of the OC usually focuses on organizational values (Linnenluecke & Griffiths, 2010), as they play an important role in organizations by influencing organizational structure, identity, and strategy (Gorenak & Kosir, 2012), and affecting business performance (Malbasic & Posarie, 2017). The main finding of this study, therefore, was the identification of those organizational values that support the transition towards the CE. These values are related to the future state of a circular company, that is, they are essential for supporting a circular organizational culture.

Generally speaking, in order to ensure its survival in the market every organization cultivates its own basic/core values, such as motivation, respect, integrity, excellence, and prosperity. Organizations that already have an innovative side cultivate values such as ambition, creativity, agility, proactivity, flexibility, and audacity, which stimulate motivation and inspiration in individuals for facing up to challenges, seeking new opportunities, and taking risks. In addition to these values are those that are relevant for sustaining and leveraging a CE-oriented OC, which are defined as circular organizational values. In this sense, organizations seeking to implement a CE should nurture, share and communicate to their entire business ecosystem a set of values that suits their corporate environment. Exhibit 1 shows the proposed circular organizational values and their definitions.

Exhibit 1. Circular organizational values

Organizational Value	Definition
Adaptability	The ability or willingness to change to suit different conditions.
Availability	The quality or condition of someone who is open to influences or ideas.
Awareness	Internalizing the importance of inclusion and respect for ethical values, preservation, sustainable development, and the quality of life.
Collaboration	Working with other people or organizations to create or achieve something in common.
Commitment	The state or quality of being dedicated to a cause or activity. A strong motivation to make efforts to achieve the organization's goals and values.
Communication	Two-way process of reaching mutual understanding, in which participants not only exchange information, news, ideas and feelings, but also create and share meaning.
Concern	Paying attention to implement mechanisms that stimulate production, consumption, and sustainable development.

(Continue)

Exhibit 1. Circular organizational values (Concludes)

Organizational Value	Definition
Continuous improvement	The desire to make the results better, more efficient and more effective.
Diversity	Feature of a mixed workforce that provides a wide range of abilities, experience, knowledge, and strengths.
Effectiveness	Achieving the desired results in the best way possible, so that the organization uses its resources intelligently and rationally.
Engagement with business ecosystems	The openness to participate in business ecosystems and associate with various types of companies, aiming to create a constantly evolving relationship in which each entity is flexible and adaptable in order to survive.
Ethics	The set of beliefs about what is morally right and wrong. The fundamental assumption of human behavior under which natural resource management decisions should be aimed at present consumption, without prejudice to future generations.
Future-oriented	Planning ahead before acting. Having a long-term view.
Humanitarian	An individual who desires the good of humanity. Being involved in, or linked to improving people's lives and reducing suffering.
Impact	The powerful effect or influence that something has on a situation, person, organization, society, or the environment. Positive impact in different areas (economic, social, and environmental).
Innovation	Creating and implementing new ideas that can be applied in products/services, processes, business models and value chains.
Longevity	The durability of something. Extending product life.
Openness	The ability to listen to comments, feedback, concerns, and new ideas, receive criticism, and engage in dialogue.
Proximity	Investing in a positive relationship with the different stakeholders of the organization.
Resilience	The ability to return to its original state after being disturbed.
Responsibility	Accepting responsibility for one's actions, admitting mistakes and learning from them. Considering the interests of society, assuming the impact of one's activities on customers, suppliers, employees, shareholders, communities, and other stakeholders, as well as on the environment.
Sharing	Sharing relevant information, ideas, suggestions and experiences with suppliers, research institutions, technology centers, universities, users, society, and other organizations.
Sustainability	Meeting present needs without compromising the ability of future generations to meet their own needs. Providing economic, social and environmental benefits simultaneously.
Synergy	The potential ability of individual organizations or groups to be more successful or productive as a result of cohesion and mutual efforts around a common goal.
Systemic innovation	An interconnected set of innovations, where each influences the other, with innovation both in parts of the system and in the ways in which they interconnect.
Systemic thinking	Understanding the interdependent relationships between the various components that make up the organization, as well as the environment with which they interact.
Transparency	A situation in which activities are conducted openly, without secrets, so that people can trust that they are fair and honest.
Waste reduction	Minimizing waste at source to reduce the amount needed to be treated and disposed of, which is usually achieved by better product design and/or process management.
Welcoming	Something or someone that invites or attracts by its characteristics.

Here we perceive that following the application of the confirmatory survey, the values, for which there was almost a consensus in terms of answers (>60%) at the highest levels of importance for the CE that we established in this study, were those that are most related to circular principles and to sustainability (including the SDGs), such as: collaboration, commitment, engagement in business ecosystems, ethics, future-oriented, innovation, sustainability, systemic thinking, and waste reduction. When discussing the CE, it is noticeable that much is said about sustainability, because sustainable production and consumption are central to the CE (Patil, Seal, & Ramakrishna, 2020).

There is a direct relationship between circularity and sustainable development because of the desire to benefit present and future generations by simultaneously creating environmental quality, economic prosperity, and social equality (Saidani, Yannou, Leroy, Cluzel, & Kendall, 2019). In order for organizations to become more sustainable, their sustainability activities need to fit in with the desired OC and be considered authentic across the business ecosystem. In this sense, the values identified here can drive the CE and consequently be a lever for sustainable development in organizations.

According to Salvioni and Almici (2020), a drastic change in values is needed to develop specific awareness of socio-environmental responsibility. These values should be shared among all stakeholders to inspire good practices, behaviors, and mindsets that are aligned with different SDGs. Rodriguez-Anton et al. (2019) stated that CE initiatives form strong relationships and have synergies with different SDGs, especially with SDG6 (Clean Water and Sanitation), SDG7 (Affordable and Clean Energy), SDG8 (Decent Work and Economic Growth), SDG9 (Industry, Innovation, and Infrastructure), SDG11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG13 (Climate Action), SDG14 (Life Below Water), and SDG15 (Life on Land). The CE is a tool that can be used globally and by different stakeholders to help achieve different SDGs. The circular organizational values identified in this study can also be great instruments for inspiring and engaging stakeholders to strive for common goals.

In this case study we also notice that in order to support the maintenance of a circular OC, Alpha emphasized sustainability as a core value. Kirchherr et al. (2018) stressed this idea and stated that the CE offers an innovative pathway to sustainable development, enabling the development of a modern, competitive, and at the same time, more sustainable economy (Rodriguez-Anton, Rubio-Andrada, Celemín-Pedroche, & Alonso-Almeida, 2019). Alpha nurtures reputation, loyalty, and transparency as values that guarantee the credibility of its products, services, and people with its stakeholders. Leadership, quality, health, and security are values expressed by people in the organization. Values like innovation and creativity are not so well disseminated, since the company is still very traditional, and it should make an effort to better integrate those values into its culture since they are essential for sustaining a circular OC. In addition to these values, the company should also strengthen other values, such as openness, collaboration, proximity, and humanitarianism for alignment with a circular OC.

The perpetuation of behaviors, beliefs, and principles that are favorable to circularity and sustainability requires that the values that have been identified in this paper and that focus on responsible production and consumption should be spread throughout the whole business ecosystem. These values are: the willingness and motivation to protect ecosystems and communities; the promotion of reuse, recycling, refurbishing and sharing of products and services to eliminate waste; an orientation towards long-term value creation in an innovative, flexible, resilient, and systemic way; the establishment of inclusion and engagement practices among stakeholders; and open, clear and transparent dialogue. Besides fostering circularity these values, have a strong relationship and synergy with sustainable development, especially from the 2030 Agenda perspective.

To form a long-lasting OC these values must be well communicated and shared throughout the business ecosystem, especially by strong leaders who disseminate those values that are socially and environmentally responsible (Hoffman, 1993). Alpha emphasized that its leaders have a fundamental role to play in demonstrating that the CE is not just on paper, but is a proposal for changing the culture by defining goals, resources and internal strategies. The company's top management must transmit the company's values to the employees, who, in turn, should pass them on in behaviors in the workplace and social environment, and to other stakeholders. Shared attitudes and beliefs are practiced on a daily basis and are habitually inspired through training.

Alpha has various behaviors that are aligned with its shared values. For example, the company encourages team engagement and motivation for developing solutions in the CE and sustainability fields. It arranges periodic meetings to present and evaluate issues to do with the development of CE projects. It trains everyone in the company in the basics of sustainability, and communicates all the projects and investments it is developing in a transparent way. Once there is alignment throughout the business ecosystem, the values of the circular organization are intended to inspire employees with creativity, motivation and empowerment for implementing circular and sustainable initiatives, and achieving the desired goals (Gorenak & Kosir, 2012).

The company also knows that there are beliefs that need to be strengthened in order to stimulate these behaviors, such as: "As a team, we're stronger than my individual opinion"; "If I work through the customer experience, I can generate work that is more interesting for my employees as well"; "I believe that employees can own their roles, and, regardless of any hierarchy, can make their contributions". Alpha also promotes the continuous improvement and excellence of its products and its people in order to be on the same level as its competitors, at least. As with any organizational change process, however, gaps are identified in the skills and resources that are needed.

Organizations generally need to look beyond its walls to create a viable business that has a positive impact on the whole ecosystem. Organizational values affect not only the internal work environment, but can also have an impact on the global values' system of individuals outside the work environment (Cambra-Fierro, Polo-Redondo & Wilson, 2008; Gond & Herrbach, 2006; Vitell & Ramos-Hidalgo, 2006).

The pressure for a more sustainable business is increasing and consideration of organizational values can help build a resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation, in accordance with SDG9. Circular practices, initiatives, mindsets, and behaviors are essential for promoting sustainable industrialization and an inclusive economy, particularly considering industrial symbiosis, remanufacturing and closed-loop supply chains (Kruchten & Eijk, 2020), which can evolve from the circular and sustainable organizational values that balance the "triple bottom line" (planet-people-profit), such as those presented in this paper.

The alignment of organizational values throughout the business ecosystem can enable a trajectory towards a CE and sustainability, thus generating positive externalities (Cambra-Fierro et al., 2008). As stated by Crane (1995), strong sustainability and a CE-oriented culture require consensus among individuals and organizations with regard to environmental values. Culture is created by way of time, values, attitudes and materialized issues, and can be both powerful and subtle enough to make the entire business ecosystem rethink its role in sustainable development. When it comes to the CE and sustainability, the involvement of the entire business ecosystem is vital for the smooth running and effectiveness of the business.

CONCLUSION

This paper identified and analyzed different organizational values that can help organizations in their journey towards a CE. Although understanding the criteria related to the OC is vital for sustaining and incorporating organizational changes and transformations, there are still limitations in the literature with regard to the specific characteristics of circularity.

Throughout the study, we observed that circular organizational values are essential for supporting an enduring OC in the transition to a CE, and for leveraging sustainable development. Organizational values are key elements for guiding organizational change, because they influence behaviors and build organizational identity. Values must be periodically reviewed in order to align them with the desired OC. Strong support from top management is also essential for disseminating a circular culture throughout the organization and its business ecosystem.

To promote sustainable industrialization and an inclusive economy, organizations should analyze, understand and identify those organizational values that are aligned with the desired OC. The circular organizational values identified in this study support the achievement of different SDGs because they encourage a motivating and innovative work environment and have great potential for encouraging sustainable attitudes. Organizations, therefore, should make every effort to create, change, and/or adapt a culture that supports a CE and sustainability.

The exploratory and theoretical characteristic of this study could be seen as a limitation, so we suggest that future research should focus on more practical and propositional research based on multiple case studies and more quantitative approaches. It should adopt a more systemic approach to bringing up the role of organizational values in the transition towards a CE from the ecosystem perspective and considering individual and collective aspects. This will help analyze the role and significance level of each circular organizational value identified by the

study in its transition towards a CE. There are also uncertainties and differences with regard to the assessment of the values required for a CE, which makes clear the need for further studies in the area. Doubts about the terms and a lack of clarity with regard to the relationship between organizational values and the CE still exist, as does the importance of organizational values as instruments for guiding change. This relationship should be fostered in order to enable innovation and motivate the stakeholders to strive to achieve common goals.

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FORUM | **Organizational values as enablers for the circular economy and sustainability**
Luisa Lavagnini Barboza | Ana Carolina Bertassini | Mateus Cecilio Gerolamo | Aldo Roberto Ometto

AUTHORS' CONTRIBUTION

Luisa Lavagnini Barboza and Ana Carolina Bertassini worked on the conceptualization and theoretical-methodological approach. The theoretical review was conducted by Luisa Lavagnini Barboza. Data collection was coordinated by Luisa Lavagnini Barboza and Ana Carolina Bertassini. Data analysis included by Luisa Lavagnini Barbosa. All authors worked together in the writing and final revision of the manuscript was coordinated by Aldo Roberto Ometto and Mateus Cecilio Gerolamo.

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OCCUPATIONAL HEALTH AND SAFETY: QUALITY AND DETERMINANTS OF ITS DISCLOSURE IN SUSTAINABILITY REPORTING

Saúde e segurança no trabalho: Qualidade e determinantes da sua divulgação no relato de sustentabilidade

Salud y seguridad en el trabajo: Calidad y determinantes de su divulgación en los informes de sostenibilidad

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ABSTRACT

This study analyzes the quality of occupational health and safety (OHS) disclosures and their determinants, taking as a sample the reports of 101 European Union (EU) companies included in the official database of the Global Reporting Initiative (GRI) for the year 2018. Content analysis served to build the quality index regarding the companies' OHS disclosures. The index was then used as a dependent variable in one-way ANOVA and multiple linear regression models. We found that the quality of OHS disclosures is, on average, 12 points out of 30, which is significantly influenced by three determinants: the region of Europe, certification of the OHS management system, and external assurance of the reports. There is higher quality in Northern Europe, followed by Southern Europe, compared to Central and Eastern Europe, and Western Europe.

Keywords: GRI standards, quality, sustainability reports, corporate social responsibility, occupational health and safety.

RESUMO

Este estudo analisa a qualidade das divulgações de saúde e segurança do trabalho (SST) e as suas determinantes, tendo como amostra os relatórios de 101 empresas da União Europeia integrantes na base de dados oficiais da GRI, para o ano de 2018. A análise de conteúdo permitiu a construção do índice de qualidade das divulgações de SST das empresas. Tal índice é posteriormente utilizado como variável dependente dos modelos ANOVA de um fator e de regressão linear múltipla. Conclui-se que a qualidade das divulgações de SST é, em média, 12 pontos em 30, sendo que esta é significativamente influenciada por três determinantes: a região da Europa, a certificação no sistema de gestão de SST e a detenção de garantia externa nos relatórios. Verifica-se uma maior qualidade na região Norte da Europa, seguindo-se a do Sul da Europa, face à Europa Central e Oriental e à Europa Ocidental.

Palavras-chave: *GRI standards, Qualidade, Relatórios de Sustentabilidade, Responsabilidade Social Empresarial, Saúde e Segurança do Trabalho.*

RESUMEN

Este estudio analiza la calidad de las divulgaciones de seguridad y salud en el trabajo (SST) y sus determinantes, utilizando como muestra los informes de 101 empresas de la Unión Europea incluidos en la base de datos oficial de la Global Reporting Initiative (GRI) para el año 2018. El análisis de contenido permitió la construcción del índice de calidad de las divulgaciones de SST de las empresas, utilizado posteriormente como variable dependiente del ANOVA de un factor y de los modelos de regresión lineal múltiple. Se ha concluido que la calidad de las divulgaciones SST es, en promedio, de 12 puntos sobre 30 y que está influenciada significativamente por tres determinantes: la región europea, la certificación en el sistema de gestión de SST y la tenencia de una garantía externa en los informes. Se ha registrado una calidad más alta en el Norte de Europa, seguida por el Sur de Europa, en comparación con Europa Central y Oriental y Europa Occidental.

Palabras clave: *estándares GRI, calidad, informes de sostenibilidad, responsabilidad social corporativa, salud y seguridad laboral.*

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INTRODUCTION

Every year, around three million deaths are associated with work-related accidents and illnesses, and more than 370 million non-fatal accidents occur worldwide (International Labour Organization [ILO], 2019). Takala et al. (2014) associate these disturbing numbers with a negative economic impact of 4% in terms of world gross domestic product (GDP) and report that, in some countries, this value rises to 6% or more.

The European Pillar of Social Rights (EPSR) highlights in its principle 10 that "workers have the right to a high level of protection of their health and safety at work". Despite the growing attention paid to OHS, there is still a lack of recognition given its material weight for corporate financial health. For this reason, the human right to a healthy and safe workplace is being jeopardized, in many cases penalizing the most vulnerable party, the worker. OHS is represented in three of the UN's 17 sustainable development goals as part of Agenda 2030.

The literature suggests that OHS is a relevant matter for several stakeholders such as companies, shareholders, workers and their families, trade unions, regulators, health care providers, insurers, and society (International Labour Organization, 2013). To influence society's perception and ensure the preventive nature of OHS, its communication, usually through sustainability reports, has become integral not only to organizational performance but also to daily management (Araújo & Ramos, 2015; D. Malan, Radjy, Pronk, & Yach, 2016). This matter presents challenges for the sustainable and socially responsible human resources management of organizations (Westerman, Rao, Vanka, & Gupta, 2020).

This study aims to address concerns raised by international bodies regarding the need to pay greater academic attention to the OHS disclosures of enterprises. Thus, to analyze the quality of OHS disclosures and the factors that influence such quality, we will focus on the most recent update of the Global Reporting Initiative (GRI) Standards, particularly its OHS guidelines, which we will label GRI 403: OHS 2018 in this paper. The sample we have gathered consists of 101 EU companies, belonging to the four regions of Europe, namely, Central and Eastern, Northern, Southern, and Western Europe, whose integrated or sustainability reports for the year 2018 are available in the official GRI database. Two research questions will be addressed.

1. What is the level of quality of the OHS information disclosed by the companies?

2. Is the quality of the companies' OHS disclosures influenced by the region, sector, OHS management system, size, external assurance, capital market listing, and whether the company is multinational?

FORUM | **Occupational health and safety: Quality and determinants of its disclosure in sustainability reporting**
Catarina Alves | Maria da Conceição Ramos

THE IMPORTANCE OF OCCUPATIONAL HEALTH AND SAFETY IN SUSTAINABLE MANAGEMENT

OHS concerns the promotion, prevention, and maintenance of the highest degree of physical, mental and social well-being of workers (Montero, Araque, & Rey, 2009).

Economic dimension and promotion of OHS

The companies' approach to OHS is primarily aimed at reducing the workers' compensation costs, leaving aside the benefits to their investments and the total costs borne by the organization, workers, and society (Tompa, Dolinschi, & Oliveira, 2006). However, occupational accidents and illnesses have manifold impacts on companies and can represent significant financial losses (Freitas, 2016).

Investing in OHS contributes to the well-being of workers and proves to be profitable. Several studies have shown that each euro invested in OHS yields twice as much for employers (European Commission, 2017a). The logic of investing in OHS is rooted in the avoidance of accidents and illnesses at work, thus reducing risks and lowering costs (Fabius et al., 2013). The challenge lies in maintaining a culture of prevention that encompasses society as a whole (Walters, 2005). The adoption of preventive measures is widely underrated, and despite the progress achieved in laws and inspections, the working conditions for most workers in the world do not meet the established minimum standards (ILO, 2019).

To ensure sustainable economic and social development, global approaches to OHS are fundamental, especially considering the informal economy, the growth of emerging risks, and the physical, mental, and social well-being of workers. It is also crucial to continuously implement dissemination actions that can lead to greater awareness among the parties involved, improving the means of communication (Ramos & Patrício, 2018).

Benefits of OHS in Corporate Social Responsibility (CSR)

A safe and healthy workplace, as well as the promotion of a culture of risk prevention, are two of the principal social responsibilities of a company (Montero et al., 2009). In the absence of a universal definition, the European Commission (2011) defines CSR as "the responsibility of enterprises for their impacts on society" (p. 7).

The link between OHS and CSR leads to benefits for companies, particularly in terms of image, reputation, customer loyalty, increased productivity, and financial results (Montero et al., 2009). Additional benefits are visible to shareholders, as information on OHS activities is useful in analyzing the company's long-term performance (Nagata et al., 2017). Conradie, Smit, and Malan (2016) mention positive impacts on the company's financial performance and share price.

The benefits for workers are associated to the incentive to define their values and their fundamental rights at work (Celis, Bobadilla-Güémez, Alonso-Almeida, & Velasco-Balmaseda, 2017).

This leads to another competitive advantage related to the ability to attract and retain highly skilled, talented workers (Earle, 2003), culminating in increased protection and prevention which improves the workers' health and safety and, therefore, their quality of life (Hart, 2010).

Sustainability reports and Global Reporting Initiative (GRI) Standards

The ILO (2019) states that not only is it vital for companies to take joint action in adopting effective OHS data collection systems, but also to improve the use of OHS data for analysis and reporting.

According to GRI (2016), a sustainability report is "the practice of an organization to publicly disclose information about its economic, environmental and social impacts" (p. 3). CSR disclosure is voluntary but there are several legal requirements under Directive 2015/95/EU of the European Parliament, for the disclosure of non-financial information. For example, it is mandatory for companies with more than 500 employees to present an annual non-financial statement "containing information relating to at least environmental matters, social and employee-related matters, respect for human rights, anti-corruption and bribery matters.". This directive states that CSR, when properly structured, contributes decisively to increasing the trust of investors and consumers.

Among the methodologies companies employ to disclose this non-financial information and to report on CSR, the most widely used are the GRI Standards (Malan, 2017). In these standards, there are three series numbered 200, 300, and 400, which correspond, respectively, to economic, environmental, and social topics. The latter specific series includes GRI 403 which addresses OHS (GRI, 2018).

Its most recent version, GRI 403: OHS 2018 emphasizes hazard identification, risk assessment, health, and the OHS management system. The effective date of implementation was set to January 1, 2021, but early adoption by companies was encouraged when the Standards were published (GRI, 2018).

OHS Management Systems

Given its relevance in GRI 403: OHS 2018, it is essential to contextualize the concept of OHS management systems. These are part of the overall management system of an organization and are composed of guidelines that do not replace national and international laws and regulations (Pinto, 2017). The benefits of the disclosure, adoption and certification in these systems are improved working conditions, ensuring compliance with legislation, and improved internal communication about risks and hazards (Santos, Barros, Mendes, & Lopes, 2013), as well as the benefits derived from documenting and disclosing working conditions to interested parties.

The *Occupational Health and Safety Assessment Series* (OHSAS) 18001:2007 is the international reference and was updated by the ISO 45001: 2018 standard to optimize OHS

management. Both have in common the cycle rationale known as plan, do, check, and act. The organizations certified by the former had a period of 3 years to implement ISO 45001, whose deadline was March 2021 (Pinto, 2019).

OHS CONTENT ANALYSIS IN SUSTAINABILITY REPORTS

The literature regarding CSR focuses on issues related to environmental impact, while studies related to social issues are scarce. The lack of attention to OHS is problematic, given its influence on workers' quality of life and organizational performance. Fifka (2013) highlights a positive correlation between performance and disclosures, where companies with better social and environmental performance reveal they pay greater attention to disclosures. Similarly, Searcy, Dixon, and Neumann (2016) stress that OHS disclosure can be reflected in greater involvement of organizations towards effective OHS practices.

Studies on the quantity of information disclosed

Koskela (2014) analyzed 15 sustainability reports from three Finnish companies in the aeronautical, energy, and financial sectors for the period from 2007 to 2011. The author found that OHS disclosures accounted for about 10% of the total information. Regarding OHS, safety was highlighted in about 44% of the content, whereas well-being was the least disclosed, occupying about 22%, while the rest related to occupational health.

Searcy et al. (2016) analyzed 100 sustainability reports between 2011 and 2013. They found there was greater focus on indicator disclosures addressing regulated issues, such as safety, and a disregard of non-regulated issues, such as psychosocial dimensions. The study highlights the need for the disclosure of indicators that encompass the entire scope of OHS.

Evangelinos et al. (2018) analyzed, at the international level, the OHS disclosures in the sustainability reports of 40 companies in 2015. The results indicate that companies fall short in reporting quantitative data beyond injury and absenteeism rates. The authors highlighted OHS training programs as an inadequately analyzed indicator in quantitative terms. They concluded that although companies identify OHS as a material issue, this is not reflected in the disclosures.

Ruiz-Frutos, Pinos-Mora, Ortega-Moreno, and Gómez-Salgado (2019) analyzed 112 companies in Ecuador from different sectors. The authors collected information through 671 questionnaires between 2014 and 2015, having verified that more than 90% of the companies have OHS management systems. Around 51% of the companies stated that they have an adequate OHS management system. The authors concluded that the evaluation of the social aspects they disclosed points to their overestimation when compared to the evidence from audits to the OHS management system.

Studies on the quality of the information disclosed

The term quality of the disclosures is associated with principles such as comparability, accuracy, reliability, and relevance (Fernandez-Feijoo, Romero, & Ruiz, 2014b). Brammer and Pavelin (2008) emphasized that the quality of the disclosures translates into the transformation of stakeholders' knowledge about business strategy.

O'Neill, Flanagan, and Clarke (2016) reviewed annual reports from Australia's top 50 listed companies. The results indicated that companies in hazardous industries have higher disclosure rates. Additionally, the study verified the presence of strategic efforts to reduce the visibility of failures and thus mitigate investors' perception of occupational safety risk. The authors concluded that not only are OHS disclosures critical in the communication of the company's performance to investors but also that the regulation of disclosures improves their quality.

Fernandez-Feijoo et al. (2014b) argued that the information disclosed on OHS lacks a standard system of comparison. Tsalis, Stylianou, and Nikolaou (2018), to ease such a problem, based on GRI indicators in the G4 version, developed a four-point scoring system to assess the quality of OHS disclosures. The same authors, in a sample of 134 sustainability reports, for the years 2015 and 2016, concluded that the quality of OHS disclosures is poor and show that the factors influencing quality are the industrial sector, the continent where the company operates, and the certification in the OHS management system. They also concluded that the quality of OHS disclosures in Europe is higher than in North America and Oceania.

RESEARCH HYPOTHESES AND METHODOLOGY

The regional factor can lead to differences that impact on the quality of the CSR disclosures. These differences are related to the institutional and stakeholder theory that highlights the existence of regional and specific parameters that influence sustainability reporting practices (Brammer & Pavelin, 2004).

H1: The quality of OHS disclosures differs according to the region of Europe where the companies are located.

It is argued that larger enterprises have greater underlying exposure to the general public, and are more likely to consider CSR activities to strengthen their image (Brammer & Pavelin, 2008; Branco & Rodrigues, 2008). These enterprises are also considered to be associated with more inclusive social and environmental impacts as well as more resources to invest in non-financial disclosures than in the case of smaller companies (Lopes & Rodrigues, 2007).

H2: Small and medium enterprises (SMEs) tend to have lower quality OHS disclosures than larger companies.

The literature suggests that the sector in which the enterprises operate may be associated with the quality of their disclosures, highlighting the continuous pressure certain sectors are under to meet the expectations of their stakeholders, given the impact of their activity on society (Tsalis et al., 2018). This is associated with a positive impact on the quantity and quality of sustainability reporting disclosures (O'Neill et al., 2016). Cahaya, Porter, Tower, and Brown (2017) define high and low-risk sectors in terms of OHS. The authors emphasize that companies belonging to high-risk sectors have a higher tendency to suffer from illness and occupational accidents among their workers.

H3: Companies belonging to high-risk sectors tend to present higher quality in their OHS disclosures than low-risk ones.

Multinational companies operate in several countries with different political and legislative regimes, face more regulation, experience greater complexity in their organizational structure, and are more dependent on approval from stakeholders. Consequently, multinationals tend to provide more detailed information to meet the diversity of their stakeholders (Newson & Deegan, 2002). Cahaya et al. (2017) show that the tendency to disclose OHS information is explained by the fact that the company is multinational.

H4: Multinational companies tend to present higher quality in their OHS disclosures than those that are not multinationals.

The literature sustains that companies listed on the stock market have higher levels of CSR disclosure (e.g., Eng & Mak, 2003; Lopes & Rodrigues, 2007; Meek, Roberts, & Gray, 1995).

H5: Listed companies tend to present higher quality in their OHS disclosures than those that are not listed.

Determinants such as CSR certifications are considered credible and have an impact on mechanisms in the quality of disclosures (Fernandez-Feijoo, Romero, & Ruiz, 2014a). Monteiro and Guzmán (2010) suggest that an environmental certification can have a positive impact on, at least, the quality of disclosures related to this factor, leading Tsalis et al. (2018) to argue that companies awarded the OHSAS 18001 management system certification will have better quality OHS disclosures.

H6: Companies that have a certified OHS management system tend to present higher quality OHS disclosures than those that do not have a certification.

Another determinant that may impact on the quality of the disclosures is external assurance obtained in the reports (Tsalis et al., 2018). Furthermore, Fernandez-Feijoo, Romero, and Ruiz (2012) and Fonseca (2010) suggest that external assurance may have effects related to higher quality disclosures, and Fernandez-Feijoo et al. (2014b) associate this factor with more transparent, credible reports.

H7: Companies with external assurance in sustainability reports tend to have higher quality OHS disclosures.

Empirical model

The following model was developed to analyze the hypotheses, in line with studies such as Tsalis et al. (2018), Cahaya et al. (2017), and Brammer and Pavelin (2004).

$$QI_i = \beta_0 + \beta_1 SME_I + \beta_2 SECTOR_I + \beta_3 MULTINATIONAL_i + \beta_4 QUOTATION_i + \beta_5 OHS_MANAGEMENT_SYSTEM_i + \beta_6 EXTERNAL_ASSURANCE_i + \beta_7 X_i + \beta_8 ROA_i + \varepsilon_i \quad (1)$$

where: QI_i represents the quality index of the OHS disclosures of company i; SME_i represents the small and medium size of company i; $MULTINATIONAL_i$ represents the multinational character of company i; $SECTOR_i$ represents the risk level of company i's sector; $QUOTATION_i$ represents that company i is a publicly listed company on the stock market; $OHS_MANAGEMENT_SYSTEM_i$ represents the certification of company i's OHS management system; $EXTERNAL_ASSURANCE_i$ represents the presence of external assurance in company i's reports; Return on Assets $(ROA)_i$ represents a control variable of company i's profitability; X_i represents a set of dummy variables for company i's region; ε_i is the term of random disturbance that is assumed to be independent and identically distributed.

The control variable ROA was collected from the Orbis database. Additional independent variables were collected from the official GRI database and from individual reports.

Dependent Variable

As presented in model (1), the dependent variable consists of an OHS quality index (QI) and is constructed using the quantitative content analysis method.

The analysis is based on the GRI 403: OHS 2018 standard. This standard list 10 indicators to be disclosed, presented in Exhibit 1, which will be used as a checklist for the QI.

Exhibit 1. GRI 403: OHS 2018

Management approach disclosures
403-1 Occupational health and safety management system
403-2 Hazard identification, risk assessment, and incident investigation
403-3 Occupational health services
403-4 Worker participation, consultation, and communication on occupational health and safety
403-5 Worker training on occupational health and safety
403-6 Promotion of worker health
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships
Topic-specific disclosures
403-8 Workers covered by an occupational health and safety management system
403-9 Work-related injuries
403-10 Work-related ill health

Source: (GRI, 2018).

In line with Tsalis et al. (2018), the quality of OHS information will be assessed through a four-point scoring system for each of the indicators. This procedure emphasizes the use of qualitative and quantitative data, as presented in Exhibit 2.

Exhibit 2. Four-point scoring system

Score	Quality of information	Description for the indicator under analysis
0	Non-existent	No relevant information mentioned
1	Low	Relevant qualitative information is mentioned
2	Fair	Relevant quantitative information is mentioned
3	Good	Relevant quantitative information is mentioned that could evaluate the progress of the indicator's performance

Source: (Tsalis et al., 2018, p. 318).

After identifying the scoring system and measuring the quality level of each category, the unweighted sum will be calculated, leading to the QI of the OHS disclosures.

$$QI = \sum_{i=1}^{10} GRI403_i \quad (2)$$

where: i is the number of OHS indicators disclosed. Thus, the total may be between 0 and 30.

Sample

The sample consists of companies present in the official GRI database at the time of its collection (February 2020), which met the following criteria: operate in Europe; the reports are for the year 2018; the OHS disclosures follow the most recent GRI 403: OHS 2018 standard. It was possible to filter the first two criteria and then proceed to the manual exclusion of all the companies whose disclosures followed previous versions of the GRI Standards regarding OHS. After these procedures, the final sample consisted of 101 companies from 19 EU countries.

Ramos and Patrício (2018) emphasize that OHS has attracted growing interest in Europe. In particular, the EU has implemented an OHS strategy encompassing analyses, trends, and implications on the national strategies of each Member State. Specifically, the geographical distribution of the sampled companies by region is detailed in Table 1, where 10% of the sample is in Central and Eastern Europe, 20% in Northern Europe, 39% in Southern Europe, and 32% in Western Europe. For each region, the countries are included as stipulated by EuroVoc.

Table 1. Countries of the sampled companies by regions of Europe

European Region	Country	Number of companies
Central and Eastern Europe	Croatia	2
	Czech Republic	1
	Hungary	3
	Poland	2
	Romania	2
Northern Europe	Denmark	3
	Finland	3
	Latvia	1
	Sweden	13
Southern Europe	Cyprus	1
	Spain	13
	Greece	4
	Italy	18
	Portugal	3
Western Europe	Austria	6
	Belgium y	5
	German	13
	France	3
	Netherlands	5

Source: Own elaboration.

Table 2 shows descriptive statistics of the sample variables.

Table 2. Descriptive statistics

Variable	Minimum	Maximum	Average	Standard Deviation
Dependent Variable				
Quality index (QI)	2.000	22.000	12.158	3.939
Continuous independent variable				
ROA (%)	-11.052	26.987	4.004	5.764
Dichotomous independent variable	Yes	No		
SECTOR	54%	46%		
OHS_MANAGEMENT _SYSTEM	57%	43%		
MULTINATIONAL	36%	64%		
QUOTATION	51%	49%		
SME	14%	86%		
EXTERNAL_ASSURANCE	56%	44%		

Source: Own elaboration.

RESULTS

Analysis of results regarding the quality of OHS disclosures

Table 3 presents the results from the OHS disclosures scoring, which will serve to answer the first research question.

Table 3. Score results for the type of information disclosed

Indicator	Mean	Reference to indicators (%)		Classification of the type of information disclosed (%)		
		Without reference (level 0)	With reference	Qualitative (level 1)	Quantitative (level 2)	Quantitative* (level 3)
403-1	1.069	20	80	56	20	4
403-2	0.961	20	80	64	15	1
403-3	0.980	26	74	52	19	3
403-4	1.098	19	81	51	30	0
403-5	1.470	9	91	44	38	10
403-6	1.284	11	89	52	33	4
403-7	0.745	31	69	64	4	1
403-8	0.814	51	49	17	30	2
403-9	2.500	9	91	2	17	72
403-10	1.118	53	47	4	19	24

Source: Own elaboration.

Except for the 403-8 and 403-10 indicators, each OHS indicator was referenced in most of the reports. Regarding 403-8, about 51% of the reports did not provide information on matters related to workers covered by the OHS management system. As for 403-10, the results indicated that 53% of companies avoided disclosing issues related to work-related ill health. We found that most of the companies reporting information on 403-1, 403-2, 403-3, 403-4, 403-6, and 403-7 disclosed this information mainly in a qualitative manner. It should also be noted that many companies who published quantitative information did not seem to do so in a way that may be comparable with other years.

Univariate analysis of the estimation results

First, to determine if the quality of the OHS disclosures is significantly different among the four regions of Europe, a one-way ANOVA test was conducted. At this stage, this analysis was intended to show that the variability observed in the QI could be exclusively explained by belonging to a specific region. The assumptions of normality and homogeneity of variances among the groups were verified through the Shapiro-Wilk and Levene tests.

Table 4. One-way ANOVA results

		F
Levene test for homogeneity of variances		0.699
ANOVA test of the effects between groups		2.800**
Multiple comparison (Tukey test)		Mean differences
Western Europe	Central and Eastern Europe	0.200
	Southern Europe	-2.436**
	Northern Europe	-1.200
Southern Europe	Central and Eastern Europe	2.636
	Northern Europe	1.236
Northern Europe	Central and Eastern Europe	1.400

* p-value ≤ 0.10, the coefficient is significant at 10% or less;
** p-value ≤ 0.05, the coefficient is significant at 5% or less;
*** p-value ≤ 0.01, the coefficient is significant at 1% or less.
Source: Own elaboration.

For a 5% significance level, the findings showed that at least one of the population means was different from the others, implying significant and relevant differences in the quality of OHS disclosures among the four regions of Europe shown in Table 1.

Tukey's analysis revealed that the average differences were statistically significant only between the Western and Southern European regions, indicating that Southern European companies reported OHS indicators with a quality that was 2.436 points higher than Western European companies.

Validation of the multiple linear regression model assumptions

To comply with the assumptions of multiple linear regressions, diagnostic tests were undertaken before the analysis of the model estimation results. From the variance inflation factor (VIF) values, its maximum of 2.608 appeared to be lower than the deciding value of 10. Therefore, there was no multicollinearity.

To verify whether the variance of the errors was constant, finite, and positive, the White test was performed. Since the chi-square test statistic (statistic: 36.409; p-value: 0.133) was not significant at a 5% level, this meant the disturbance terms were homoscedastic.

Lastly, the Jarque-Bera test was performed, whose results (statistics: 0.224; p-value: 0.894) allowed us to conclude that the assumption of normality was verified.

Analysis of estimation results of model (1)

In the estimation results, the individual significance of the variables was given by the probability value, which was the p-value.

Table 5. Estimation results of model (1)

Variable	Regression coefficient
C	8.302 (7.605)***
OHS_MANAGEMENT _SYSTEM	3.223 (4.391)***
SME	1.578 (1.353)
SECTOR	0.860 (1.210)
MULTINATIONAL	0.531 (0.682)
QUOTATION	-0.333 (-0.419)
EXTERNAL_ASSURANCE	1.267 (1.708)*
ROA	-0.125 (-1.985)**
CENTRAL_EASTERN	0.731 (0.557)
NORTHERN	2.278 (2.177)**
SOUTHERN	1.859 (2.096)**
R squared	0.310
Adjusted R squared	0.233
F statistic	4.035***
Number	101

The numbers in brackets are the associated t-statistics. *, **, *** = p-value < 0.10; 0.05 and 0.01.
Source: Own elaboration.

The value of the F statistic suggested that the independent variables, when taken together, explained the total quality of the OHS disclosures.

The estimation results of model (1) were analyzed under the assumption ceteris paribus for all interpretations and adopting as the reference the significance level of 5%.

The variable of certification of the OHS management system was confirmed to be relevant in explaining the quality of the disclosures. On average, certified companies in this field presented higher quality OHS disclosures, being 3 points higher in quality than non-certified companies.

The variable related to the presence of external assurance in the reports also contributed significantly to explaining the dependent variable regarding the quality of OHS disclosures. This meant that, on average, companies with external assurance in their reports presented higher quality OHS disclosures, approximately 1.5 points higher than those without external assurance.

The Northern European region variable was significant in explaining the quality of OHS disclosures, whose reports were on average 2.268 points higher in quality than Western European companies. The variable representative of the South European region was also significant, presenting OHS disclosures in this region that were 1.859 points higher in quality than Western European companies.

The variables SMEs, sector, multinational, quotation, and Central and Eastern European regions were not significant.

DISCUSSION

Quality level - Research question 1

Consistent with the literature, a greater emphasis on safety in the companies' disclosures such as indicator 403-9 was confirmed. According to Evangelinos et al. (2018) and Searcy et al. (2016), this may be justified because safety is a matter of stricter regulation. The results confirm that companies continue to show a lack of inclination to disclose quantitative data beyond safety indicators.

The lower quality and general disregard for the 403-10 indicator in comparison to the others is in line with Rushton (2017) and Searcy et al. (2016). These authors showed that non-regulated issues are underrepresented, such as occupational health and diseases. This result could reveal a more conspicuous difficulty in reporting occupational diseases than occupational accidents (Rushton, 2017).

As for 403-2 on hazard identification, risk assessment, and incident investigation, its lower quality could be interpreted in accordance with EU-OSHA (2019b), which has stated that about 80% of European companies have not carried out risk assessments because they believe they are well-known or because they assume there are no risks. According to the same source, such results may indicate a severe absence of awareness about the dangers of work, causing the lower quality of the disclosures regarding the 403-2 indicator.

In general, we found that the quality level of OHS disclosures per company was, on average, about 12 points out of 30.

Factors influencing the quality level - Research question 2

The following table presents the expected signs compared to those obtained and will be subsequently discussed.

Table 6. Expected vs. obtained signals

Variable	Expected signal	Obtained signal	Hypothesis confirmation
REGION	+	+	H1 confirmed
OHS_MANAGEMENT _SYSTEM	+	+	H2 confirmed
SME	-	+	H3 infirmed
SECTOR	+	+	H4 infirmed
MULTINATIONAL	+	+	H5 infirmed
QUOTATION	+	-	H6 infirmed
EXTERNAL_ASSURANCE	+	+	H7 confirmed
ROA	+/-	-	–

Source: Own elaboration.

By confirming Hypothesis 1, we concluded that there were relevant differences in the quality of OHS disclosures among the four European regions. The results in the univariate analysis suggested firms in Southern Europe presented higher quality OHS disclosures than firms in Western Europe. The estimation results supported the same outcome adding evidence of a positive impact in the Northern European region. Despite the lack of empirical evidence, this divergence among the regions regarding the quality of disclosures may be explained by findings from EU-OSHA (2019a) most recent survey of European enterprises and its European Survey of Enterprises on New and Emerging Risks (ESENER) database. This survey showed that the least supervised countries by the labor agency are in Western Europe, while the most controlled ones are located in Northern Europe. They also revealed that Western European companies considered legal obligations more complex and reported a higher lack of awareness among management and employees than the other three regions.

Hypothesis 2 was confirmed, supporting evidence consistent with Tsalis et al. (2018) that certification of an OHS management system contributes significantly to improving the quality of the information disclosed. This result contributes to theoretical robustness, strengthening the importance of having a certified OHS management system, whether OHSAS 18001 or ISO 45001.

In Hypothesis 3, the results of the simplified model and the signal obtained were contrary to the literature. These values may be conditioned by the small number of SMEs in the sample. According to Fernandez-Feijoo et al. (2014a), the effect of firm size on the quality of disclosures lacked theoretical support, given the scarcity of evaluations in this context. The signal value may indicate that the EU support provided to SMEs, such as those referred to by European Commission (2017b), have achieved results, allowing these companies to increase communication on OHS with stakeholders.

Hypothesis 4 was not confirmed and, contrary to what we expected, the company's sector risk concerning OHS did not seem to impact the quality of its disclosures. The signal found corroborated the literature, confirming that firms in a high-risk sector pay more attention to OHS disclosures (Cahaya et al., 2017; Roca & Searcy, 2012).

Hypothesis 5 confirmed that being a multinational company did not affect the quality of its OHS disclosures. Although contrary to the literature, this result is in line with Tsalis et al. (2018) and of Skouloudis, Jones, Malesios, and, Evangelinos (2014).

As for Hypothesis 6, the signal obtained showed a negative relationship, contradicting the literature. For Fernandez-Feijoo et al. (2014a), listed companies disclosed more CSR information but with less credibility. The authors argued that, as the main stakeholders of unlisted companies were not investors, there was a greater focus on the community and workers.

In Hypothesis 7, external assurance in reports proved to be significant. The positive relationship obtained corroborates the literature (Fernandez-Feijoo et al., 2012, 2014b; Fonseca, 2010). However, Tsalis et al. (2018) did not obtain significance in this factor. This result reinforces that having external assurance is a quality-enhancing factor, thus becoming an added value in the decision-making process of these companies.

The significance of the control variable of return on assets in explaining the quality of OHS disclosures is an additional contribution from this study. As in Branco and Rodrigues (2008), this variable was tested without any assumption as to the expected sign. Although the negative relationship between asset profitability and the OHS quality index is not a common conclusion, it corroborates O'Neill et al. (2016).

CONCLUSION

Occupational health and safety is a human rights concern with unsurpassed relevance in society and business. However, the issue has been widely disregarded (Malan, 2017), even though it has the potential to make companies more productive and sustainable.

This study contributes to the gaps in the OHS literature and the discussion on the business-society interface by linking OHS to social responsibility, human resources, economics, and management through a literature review and econometric applications. Several authors and international bodies have called for further research in this field and emphasize the need to provide reliable and comparable information. The European Parliament highlights the importance of companies disclosing non-financial social information that enables monitoring and performance management to measure the impact of business on society. This article also discusses current data on the quality of non-financial OHS disclosures by EU companies, identifying the determinants that affect these disclosures, which European regions are of lower quality, and which need more attention.

The results from the level of quality of OHS disclosures highlighted that there is still much room for improvement on the part of enterprises, as most of them refer to the information qualitatively and do not disclose work-related ill health (indicator 403-10). At the indicator level, the lowest quality indicator concerns prevention measures and the mitigation of negative OHS impacts (indicator 403-7), while the highest quality indicator concerns work-related injuries (indicator 403-9). These results suggest the need for more international attention on the development of materials and guidelines to help companies provide quality information that illustrates a complete picture of OHS performance to stakeholders.

The results confirm that the quality of OHS is positively influenced by factors such as the presence of an OHS management system, external assurance in sustainability reporting, and

the European region. The results add evidence to the literature that OHS disclosures are of higher quality in Northern Europe, followed by Southern Europe with almost the same level of quality. These findings indicate less attention to OHS issues in the Western European and Central and Eastern European regions, showing the need for greater focus from regulators and employers in those regions.

Management, including human resources management (HRM), may find these results helpful in making strategic decisions and providing clear signals of their commitment to OHS. These results are crucial, as quality disclosure provides knowledge to stakeholders who tend to put social and regulatory pressure on enterprises, creating a cycle of good practices with a positive impact on OHS.

The interpretation of the results is subject to some limitations. Only reports registered in the GRI database have been selected. Additionally, the analysis focuses on the latest GRI OHS standards, which limits the sample to only those companies that have applied the standards in advance.

This study is pioneering in the analysis of the level of quality of OHS disclosures and the factors influencing such quality in the European context. It is also innovative in the Portuguese case, providing an extensive literature review of the economic and CSR strands of OHS.

Future research could employ a similar methodology for the previous years and the period preceding the migration to the effective application of the GRI 403: OHS 2018 standard. An important contribution would be not only to expand the sample but also conduct analyses across different countries and continents. This quantitative analysis could be complemented with a qualitative one that investigates the possible factors causing the differences among regions or across sectors. In the same line, research on the degree of effective knowledge and awareness of managers and workers of the relevance of OHS would be a complementary contribution to map the main difficulties of companies in implementing and disseminating OHS.

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FROM GREEN TRAINING AND INVOLVEMENT TO AN ORGANIZATIONAL RATIONALE FOR SUSTAINABILITY: DOES IT IMPROVE INDIVIDUAL GREEN PERFORMANCE?

Do treinamento e envolvimento verde à lógica organizacional para a sustentabilidade: Melhora-se o desempenho verde individual?

De la capacitación y el compromiso verdes a la lógica organizacional para la sustentabilidad: ¿Mejora el desempeño verde individual?

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ABSTRACT

Organizations are pressured by their stakeholders to promote sustainable actions, so they need to adopt strategies that encourage their employees to engage in green behaviors. Our aim was to analyze the effects of green training and involvement on individual green performance, with the intervention of the interactive and diagnostic use of Performance Measurement Systems (PMS), organizational rationale for sustainability, and organizational identification. A survey was conducted with employees of a private electric power generator operating in Brazil, and 101 valid responses were obtained. The analysis used mixed methods: partial least squares structural equation modeling and fuzzy-set qualitative comparative analysis. The findings suggest the influence of green training and involvement on the interactive and diagnostic use of PMS, and on the organizational rationale for sustainability, which influences individual green performance moderated by organizational identification. Furthermore, two (four) combinations of the conditions promote high (low) individual green performance.

Keywords: green training and involvement, performance measurement systems, organizational rationale for sustainability, organizational identification, individual green performance.

RESUMO

As organizações são pressionadas pelos stakeholders a promoverem ações sustentáveis, de modo que precisam adotar estratégias que incentivem seus funcionários a apresentarem comportamentos verdes. Assim, objetiva-se analisar os efeitos do treinamento e envolvimento verde no desempenho individual verde, com a interveniência do uso interativo e diagnóstico dos sistemas de mensuração de desempenho (PMS), lógica organizacional para a sustentabilidade e identificação organizacional. Uma survey foi realizada com funcionários de uma geradora privada de energia elétrica, atuante no Brasil, e se obtiveram 101 respostas válidas. Nas análises, utilizaram-se métodos mistos: modelagem de equações estruturais por mínimos quadrados parciais e análise qualitativa comparativa fuzzy-set. Os achados sugerem influência do treinamento e envolvimento verde no uso interativo e diagnóstico do PMS, e desses elementos na lógica organizacional para a sustentabilidade, a qual influencia o desempenho individual verde moderada pela identificação organizacional. Ademais, duas (quatro) combinações entre as condições promovem alto (baixo) desempenho verde individual.

Palavras-chave: *treinamento e envolvimento verde, sistemas de mensuração de desempenho, lógica organizacional para a sustentabilidade, identificação organizacional, desempenho verde individual.*

RESUMEN

Las organizaciones son presionadas por los stakeholders a promover acciones sostenibles, por lo que necesitan adoptar estrategias que alienten a sus empleados a exhibir un comportamiento ecológico. Así, el objetivo es analizar los efectos de la capacitación y el compromiso verdes en el desempeño verde individual, con la intervención del uso interactivo y diagnóstico de sistemas de medición de desempeño (PMS), lógica organizacional para la sustentabilidad e identificación organizacional. Se realizó una encuesta a empleados de una generadora privada de energía eléctrica, que opera en Brasil, y se obtuvieron 101 respuestas válidas. En los análisis se utilizaron métodos mixtos: modelado de ecuaciones estructurales por mínimos cuadrados parciales y análisis cualitativo comparativo fuzzy-set. Los hallazgos sugieren la influencia de la capacitación y el compromiso verdes en el uso interactivo y el diagnóstico de PMS, y de estos elementos en la lógica organizacional para la sostenibilidad, que influye en el desempeño individual verde moderado por la identificación organizacional. Además, dos (cuatro) combinaciones de condiciones promueven un alto (bajo) desempeño verde individual.

Palabras clave: *capacitación y compromiso verdes, sistemas de medición del desempeño, lógica organizacional para la sustentabilidad, identificación organizacional, desempeño verde individual.*

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INTRODUCTION

Organizations receive pressure from various stakeholders to promote sustainable strategies and behaviors (Guerci, Longoni, & Luzzini, 2016; Seroka-Stolka & Fijorek, 2020). Green Human Resource Management (HRM) practices are important for enabling organizations to foster more sustainable strategies via their employees (Renwick, Redman, & Maguire, 2013), one of the main practices of which is green training and involvement (Guerci et al., 2016). Green HRM practices have the potential to lead the organizational rationale for sustainability (Jerónimo, Henriques, Lacerda, Silva, & Vieira, 2020; Jerónimo, Lacerda, & Henriques, 2020), which involves the employees' perceptions of the organization's sustainable values (Tosti-Kharas, Lamm, & Thomas, 2017).

Possible intervening factors play a role in the relationship between green HRM practices and the organizational rationale for sustainability, an aspect that is still little explored in the literature. Performance Measurement Systems (PMS), which comprise the measures used to quantify certain actions in the organization (Neely, Gregory, & Platts, 1995), can drive green training and involvement. Managers interactively use PMS (encouraging dialogue and learning, and providing a common view of the organization) and in a diagnostic way (monitoring, correcting, and tracking goals) (Henri, 2006; Simons, 1995). The facilitatory role of the interactive and diagnostic use of the PMS, therefore, is considered in the dissemination of green training and involvement, thereby promotes an organizational rationale for sustainability.

When employees perceive the organizational rationale for sustainability, they begin to exhibit more sustainable behaviors and actions (Tosti-Kharas et al., 2017). Furthermore, employee organizational identification, which is the individual's perception of belonging to the organization of which he/she is a member (Mael & Ashforth, 1992), can amplify the contributions of the organizational rationale for sustainability in individual green performance. Despite the existing research on the topic, there are further opportunities for study. For example, Jerónimo, Henriques et al. (2020) and Jerónimo, Lacerda et al. (2020) suggest research that explores the impact of green HRM practices on employees by contrasting these points with other company strategies. Thus, comparing the interactive and diagnostic uses of PMS may offer insights into the literature.

This study aims to analyze the effects of green training and involvement on individual green performance with the intervention of the interactive and diagnostic use of PMS, the organizational rationale for sustainability, and organizational identification. A survey was conducted with employees of a large private power generator listed on the Brazilian Corporate Sustainability Index (ISE), Bolsa e Balcão (B3), and Clean200. We used mixed methods in our analyses: partial least squares structural equation modeling (PLS-SEM) and fuzzy-set qualitative comparative analysis (fsQCA).

The results suggest that green training and involvement are positively related to the interactive and diagnostic use of the PMS and the organizational rationale for sustainability. The interactive and diagnostic use of PMS is positively related to the organizational rationale for sustainability, which, in turn, has a positive effect on individual green performance. The diagnostic use of PMS assumes a mediating role between green training and involvement

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and the organizational rationale for sustainability. Furthermore, organizational identification moderates the relationship between organizational rationale for sustainability and individual green performance. Two (four) combinations of conditions lead individuals to high (low) individual green performance. The empirical results indicate that sustainable strategies must be disseminated and incorporated by employees for them to be able to exhibit green behaviors that are consistent with the organizational strategy (Chaudhary, 2020).

The findings make both theoretical and managerial contributions. The literature on green HRM practices receives new evidence, particularly for the practice of green training and involvement. The use of PMS is discussed, as is organizational identification as an important factor for individuals to behave sustainably. They contribute to managerial practice, since by knowing the pathways that lead to the green performance of individual employees, managers can direct their efforts to facilitate achieving them. The role of these leaders is critical to this perception by employees (Jeronimo, Henriques et al., 2020) so they understand that sustainable performance is a priority in the organization (Glavas & Godwin, 2013; Jerónimo, Henriques et al., 2020; Tosti-Kharas et al., 2017).

Following this Introduction, this paper is organized into a Literature review, with the Hypotheses section presenting the theoretical insights for developing the hypotheses. The Method section explains the methodological procedures. The Data Analysis section describes and discusses the data and the results, and the Conclusions section highlights the findings, theoretical and managerial implications, and the paper's limitations and recommendations.

LITERATURE REVIEW AND HYPOTHESES

Green training and involvement and the organizational rationale for sustainability

Among green HRM practices, one of those receiving a lot of emphasis is green training and involvement (Guerci et al., 2016). This assigns to the organization the role of sharing information about the organization's mission and vision (Mandip, 2012) to foster the development of the sustainable competencies that are expected of employees (Mousa & Othman, 2020). Green training and involvement programs provide links with managing external pressures and higher levels of environmental performance (Guerci et al., 2016), which are reflected in employee satisfaction and their engaging in sustainable behaviors (Amrutha & Geetha, 2021). Green training is essential for the successful sustainable management of organizations (Pinzone, Guerci, Lettieri, & Huisingh, 2019), thereby fostering the organizational rationale for sustainability (Jerónimo, Henriques et al., 2020).

The organizational rationale for sustainability considers the priority of maintaining environmentally sustainable operations, which implies employees having a perception of sustainable behaviors in the organization (Tosti-Kharas et al., 2017). This rationale is conveyed to employees by green training and involvement, or resulting actions, such as internal reporting,

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events, newsletters, and training in order to project a more positive and sustainable image of the organization (Glavas & Godwin, 2013). Evidence points to the fact that green HRM practices, such as green training, influence employees' perceptions of the organizational rationale for sustainability, and that green training is a necessary and sufficient condition for a large part of how employees perceive an organization's rationale for sustainability (Jeronimo, Henriques et al., 2020). Thus, it is assumed that:

> H1: Green training and involvement are positively related to an organizational rationale for sustainability.

The mediating role of PMS use

PMS are one of the Management Control Systems (MCS) that comprise the measures used by organizations to quantify certain actions (Neely et al., 1995). These measures may contain financial and/or non-financial, internal and/or external, short and/or long-term, and ex-post and/or ex-ante information (Henri, 2006). PMS are formalized information-based procedures and systems to ensure or modify patterns of behavior in organizational activities (Simons, 1987). MCS are generally used in a dynamic tension rationale: the diagnostic use of PMS performs the function of feedback, actions for monitoring, rewarding and ensuring goal achievement, while the interactive use of PMS encourages organizational dialogue and learning (Henri, 2006; Simons, 1995).

This study posits that the (interactive and diagnostic) use of the PMS ensures that green training and involvement result in an organizational rationale for sustainability that is perceived by the employees. First, green HRM practices have a positive influence on several forms of performance measurement (Acquah, Agyabeng-Mensah, & Afum, 2020). However, developing, quantifying, and particularly divulging HRM measures and goals to organizational stakeholders is an ongoing challenge (Herington, McPhail, & Guilding, 2013), which demands the use of PMS aimed at providing timely information of the organization's HRM goals and activities and their performance (Huselid, 1995). Consequently, green training and involvement may need the diagnostic and interactive use of PMS to be translated into the organizational rationale for sustainability. It is assumed that PMS feedback in it role of supporting strategy implementation (diagnostic use), dialogue, the signals emitted for focusing organizational attention, and the emergence of new strategies (interactive use) (Henri, 2006; Simons, 1995) can assist the organization in implementing, tracking, and realigning the development of environmental skills and competencies, while engaging employees in proactive green behaviors (green training and involvement) (Guerci et al., 2016; Jerónimo, Henriques et al., 2020).

PMS play an active role in the sustainable development of organizations by divulging their core values (Jollands, Akroyd, & Sawabe, 2015). Companies use MCS to pass on their beliefs and values, thereby directing and guiding individuals to the desired behavior (Simons, 1995)

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through the interactive and diagnostic use of PMS (Henri, 2006). PMS allow an organization to track and direct its goals for green behaviors in the organization (Lisi, 2015). MCS are used to track and control actions and results (diagnostic use), or to encourage learning, creativity, and discussion (interactive use) among employees (Henri, 2006; Simons, 1995). This reflects positively on sustainable outputs (Heggen & Sridharan, 2021), and helps employees achieve the organizational rationale for sustainability.

The perceived organizational rationale for sustainability aligns the interests of employees with regard to their green attitudes (Starik & Rands, 1995). Consequently, organizations need this idea to be widely accepted and disseminated by their employees (Jeronimo, Henriques et al., 2020; Jeronimo, Lacerda et al., 2020). Individuals' perceptions of organizational sustainability are developed through strategies (e.g., mission, standards, and practices) and/or are based on organizational culture (e.g., beliefs and values) (Glavas & Godwin, 2013; Jeronimo, Lacerda et al., 2020) They are usually proposed and developed through green training and involvement (Guerci *et al*., 2016) and possibly disseminated by the interactive and diagnostic use of PMS (Henri, 2006; Lisi, 2015). Thus, it is assumed that:

> H2: The interactive use of PMS plays a mediating role in the relationship between green training and involvement and the organizational rationale for sustainability.

> H3: The diagnostic use of PMS plays a mediating role in the relationship between green training and involvement and the organizational rationale for sustainability.

The organizational rationale for sustainability and individual green performance

In addition to the vision and mission stating that sustainability as a strategic goal of the organization, energetic and discretionary actions may be required to achieve this purpose, such as creating a sustainability committee, developing recycling and loss management policies, or digitizing and automating processes (Boiral & Paillé, 2012). How employees perceive the organization's sustainable principles influences their behaviors (Schneider, Ehrhart, & Macey, 2012; Tuan, 2021). Therefore, the organizational rationale for sustainability needs to be seen to influence employees' sustainable actions (Tosti-Kharas et al., 2017). Employees who perceive organizational behavior for sustainability are more likely to adopt green behaviors in the workplace (Paillé & Raineri, 2015).

One of the effects of the organizational rationale for the employees' perception of sustainability is the organization's environmental citizenship behavior (Tosti-Kharas et al., 2017). Because of this, individual green performance is critical for effective sustainable behavior in the organization (Boiral & Pallé, 2012). Employees who engage in green behaviors generate knowledge about sustainability and multiply this knowledge within the organization (Tuan, 2021). As a

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consequence, there are three aspects of individual green performance: it is voluntary: the organization does not pay for it (eco-initiatives); it is collaborative, with support from colleagues or knowledge exchange actions, which is also considered to be voluntary (eco-help); and it is encouraged through loyalty and commitment to the organization (eco-civic) (Boiral & Pallé, 2012). Considering the benefits of the perceived organizational rationale for sustainability on employees' sustainable behaviors (Tosti-Kharas et al., 2017), it is assumed that:

> H4: The organizational rationale for sustainability is positively related to the individual's green performance.

The moderating role of organizational identification

Organizational identification consists of the individual's perception of belonging in the organization in which he/she works (Mael & Ashforth, 1992). Greater feelings of identification result in employees having a greater propensity to share values, beliefs, organizational goals (Ashforth, Harrison, & Corley, 2008), and their interest in the success of the organization (Ashforth & Mael, 1989). Evidence indicates that a perceived organizational rationale for sustainability and identification with the organization result in employees engaging fully with their work, and reflecting positively on their individual performance (Jeronimo, Lacerda et al., 2020). Generally, employees who perceive this rationale also report higher levels of organizational identification (Lamm, Tosti-Kharas, & King, 2015), which may be beneficial to the green performance of individuals in the organization.

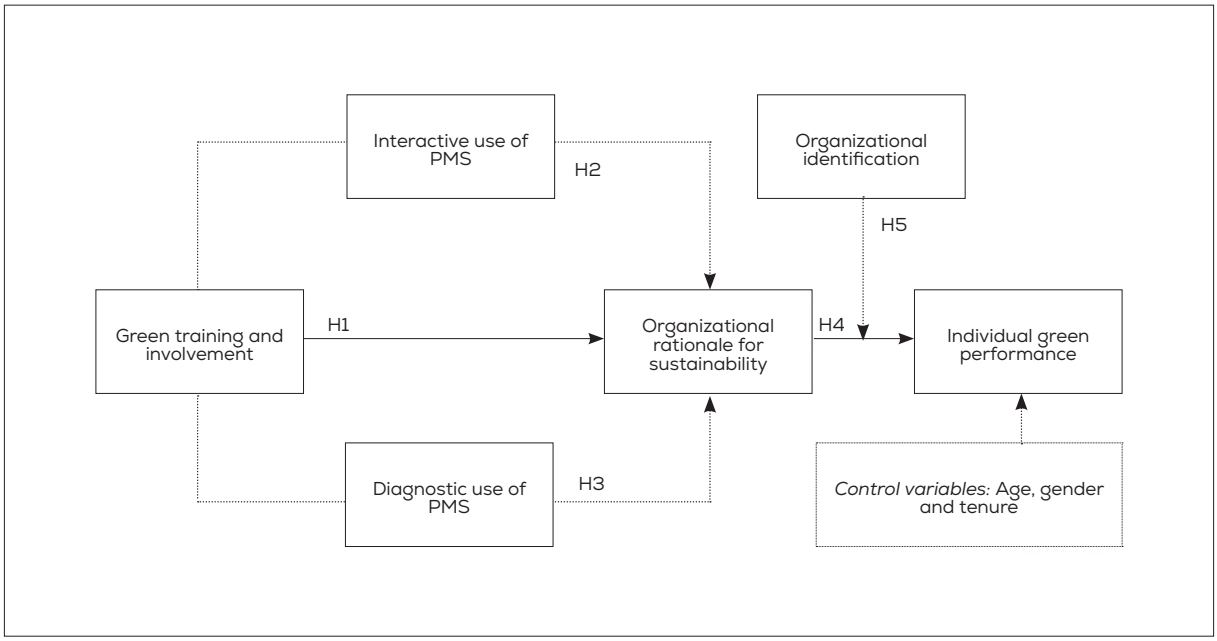
Although Tosti-Kharas et al. (2017) did not support the hypothesized moderating effect of organizational identification between the organizational rationale for sustainability and organizational citizenship behaviors toward the environment for a sample of employees from diverse organizations and occupations, the authors suggest that further research should consider the potential moderating effect of organizational identification between perceptions of the organizational rationale for sustainability and discretionary pro-environmental behaviors at work. It is presumed that when employees strongly identify with the organization, then they are more likely to grasp the organization's rationale and its strategies and act in alignment with them (Lamm et al., 2015). Therefore, when considering employees who work in an organization that, by its nature, should promote and enact green behaviors in the work environment (Süßbauer & Schäfer, 2018), it is proposed that:

> H5: Organizational identification positively moderates the relationship between the organizational rationale for sustainability and individual green performance.

Figure 1 presents the conceptual model of the research.

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Figure 1. Conceptual model



METHOD

Context and participants

The survey data come from employees of a private power generator operating in Brazil, which has 373 employees (analysts, coordinators, and managers) at its headquarters. This organization produces at least 86% of its energy from renewable sources and has been listed on the B3 ISE since its inception in 2005 and on Clean200, a global ranking of publicly-traded companies that lead in solutions for a clean energy future. The literature suggests that organizations should focus on ways of encouraging sustainable behaviors, especially green behaviors, in their employees in the work environment (Süßbauer & Schäfer, 2018); this is an integral part of this organization's internal policy.

After explaining the purposes of the research and formally consulting the organization's Human Resource and Culture Management area, authorization was given for the survey to be carried out. Using a list with the names and email addresses of the employees, the presentation letter and link to access the questionnaire were sent out. Data were collected between January and February 2021, resulting in 101 respondents (final sample). Exploratory analyses revealed there to be no outliers or missing data. The sample profile indicates that most employees are over 35 years old (56.44%), the average being 39, most are men (55.45%), and most have worked in the company for more than five years (59.41%), the average being 10 years. Most of them (71.29%) have a graduate degree, and 57.43% have a degree in Applied Social Sciences.

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Measures

The constructs and items were extracted/adapted from the literature. For all items, a 7-point scale was used, with different labels. Green training and involvement were measured by way of four items (Guerci et al., 2016). Respondents were asked to indicate their perceptions with regard to the extent of the organization's implementation of green training and involvement (1=not implemented to 7=fully implemented). Examples of items are "environmental training for employees" and "employee involvement in environmental issues". Since 2007, training in the organization has focused on social and environmental care and has been carried out in all company activities.

Items for the interactive (7) and diagnostic (4) use of PMS are based on Henri (2006), and respondents assessed the extent to which the company's management uses performance measures (1=not at all to 7=to a great extent). Items for interactive use are "enable discussion in meetings of superiors, sub-ordinates and peers" and "develop a common vocabulary in the organization." For diagnostic use, they are "track progress toward goals" and "compare outcomes with expectations". Since 2015, formalized PMS have been used by management in the organization, and are related, for example, to the digitization process and a continuous improvement in sustainability.

The organizational rationale for sustainability considers four items (Tosti-Kharas et al., 2017). Although the original formulation contains eco-centric (moral reasons) and organization-centric (business reason) rationale as in previous studies (Jerónimo, Henriques et al., 2020; Jerónimo, Lacerda et al., 2020), we only considered the latter. Respondents stated their degree of agreement with the perceived organizational rationale for sustainability on a Likert-type scale (1=strongly disagree to 7=strongly agree). Examples of items are "my organization believes that good environmental practices can save it money" and "my organization believes that a good reputation for responsible environmental practices helps attract and retain good employees".

Organizational identification comprises six items (Mael & Ashforth, 1992). The only adaptation was exchanging the term "school" for "organization". Respondents indicated the degree to which they agreed with how they felt about their company on a Likert-type scale (1=strongly disagree to 7=strongly agree). Examples of items are "I am very interested in what others think about my organization" and "when someone praises this organization, it feels like a personal compliment".

Individual green performance is a second-order construct (Boiral & Paillé, 2012), composed of three first-order constructs (eco-helping, eco-civic engagement, and eco-initiatives), with three, four, and three items, respectively. As in Tuan (2021), the construct is defined by individual green performance and is based on Boiral and Paillé's (2012) organizational citizenship behavior scale for the environment. Respondents marked their degree of agreement regarding individual green performance on a Likert-type scale (1=strongly disagree to 7=strongly agree). Examples of items are: (eco-helping) "I encourage my colleagues to adopt more environmentally conscious behavior," (eco-civic engagement) "I actively participate in environmental events organized in

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and/or by my organization," and (eco-initiatives) "In my work, I weigh the consequences of my actions before doing something that could affect the environment".

As in previous literature (Marescaux, Winne, & Forrier, 2019; Jeronimo, Henriques et al., 2020), three binary control variables were entered into the model: age (0=up to 35 years and 1=over 35 years), gender (0=male and 1=female), and tenure (0=up to 5 years and 1=more than 5 years).

Common method bias and non-response bias

The study applied measures to minimize common method bias. For example, a guarantee of anonymity, diversification in the scores (labels) of the multipoint scales, and, after data collection, the application of Harman's single factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). A total of seven factors with an eigenvalue greater than 1 emerged in the exploratory factor analysis and correspond to 73.89% of the total variance. The first factor accounts for less than 50% (35.59%) of the total variance.

To access potential non-response bias, late respondents were considered analogous to non-participants in the survey (Armstrong & Overton, 1977). A mean comparison test of the item responses for the first 10 and last 10 respondents indicates no significant difference (lowest *p*-value=0.112). Based on the care and testing performed, these biases are not problems in this research.

Mixed-methods approach

The study employs mixed methods in the analyses, a quantitative and a qualitative technique. It applies PLS-SEM and fsQCA, given the complementarity power of the results (Frare & Beuren, 2020; Crespo, Curado, Oliveira, & Muñoz-Pascual, 2021), including in contexts of human resource management (Curado, 2018) and sustainability (Muñoz-Pascual, Curado, & Galende, 2019). In studies on sustainable perspectives, considering fsQCA as a complement to PLS-SEM seems appropriate (Muñoz-Pascual, Galende, & Curado, 2021), as it strengthens the complementary explanatory design and aids the holistic understanding of the phenomenon (Johnson & Onwuegbuzie, 2004).

The PLS-SEM technique (in SmartPLS 3.0 software) allows for quantitative and symmetric analysis, complex modeling, and robustness in the absence of data normality (Hair, Risher, Sarstedt, & Ringle, 2019). The fsQCA technique (in fsQCA 3.0 software) allows qualitative analysis to identify asymmetric relationships and necessary and/or sufficient conditions for a given outcome (Ragin, 2008). It also provides an analysis of configurations between conditions that lead to the success or failure of the outcome (Fiss, 2011).

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DATA ANALYSIS

PLS-SEM

Measurement model

Individual green performance (second-order) is composed of three first-order constructs. For this, a reflexive-reflexive (Type I) structure was employed, with a repeated indicators approach. The remaining constructs are single-order and follow a reflexive approach (Hair et al., 2019).

The loadings of the indicators were analyzed by confirmatory factor analysis, and, after excluding two items (one from the organizational rationale for sustainability and another from organizational identification) to adjust the model, values were shown to be adequate (≥0.708) (Hair et al., 2019). Internal consistency was attested by Cronbach's alpha, rho_A, and composite reliability (CR) with acceptable values (>0.70) (Hair et al., 2019). Convergent validity is shown to be adequate, as the average variance extracted (AVE) is higher than the threshold (0.50) (Hair et al., 2019). More information is provided in Table 1.

Table 1. Reliability and Convergent Validity

	Loadings	Cronbach's Alpha	rho_A	CR	AVE
1.GTI	[0.833; 0.875]	0.877	0.888	0.915	0.729
2.iPMS	[0.754; 0.895]	0.924	0.925	0.939	0.687
3.dPMS	[0.901; 0.963]	0.951	0.953	0.965	0.873
4.ORS	[0.830; 0.865]	0.805	0.805	0.885	0.720
5.OI	[0.715; 0.823]	0.828	0.845	0.876	0.587
6.IGP	[0.818; 0.947]	0.940	0.944	0.937	0.833

Discriminant validity (Table 2) is evidenced by two criteria. In the first (Fornell-Larcker), the square root of the AVE is higher than the correlations between the constructs (Hair, Hult, Ringle, & Sarstedt, 2017). The second, heterotrait-monotrait ratio of correlations (HTMT) has values less than 0.85 (Hair et al., 2019).

Table 2. Discriminant validity

	1	2	3	4	5	6	7	8	9
1.GTI	**0.854**	0.550	0.465	0.505	0.336	0.678	0.230	0.144	0.177
2.iPMS	0.503	**0.829**	0.646	0.558	0.444	0.405	0.061	0.076	0.173
3.dPMS	0.437	0.608	**0.934**	0.665	0.402	0.280	0.049	0.017	0.128
4.ORS	0.427	0.483	0.583	**0.848**	0.485	0.356	0.072	0.143	0.098
5.OI	0.301	0.396	0.353	0.379	**0.766**	0.345	0.085	0.097	0.073
6.IGP	0.618	0.388	0.269	0.309	0.330	**0.912**	0.215	0.095	0.201
7.Age	0.210	0.049	0.048	0.065	0.067	0.212	-	0.026	0.372
8.Gender	-0.136	0.035	0.002	0.028	0.069	0.084	-0.026	-	0.121
9.Tenure	0.159	0.166	0.124	-0.005	-0.057	0.194	0.372	-0.121	-

Note: Bold diagonal values indicate the square root of the AVE, the lower diagonal values indicate the correlations for accessing the Fornell-Larcker criterion, and the upper diagonal values indicate the HTMT.

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From analysis of the loadings, internal consistency, and convergent and discriminant validity, the measurement model is adequate (Hair et al., 2019).

Structural Model

The significance of the structural relationships was checked by bootstrapping, with 5,000 resamples (Table 3).

Table 3. Structural model

Type of relationship	H	Relationship	*Beta* (β)	Valor-*p*
Main effects	H1	GTI→ORS	0.172	0.055*
	-	GTI→iPMS	0.503	0.000***
	-	iPMS→ORS	0.139	0.097*
	H2	GTI→iPMS→ORS	0.070	0.122
	-	GTI→dPMS	0.437	0.000***
	-	dPMS→ORS	0.424	0.001***
	H3	GTI→dPMS→ORS	0.185	0.007***
	H4	ORS→IGP	0.279	0.008***
	-	OI→IGP	0.298	0.002***
	H5	ORS*OI→IGP	0.299	0.003***
Control variables	-	Age→IGP	0.142	0.109
	-	Gender→IGP	0.077	0.377
	-	Tenure→IGP	0.149	0.083*
Other specific indirect effects	-	GTI→ORS→IGP	0.048	0.141
	-	iPMS→ORS→IGP	0.039	0.141
	-	dPMS→ORS→IGP	0.118	0.014**
	-	GTI→iPMS→ORS→IGP	0.019	0.171
	-	GTI→dPMS→ORS→IGP	0.052	0.040**

Note: *p<0.10; **p<0.05; ***p<0.01, one-tailed test when the sign of the relationship is predicted, and two-tailed otherwise (control variables).

There is no evidence of multicollinearity, as the variance inflation factor between constructs is less than 3 (largest value=1.782) (Hair et al., 2019). The explained variance of the dependent variables is analyzed by the coefficient of determination (R^2) based on Cohen (1988). Interactive (R^2=24.5%) and diagnostic (R^2=18.2%) use of PMS, the organizational rationale for sustainability (R^2=36.9%), and individual green performance (R^2=23.4%) express median (R^2=13%) to large (R^2=26%) values, except for the organizational rationale for sustainability, which indicates

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a large explanation ($R^2 \geq 26\%$). The Stone-Geisser value (Q^2) was accessed by blindfolding. Interactive ($Q^2=16.1\%$) and diagnostic ($Q^2=14.5\%$) use of PMS, the organizational rationale for sustainability ($Q^2=25.8\%$), and individual green performance ($Q^2=16.4\%$) indicate acceptable (>0) predictive accuracy values (Hair et al., 2019).

FsQCA

Calibration

In the fsQCA analysis, all variables, whether antecedent conditions or outcomes, must initially be calibrated (Ragin, 2008). Due to the nature of the study variables (collected with multi-item, multipoint scales), the mean values of the items that make up each construct are computed (Woodside, Hsu, & Marshall, 2011). To transform the scale into fuzzy values (0 to 1), three calibration anchors are defined relating to the degree of membership, namely full-membership, crossover-point, and full non-membership (Ragin, 2008). Based on the theoretical and empirical knowledge of the variables (Ragin, 2008), the cutoff point of the variables consists of the 90th, 50th, and 10th percentiles, respectively (Jeronimo, Henriques et al., 2020).

Necessary and sufficient conditions

After calibration, Ragin (2008) suggests the occurrence of a certain outcome from analyzing the necessary and sufficient conditions. This analysis verifies whether the antecedent conditions (green training and involvement, interactive use of PMS, diagnostic use of PMS, organizational rationale for sustainability, and organizational identification) lead the individuals in the sample to achieve high or low outcome levels (individual green performance). A condition is required for a given outcome if its consistency is greater than 0.90 (Schneider & Wagemann, 2010). The highest consistency for high (low) individual green performance is the presence (absence) of green training and involvement (consistencies of 0.78 and 0.76, respectively). Thus, it is assumed that no condition is necessary for a high or low individual green performance. The fact that green training and involvement is the variable closest to being necessary for a high individual green performance is not surprising, since in Jeronimo, Henriques et al. (2020) it was the only one of the investigated green HRM practices that were necessary for a high organizational rationale for sustainability.

In analyzing the sufficient conditions, the combinations of conditions that lead to a certain outcome are verified, indicating equifinality by several configurations (Ragin, 2008). A truth table (2^k rows) was prepared, in which k equals the number of conditions (Ragin, 2008) and to refine it a consistency threshold of 0.90 was applied (Chang & Cheng, 2014). After, two (four) intermediate solutions were highlighted (Table 4) that lead to a high (low) individual green performance. The presentation and arrangement of the elements in Table 4 are based on related literature (e.g., Muñoz-Pascual, Curado, & Galende, 2021).

Table 4. Configurations that lead to high or low individual green performance

Panel A - High individual green performance								
Configurations	**GTI**	**iPMS**	**dPMS**	**ORS**	**OI**	**Coverage**		**Consistency**
						Raw	**Unique**	
Model: IGP = f (GTI, iPMS, dPMS, ORS, OI)								
1	●	●	●	●	○	0.297	0.151	0.917
2	●	●	○	●	●	0.218	0.071	0.928
Overall coverage: 0.368								
Overall consistency: 0.921								
Panel B - Low individual green performance								
Configurations	**GTI**	**iPMS**	**dPMS**	**ORS**	**OI**	**Coverage**		**Consistency**
						Raw	**Unique**	
Model: ~ IGP = f (GTI, iPMS, dPMS, ORS, OI)								
1	○	○	○		○	0.395	0.179	0.890
2	○	●	●	●	○	0.239	0.060	0.910
3		○	○	○	●	0.237	0.049	0.875
4	○	●	●	○	●	0.204	0.047	0.915
Overall coverage: 0.598								
Overall consistency: 0.853								

Note: black circles (●) indicate the presence of a condition; white circles (○) indicate the absence of a condition; blank spaces indicate that the condition is indifferent to the configuration.

The solutions are satisfactorily consistent (>0.80) and have an overall coverage level (0.25-0.90) (Ragin, 2008).

Discussion of results

There is a positive effect (β=0.172, p<0.10) between green training and involvement and an organizational rationale for sustainability, thus supporting H1. This result is consistent with Jeronimo, Henriques et al. (2020) and justifies the prominent position occupied by green training and involvement in HRM practices (Guerci et al., 2016) for increasing employees' perceptions of the organizational rationale for sustainability.

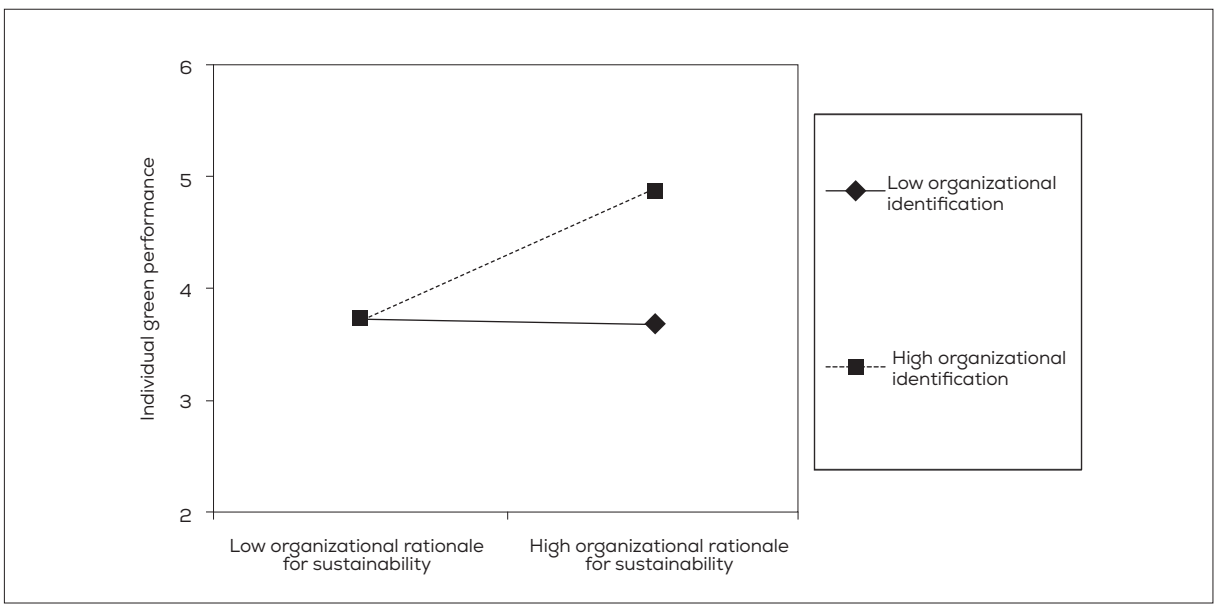
Although green training and involvement are positively related to the interactive use of PMS (β=0.503, p<0.01) and the latter to the organizational rationale for sustainability (β=0.139, p<0.10), the indirect effect is not significant (β=0.070, p>0.10), thus H2 is rejected. Green training and involvement, on the other hand, is related to the diagnostic use of PMS (β=0.437, p<0.01) and the latter to the organizational rationale for sustainability (β=0.424, p<0.01). The indirect effect is also positive and significant (β=0.424, p<0.01), which reveals partial mediation (Hair et al., 2017), thus H3 is supported. This suggests that the implementation, monitoring, and

development of environmental skills and competencies, in addition to employee engagement with proactive behaviors in the green context (green training and involvement) (Guerci et al., 2016; Jeronimo, Henriques et al., 2020), are conveyed via traditional PMS feedback supporting strategy implementation (diagnostic use), but not via dialogue and the signals emitted for attracting attention for supporting new strategies (interactive use) (Henri, 2006; Simons, 1995). This relaying of green training and involvement via the use of performance monitoring measures (diagnostic use) (Henri, 2006; Simons, 1995) aimed at achieving greener behavior (Heggen & Sridharan, 2021) results in greater employee perception of the organizational rationale for sustainability (Tosti-Kharas et al., 2017).

H4 is supported (β=0.279, p<0.01), as there is a positive effect between the organizational rationale for sustainability and individual green performance. This result is anchored in the literature (Tosti-Kharas et al., 2017) and shows that sustaining an organizational rationale for sustainability has an influence on employee behavior and results in sustainable actions (Schneider et al., 2012; Tuan, 2021).

H5 proposes that organizational identification positively moderates the relationship between the perceived organizational rationale for sustainability and individual green performance and is supported (β=0.299, p<0.01). The individuals' sense of belonging in relation to their organization (Mael & Ashforth, 1992) strengthens the relationship between the perceived organizational rationale for sustainability and individual green performance. Figure 2 details this interaction. With weak identification with the organization, or a weak perceived organizational rationale for sustainability, individual green performance remains constant. With high organizational identification and a strongly-perceived organizational rationale for sustainability, the benefits of individual green performance are amplified.

Figure 2. Moderation effect



There are also other indirect effects in the model. First, there is an indirect effect of the diagnostic use of PMS on individual green performance resulting from the organizational rationale for sustainability (β=0.118, p<0.05). Second, consistent with the existence of the more complex pathways of the benefits of HRM practices in relation to green behaviors (Jeronimo, Lacerda et al., 2020), green training and involvement has an influence on individual green performance by the serial mediation of the diagnostic use of PMS and the organizational rationale for sustainability (β=0.052, p<0.05). With regard to the control variables, longer associates positively (β=0.149, p<0.10) with individual green performance.

Two configurations of the conditions (green training and involvement, the interactive use of PMS, the diagnostic use of PMS, the organizational rationale for sustainability, and organizational identification) lead to a strong individual green performance. Green training and involvement, the interactive use of PMS, and the organizational rationale for sustainability are present in both solutions. In Configuration 1, in the absence of organizational identification/belonging (Mael & Ashforth, 1992), the use of performance measures to monitor and track goals and behaviors is critical (Henri, 2006). In Configuration 2, in the presence of a sense of belonging to the organization (Mael & Ashforth, 1992), the diagnostic use of PMS should be absent. This suggests that individuals who feel an identify with the organization need greater freedom and fewer mechanistic controls (Henri, 2006), whereas employees who do not identify with the organization need this type of control to achieve high levels of individual green performance.

Four solutions lead to low levels of individual green performance. The most comprehensive solution, with the exception of the organizational rationale for sustainability, which is shown to be indifferent, is the absence of the other conditions. This finding underlines the fact that when green HRM practices (Guerci et al., 2016; Jeronimo, Henriques et al., 2020; Jeronimo, Lacerda et al., 2020), or organizational control and strategies (Heggen & Sridharan, 2021; Lisi, 2015) are not perceived by employees, sustainable outcomes are not achieved. The absence of or indifference to green training and involvement is one of the main factors for explaining these solutions, resulting in a low performance. This is consistent with Jeronimo, Henriques et al. (2020), who highlight low levels of the organizational rationale for sustainability when green training is absent or indifferent. This highlights the role of green training and involvement in order for employees and the organization to become greener and more sustainable (Guerci et al., 2020). In two of the solutions for low individual performance (Configurations 2 and 4), the interactive use and diagnosis of PMS are both present, but green training and involvement are absent. Inconsistencies in PMS have negative effects on employees (Cäker & Siverbo, 2018), because despite the use of performance measures, in the perception of employees training is not being passed on adequately, and the necessary involvement is not being generated.

CONCLUSIONS

The study examined the effects of green training and involvement on individual green performance with the intervening interactive and diagnostic use of PMS, organizational rationale

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for sustainability, and organizational identification. Like Jeronimo, Lacerda et al. (2020), it was revealed that the path from green HRM practices to employee performance is both complex and intertwined. The conclusion is that green training and involvement is translated into the organizational rationale for sustainability, primarily through the diagnostic use of PMS, leading employees to a higher individual green performance. The benefits of the organizational rationale for sustainability on individual green performance are amplified when employees identify strongly with the organization. The age and gender of employees are characteristics that have little bearing on individual green performance, but a longer time working in the company is positive for better green behavior.

The study also highlights the relevance of analyzing the causal configurations that potentially lead to sustainable behaviors (Jeronimo, Henriques et al., 2020). It was observed that there is no single pathway to achieving a high or low individual green performance, but rather equifinality, that is, more than one configuration leads to the same outcome. Two solutions were found in which employees achieve a high individual green performance: in both green training and involvement, the organizational rationale for sustainability, and the interactive use of PMS are present; and the presence (absence) of organizational identification is aligned with the absence (presence) of the diagnostic use of PMS. This suggests the role of mechanistic control vis-à-vis organizational identification: when the employee does not identify with the organization, the presence of this control is desired, and when they do identify with the organization, its absence is desired. Furthermore, four solutions lead to low individual green performance, all containing the absence or indifference to green training and involvement, which reinforces the role of this green HRM practice.

Theoretical implications

The study contributes to the literature of green HRM practices (Amrutha & Geetha, 2021; Guerci et al., 2016; Jeronimo, Henriques et al., 2020; Jeronimo, Lacerda et al., 2020; Pinzone et al., 2019) by exploring the effects of green training and involvement on employees. It also contributes by pointing out the intervening role of the use of PMS in disseminating green training and involvement and contributing to the organizational rationale for sustainability, as well as corroborating the call for studies that explore antecedents (Jeronimo, Henriques et al., 2020; Jeronimo, Lacerda et al., 2020) and the consequences of the latter (Tosti-Kharas, 2017). It also contributes by exploring the complex (Jeronimo, Lacerda et al., 2020) and asymmetric (Jeronimo, Henriques et al., 2020) pathways that lead employees to engage in sustainable behaviors.

Regarding the organizational identification literature, it contributes by assessing the latter's moderating effect on the relationship between the organizational rationale for sustainability and individual green performance. The combination of high organizational identification and high organizational rationale for sustainability is beneficial for amplifying individual employees' green performance. Furthermore, the results contribute to MCS literature by offering insights into the interactive and diagnostic use of PMS in sustainable behaviors.

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Managerial implications

One of the challenges faced by organizations that seek to improve their sustainable performance is ensuring that this orientation is perceived and embedded by their employees (Chaudhary, 2020). This study highlights that for the organization to achieve this purpose, there must be green training and involvement, a perceived organizational rationale for sustainability, and the interactive and/or diagnostic use of PMS. The provision of training and information sharing (e.g., internal reports, events, newsletters) ensures that the company's sustainability vision and mission (Mandip, 2012) are effectively conveyed to the employee, leading to a better individual green performance. One should also consider the level of organizational identification perceived by employees when defining strategies for using PMS.

Limitations and future research directions

Among the study's limitations is the sample of respondents, which was taken from a single survey entity, so validation of this research instrument using other samples would be appropriate. Another limitation stems from the investigation of a single green HRM practice (green training and involvement): further research could consider the role of other practices. Future research could examine the impact of other MCS on the achievement of individual green performance. Finally, individual green performance may also be influenced by the level of employee motivation or cultural factors in the organization, and future studies could also evaluate their impacts.

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AUTHOR'S CONTRIBUTION

Valter Luís Barbieri Colombo, Anderson Betti Frare and Ilse Maria Beuren declare that they also contributed to the development of the article, including its conceptualization and theoretical-methodological approach, theoretical review (literature survey), data collection and analysis, writing and the final review.

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THE THIEF OF TIME AND SOCIAL SUSTAINABILITY: ANALYSIS OF A PROCRASTINATION AT WORK MODEL

O ladrão do tempo e a sustentabilidade social: Análise de um modelo de procrastinação no trabalho

El ladrón del tiempo y la sostenibilidad social: Análisis de un modelo de procrastinación en el trabajo

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ABSTRACT

Although research on procrastination at work is scarce, existing studies indicate its negative effects in multiple spheres of personal and professional life, with repercussions on individuals' well-being and social sustainability. This study proposes a model that aims to clarify the relationships between the antecedents and consequences of procrastination at work. We follow a bi-dimensional conceptualization of procrastination at work, using the dimensions of soldiering and cyberslacking. The model includes boredom at work as a predictor and work stress and job satisfaction as outcomes. Data from a sample of 287 participants were analyzed with Partial Least Squares. Results show that boredom at work is positively associated with both soldiering and cyberslacking. Results also show that soldiering increases work stress and decreases job satisfaction. Cyberslacking has no significant effects on work stress or job satisfaction. The theoretical and practical implications of this study are further discussed.

Keywords: social sustainability, procrastination at work, boredom at work, work stress, job satisfaction.

RESUMO

Embora as pesquisas sobre procrastinação no trabalho ainda sejam escassas, os estudos existentes apontam para os seus efeitos negativos em múltiplas esferas da vida pessoal e profissional com repercussões no bem-estar e na sustentabilidade social dos indivíduos. Este estudo propõe um modelo que visa esclarecer as relações entre os antecedentes e os consequentes da procrastinação no trabalho. Assim, adotou-se uma conceitualização bidimensional da procrastinação no trabalho, utilizando as dimensões de soldiering e cyberslacking. O modelo inclui o tédio no trabalho como um antecedente da procrastinação, e o estresse no trabalho e a satisfação no trabalho como seus consequentes. Os dados recolhidos a partir de uma amostra de 287 participantes foram analisados com recurso ao método dos mínimos quadrados. Os resultados mostram que o tédio no trabalho está positivamente associado tanto ao soldiering quanto ao cyberslacking. Os resultados também mostram que o soldiering aumenta o estresse e diminui a satisfação no trabalho. O cyberslacking não teve efeitos significativos quer sobre o estresse no trabalho, quer sobre a satisfação no trabalho. São ainda discutidas as implicações teóricas e práticas deste estudo.

Palavras-chave: *sustentabilidade social, procrastinação no trabalho, tédio no trabalho, estresse no trabalho, satisfação no trabalho.*

RESUMEN

Aunque la investigación sobre la procrastinación en el trabajo sea escasa, los estudios existentes ya indican sus efectos negativos en múltiples esferas de la vida personal y profesional con repercusiones en el bienestar de las personas y la sostenibilidad social. Este estudio propone un modelo que tiene como objetivo esclarecer las relaciones entre los antecedentes y los consecuentes de la procrastinación en el trabajo. Para ello, seguimos una conceptualización bidimensional de la procrastinación en el trabajo, utilizando las dimensiones soldiering y cyberslacking. El modelo incluye el aburrimiento en el trabajo como predictor y el estrés laboral y la satisfacción laboral, como consecuentes. Los resultados muestran que el aburrimiento en el trabajo se asocia positivamente tanto con el soldiering como con el cyberslacking. Los resultados también muestran que el soldiering aumenta el estrés laboral y disminuye la satisfacción laboral. También se discuten más a fondo las implicaciones teóricas y prácticas de este estudio.

Palabras clave: *sostenibilidad social, procrastinación en el trabajo, aburrimiento en el trabajo, estrés laboral, satisfacción laboral.*

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INTRODUCTION

Employee well-being is a key element of social sustainability (Sadick & Kamardeen, 2020) and, consequently, of the utmost relevance for the sustainable development of organizations (Fabio, 2017). Healthy organizations must promote working environments conducive to employee well-being (Fabio, 2017). By doing so, they are also enhancing organizational effectiveness since employee well-being is positively associated with employee productivity and performance (Abid, Ahmed, Elahi, & Ilyas, 2020). Consequently, managers aiming to develop organizational sustainability should consider factors affecting employee well-being.

This study focuses on procrastination at work, a topic of research that is still in an early stage of development. In the 18th century, the English poet Edward Young (1742-5) referred to procrastination as "the thief of time", an expression that is also used in recent essays on the topic (e.g., Andreou, 2012). Procrastination at work involves postponing work-related actions during working hours in favor of non-work-related actions (Metin, Taris, & Peeters, 2016). A procrastinator voluntarily delays the performance of necessary activities even when aware of the potential negative consequences of the delay (Klingsieck, 2013; Steel, 2007). Previous studies indicate a relevant relationship between procrastination and well-being (Çelik & Odaci, 2020; Eerde, 2016; Meier, Reinecke, & Meltzer, 2016; Metin, Peeters, & Taris, 2018). Therefore, it stands to reason to argue that identifying the predictors of procrastination may enhance well-being and consequently promote social sustainability.

Available research conducted in organizations recognize the relevance of procrastination at work for both employees and organizations (Metin et al., 2018). Employees spending more than one hour engaged in non-work related or personal activities, represents a considerable productivity loss (D'Abate & Eddy, 2007). Procrastination at work has also been negatively related with work engagement, organizational citizenship behaviors and job performance (Göncü Köse & Metin, 2018; Metin et al., 2018). Research also underlines the negative outcomes of procrastination for employees, such as lower self-efficacy, fatigue, psychological detachment, job stress, job boredom, lower wages, and unemployment (Metin et al., 2018).

Although the literature on procrastination is rapidly growing, several gaps need to be addressed. Firstly, most studies on procrastination have been conducted in academic settings (Khalid et al., 2019; Steel & Klingsieck, 2016), while studies in work settings are still scarce (Metin et al., 2016; Van Eeerde, 2015). Furthermore, most studies in work context have used general life or academic measures of procrastination and not a domain specific measure (Metin et al., 2016).

Secondly, most of the existing studies on procrastination at work have mainly focused on its predictors, while studies on its outcomes are still scarce (Gupta et al., 2012). Moreover, the majority of previous research aiming to identify predictors of procrastination has focused on individual level variables (Klingsieck, 2013; Steel, 2007; Van Eerde, 2003). Not many studies have focused on workplace characteristics or task-related variables, which are fundamental for the development of interventions aimed at reducing procrastination at work. Finally, we were not able to find any comprehensive model involving both predictors and outcomes of procrastination.

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This study intends to fill these gaps by empirically testing a conceptual model that includes antecedents and consequences of procrastination. In order to identify relevant predictors and outcomes of procrastination, we followed two conceptual frameworks that have previously been associated with healthy organizations and, consequently, with social sustainability: Self-Determination Theory and Conservation of Resources Theory.

Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2017) is pertinent for social sustainability since it emphasizes the fulfilment of basic psychological needs (autonomy, competence and relatedness) associated with employees' well-being. According to this theory, tasks and conditions that fulfil an individual's basic psychological needs lead to higher levels of motivation, performance and job satisfaction. By contrast, when basic psychological needs are not meet, tasks become more aversive, thus enhancing procrastination (Steel, 2007). Given that boredom is a task condition with low levers of stimulation and high levels of routine, basic psychological needs are unlikely to be met under these circumstances. Boredom is thus associated with procrastination (Metin et al., 2016) and we will consider it as a predictor in the model. On the other hand, procrastination may induce a vicious circle (Steel, 2007), leading to a lower fulfilment of the basic psychological needs and lower job satisfaction (Farivar & Richardson, 2018; Mohsin & Ayub, 2014). Given that Self-Determination Theory indicates that job satisfaction is affected by procrastination, we will consider job satisfaction as an outcome in the model.

Conservation of Resources Theory (Hobfoll, 1989; Hobfoll et al., 2018) is also important for healthy and sustainable organizations because of its emphasis on personal resources. According to this theory, human behavior is based on the need to acquire and conserve resources. It is a fundamental principle of the theory that actual or potential loss of resources leads to stress. Given that time is a relevant resource (Hobfoll et al., 2018) and that procrastination entails a loss of this resource, it is arguable that stress will be a likely outcome of procrastination.

In sum, the model includes a task-related predictor of procrastination at work - boredom at work - and two consequences of procrastination at work - work stress and job satisfaction. Given that work stress and job satisfaction are components of work-related well-being (Rothmann, 2008), we aim to contribute to the knowledge of this important aspect of social sustainability.

LITERATURE REVIEW

Procrastination at work has been conceptualized as "putting off work-related action by engaging in nonwork-related actions during work hours" (Metin et al., 2016:254). Procrastination has been seen as a conscious and voluntary action of delaying something that needs to be done despite the individual being aware of the negative consequences of that delay (Klingsieck, 2013; Steel, 2007).

Procrastination has been considered as a pervasive and counterproductive behavior, with negative consequences in multiple spheres of the personal and professional life (Dewitte & Lens, 2000; Steel, 2007). Although some authors have underlined the existence of a functional side of procrastination (e.g., Chun Chu & Choi, 2005; Schraw et al., 2007; Shin & Grant, 2020), research

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evidence has stressed its negative effects on individuals' mental and physical health, economic status and well-being levels (Çelik & Odaci, 2020; Codina et al., 2020; Metin et al., 2016; Skowronski & Mirowska, 2013; Van Eeerde, 2016). At the organizational level, studies have often reported the negative impact of procrastination on employee productivity and performance (Thatcher et al., 2008), which is particularly serious given the huge market pressures that organizations are currently undergoing (Barabanshchikova et al., 2018).

Recent studies have pointed out that procrastination at work has two dimensions: soldiering and cyberslacking (Metin et al., 2016). Soldiering refers to work or task avoidance behavior for more than one hour a day, without the intention of harming others, or overloading them with more work (Paulsen, 2013). Soldiering occurs when an employee has a weak ethical relationship with work, does not identify with it, or professional demands fall short of individual potential (Paulsen, 2013). Soldiering involves behaviors that are associated with negative performance outcomes, which in turns reduces self-efficacy, leading to a vicious cycle of poor performance (Steel, 2007). Daydreaming, engaging in pleasurable activities to the detriment of professional tasks, or taking long coffee breaks are examples of soldiering behaviors (Metin et al., 2016).

Cyberslacking stems from the widespread use of mobile technology at work and involves employees that may appear to be working, but are actually shopping online, surfing social networks, playing games or sending instant messages (Vitak et al., 2011). Similar to soldiering, cyberslacking has also been linked to extremely high costs for organizations, notably lower productivity (Garrett & Danziger, 2008).

In the following sections we discuss in more detail the variables included in our conceptual model of procrastination.

Predictors of procrastination at work

As far as the antecedents of procrastination at work are concerned, existing studies have focused mostly on personality factors (e.g., Milgram & Tenne, 2000; Steel, 2007) or on situational factors (e.g., Metin et al., 2016; Reijseger et al., 2012). According to Barabanshchikova et al. (2018), procrastination may result from work-related factors, such as a low stimulating or challenging environment, particularly relevant for those seeking more creative, less administrative or less routine tasks.

There is widespread agreement that an under-stimulating work environment is associated with a cognitive-motivational state of low arousal and dissatisfaction known as boredom at work (Fisher, 1993; Game, 2007; Loukidou et al., 2009; Schaufeli & Salanova, 2014; Reijseger et al., 2012; Vodanovich & Watt, 2016).

Diverse scholars (e.g., Elpidorou, 2018; Martin et al., 2006; Reijseger et al., 2012; Vodanovich & Watt, 2016) have pointed out the negative impact of boredom on life satisfaction and well-being. Reijseger et al. (2012) considered boredom at work as a state of employee unwell-being. Authors that conceive boredom as a personal trait, consider that boredom-prone people tend to engage themselves in risk-taking behavior (e.g., reckless driving, binge eating, drug and alcohol abuse, and problem gambling) in order to find something that may excite them (Elpidoru, 2018).

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Employees who do not experience high levels of stimulation tend to have less cognitive energy, less commitment to their work, lower job satisfaction, lower job involvement, increased job stress and actively seek more pleasurable distractions (Elpidorou, 2018; Metin et al., 2016; Reijseger et al., 2012).

Previous research also indicates that, when boredom at work increases, employees are more prone to use communication technology for nonwork-related activities during work (cyberslacking) or taking longer coffee breaks (soldiering) (Eddy et al., 2010; Metin et al., 2016; Wan et al., 2014). The results of these studies are in accordance with reasonings derived from Self-Determination Theory. As mentioned earlier, given that boredom is associated with low stimulating contexts, where basic psychological needs are unlikely to be met, boredom may enhance task aversion and, consequently, procrastination. Hence, we propose:

H1: Boredom at work increases cyberslacking

H2: Boredom at work increases soldiering

Outcomes of procrastination at work

Although studies on the outcomes of procrastination at work are still scant, existing studies have pointed out some relevant detrimental effects of procrastination for both individuals and organizations: losses of productivity (Lim & Teo, 2005); counterproductive behaviors such as withdrawal and abuse (Metin et al., 2016); lower salaries, shorter durations of employment and a greater likelihood of being unemployed or under employed (Nguyen et al., 2013); increased rates of work stress (Sirois, 2014); and reduced job satisfaction (Mohsin & Ayub, 2014). In the present study we focus on two relevant outcomes of procrastination at work that are related to the pleasure-displeasure dimension and the anxiety-comfort dimension of work-related well-being, respectively, job satisfaction and work stress (Rothmann, 2008).

Work Stress

Work stress may be defined as an individual's feelings of personal dysfunction as a result of perceived conditions in the work setting (Parker & DeCotiis, 1983). It thus refers to individual reactions to work conditions perceived as emotionally or physically threatening (Jamal, 2005). Several studies have provided evidence that work stress is negatively associated with well-being (e.g., Hart et al., 1995; Krause & Stryker, 1984; Li et al., 2021; O'Neill & Davis, 2011). Work stress is also put forward as a relevant challenge for human resources sustainability in organizations (Rajamohan et al., 2019; Wykes et al., 1997).

Previous studies on the relationship between procrastination at work and work stress have reported results that are apparently contradictory. On the one hand, procrastination can be considered as a way to cope with the pressure, allowing for temporary relief from stress by

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postponing the task (Tice, Bratslavsky, & Baumeister, 2001). On the other hand, procrastination can be viewed as a disabling behavior that leads to a waste of time, poor performance, and consequently increased stress (Chu & Choi, 2005; Metin et al., 2016; Steffy, Jones, & Noe, 1990). Eerde (2003) found that when employees were given time management training to reduce procrastination, they presented lower stress levels, reinforcing the positive relationship between procrastination at work and stress.

A possible explanation for these contradictory results may be that previous studies have not analyzed the effects of the two dimensions of procrastination at work - soldiering and cyberslacking - on work stress, separately. In this study, we contribute by clarifying the relationship between the two dimensions of procrastination at work and work stress.

Since soldiering is associated with the postponement of a task, it entails a loss of the time available to complete that task. According to conservation of resources theory, the loss of a relevant resource, such as time, is likely to lead to higher levels of stress (Hobfoll et al., 2018). Therefore, we propose:

H3: Soldiering increases work stress

There is still a lack of consensus on the relationship between cyberslacking and work stress. Several studies have pointed out that using the Internet for non-professional purposes during working hours can be a way of distancing oneself from stressors and relaxing from work tasks, therefore reducing stress (e.g., Andel, Kessler, Pindek, Kleinman, & Spector, 2019; Askew et al., 2014; Coker, 2013; Eddy et al., 2010; Lavoie & Pychyl, 2001; Lim & Chen, 2012; Meier et al., 2016; O'Neill, Hambley, & Bercovich, 2014; Reinecke, 2009; Tu & Chang, 2010). However, other authors (e.g., Lim & Teo, 2005) suggest that cyberslacking, diverting attention from tasks and preventing their completion, leads to work accumulation, therefore increasing work stress. Garrett and Danziger (2008), in turn, report that there is no relationship between time spent on non-work Internet activities and work stress.

These mixed results may be due to the fact that individuals may either associate cyberslacking with coping with work stressors, or with the accumulation of tasks and the loss of time available to complete those tasks. In this study, issues of postponing/accumulating tasks are covered in the soldiering dimension of procrastination. Therefore, it stands to reason to consider that the cyberslacking dimension of procrastination will be more associated with coping and/or relaxing mechanisms that allow individuals to reduce stress. We thus propose the following hypothesis:

H4: Cyberslacking decreases work stress

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Job satisfaction

In the literature on job satisfaction, Locke (1976) is one of the most cited references. Locke defines job satisfaction as a positive emotional state resulting from the employees' job experiences. More recently, job satisfaction is generally defined as an employee's attitude (positive or negative) toward their job and job context, involving both cognitive and affective dimensions (e.g., Schlett & Ziegler, 2014; Weiss, 2002).

In his seminal work, Locke (1976) associates job satisfaction with aspects of well-being, such as health and life happiness. The meta-analytical work of Bowling, Eschleman, and Wang (2010) confirms the positive link between job satisfaction and well-being. Recent studies also show that job satisfaction is a component of sustainable human resource practices and contributes to long-term sustainable organizations (e.g., Davidescu, Apostu, Paul, & Casuneanu, 2020; Heimerl, Haid, Perkmann, & Rabensteiner, 2020; Strenitzerová & Achimský, 2019).

According to self-determination theory, the fulfilment of basic psychological needs is associated with higher levels of job satisfaction (Gagné & Deci, 2005; Slemp, Kern, Patrick, & Ryan, 2018). As mentioned earlier, procrastination tends to occur in conditions of low simulation, where these needs are unlikely to be fulfilled, and task aversion is heightened. By procrastinating, the individual does not solve the conditions that lead to task aversion but may induce a vicious circle where these conditions are worsened (Steel, 2007). Therefore, reasonings derived from self-determination theory seem to indicate a negative association between procrastination and job satisfaction.

While we did not find studies simultaneously researching both dimensions of procrastination, some studies indicate a negative association between the soldiering dimension and job satisfaction (Macan, 1996; Mohsin & Ayub, 2014). Mohsin and Ayrub (2014) analyzed a sample of high school teachers and concluded that employees who postpone tasks have lower job satisfaction. In an earlier study, Macan (1996) found that employees who optimize time management show higher levels of job satisfaction. Based on self-determination theory and this evidence, we propose:

H5: Soldiering decreases job satisfaction

The impact of cyberslacking on job satisfaction is not consensual in the literature. The results of Farivar and Richardson (2018) are in line with the expectation, derived from self-determination theory, that cyberslacking has a negative effect on job satisfaction. By contrast, Andel et al. (2019) suggest that Internet use in the workplace for personal purposes can have a positive effect on job satisfaction because it can diminish the negative effect of stressful work events (e.g., being the victim of workplace aggression) on job satisfaction. Additionally, Garrett and Danziger (2008) conclude that there is no relationship between job satisfaction and the amount of time spent using the Internet for nonwork-related activities during working hours. It appears that cyberslacking might be positively associated with job satisfaction in specific cases,

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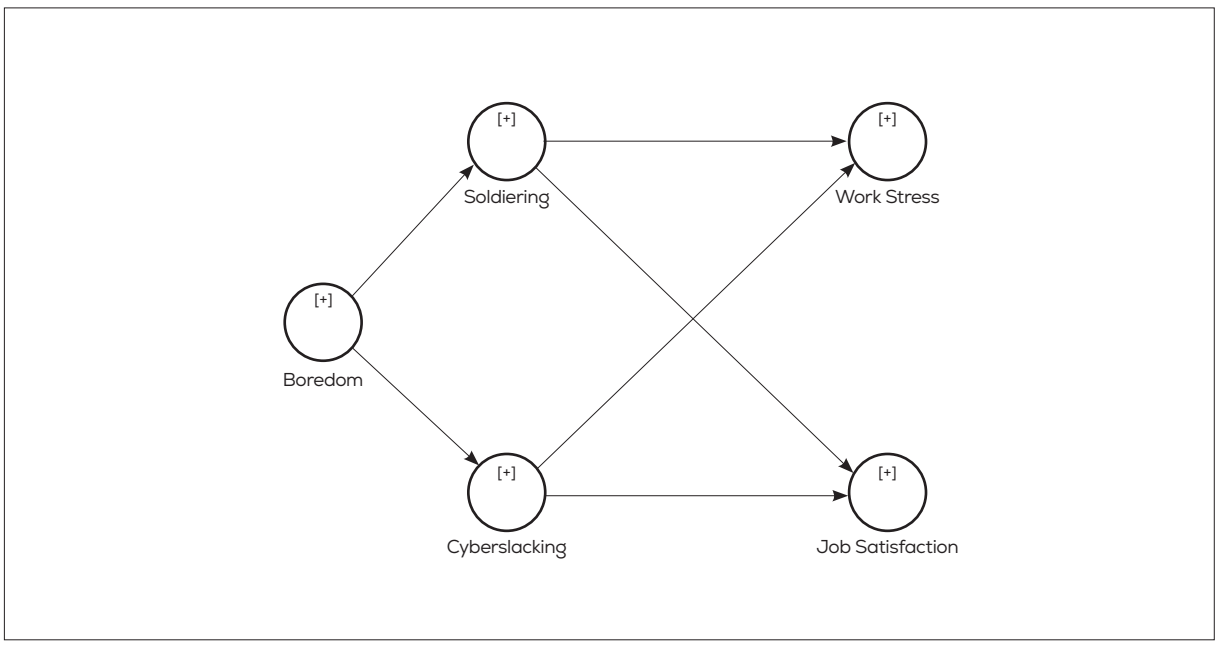
such as workplace aggression exposure, while in general, the association is negative. We follow the reasoning derived from self-determination theory and propose:

H6: Cyberslacking decreases job satisfaction

RESEARCH MODEL

The research model in Figure 1 depicts the relationships under study.

Figure 1. Research model



METHOD

Participants

A convenience sample of 287 participants completed an online questionnaire developed in Qualtrics XM. The link to the questionnaire was publicized in social networks and sent by e-mail to the researchers' personal contacts. We collected 300 responses, but 13 were incomplete and were, therefore, excluded. In the total sample, 94 of the participants were male and 193 female. The average age was 34,5 (SD = 11,97), and the majority of participants (78.3%) had a Bachelor degree or above.

Measures

Boredom at work was measured using the one-dimensional boredom at work scale developed by Reijseger et al. (2012). It consists of six items (e.g., "I feel bored at my job") on a 5-point scale ranging from never (1) to always (5).

Procrastination at work was measured with the Procrastination at Work Scale (PAWS) developed by Metin et al. (2016). It consists of twelve items that assess two dimensions of procrastination at work: soldiering (e.g., "I delay some of my tasks just because I do not enjoy doing them") and cyberslacking (e.g.," I do online shopping during working hours"), on a 5-point scale ranging from totally disagree (1) to totally agree (5).

Work Stress was measured with the General Work Stress Scale (GWS) developed by de Bruin and Taylor (2005). Items from the original scale were formulated as questions, but we formulated them as affirmations using the first person in order to be consistent with the other scales included in the questionnaire. The scale contains 9 items (e.g., "My work makes me so stressed I wish I had a different job") on a 5-point scale ranging from never (1) to always (5).

Job satisfaction was measured with the Job Diagnostic Survey developed by Hackman and Oldham (1975). It consists of 5 items (e.g., "Generally speaking, I am very satisfied with this job") on a 5-point scale ranging from disagree strongly (1) to agree strongly (5).

RESULTS

Structural equations modeling (SEM) was used to test the model, and partial least squares (PLS) was preferred over CB (Covariance Based) data analysis because PLS is more appropriate for exploratory research (Henseler et al., 2014). Another reason to use PLS was that it allows for estimating models without imposing distributional assumptions on the data (Hair, Risher, Sarstedt, & Ringle, 2019). This was particularly relevant since some of the original variables in the model did not follow a normal distribution. Data was analyzed with the software SmartPLS version 3 (Ringle, Wende, & Becker, 2015).

Descriptive Analysis

Table 1 shows the items and their respective loadings for each construct. It is noteworthy that items with loadings under .5 were considered to have poor reliability and, consequently, were deleted from the original scales (Hair, Hult, Ringle, & Sarstedt, 2017). Table 1 also provides information on the means and standard deviations of the items.

Since self-report measures were used for all variables, we tested for common method bias through a full collinearity assessment approach (Kock, 2015). All the variance inflation factor values (VIF) were lower than the threshold (3.3), indicating that the model is free from common method bias.

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Table 1. Means, standard deviations, and standardized loadings of indicators

Construct	Indicators	Mean	Std dev.	Loading	Bootstrap t-test	p-value
Boredom	I feel bored at my job.	2.63	.82	.724	15.684	.000
	During work time I daydream.	2.41	.80	.836	34.136	.000
	I tend to do other things during my work.	2.13	.86	.676	11.217	.000
Cyberslacking	I use Instant Messaging at work for non-work purposes.	2.92	1.07	.806	22.239	.000
	I spend more than half an hour on social network sites on work per day for non-work purposes.	2.23	1.25	.863	35.066	.000
	I read news online at work.	2.60	1.19	.826	25.918	.000
	I do online shopping during working hours.	1.67	.94	.716	11.570	.000
Soldiering	I delay before starting on work I have to do.	2.24	.86	.709	14.867	.000
	At work, I crave a pleasurable diversion so sharply that I find it increasingly hard to stay on track.	1.91	.81	.626	12.858	.000
	When a work task is tedious, again and again I find myself pleasantly daydreaming rather than focusing.	2.46	.89	.779	28.030	.000
	I delay some of my tasks just because I do not enjoy doing them.	2.13	.85	.768	21.169	.000
	When I work, even after I make decision, I delay acting upon it.	1.84	.74	.664	14.643	.000
Work Stress	My work makes me so stressed I wish I had a different job.	2.44	1.10	.828	42.288	.000
	I get so stressed at work that I want to quit.	1.99	1.06	.871	55.042	.000
	I worry about having to wake up and go to work in the morning.	2.31	1.20	.612	11.195	.000
	I find it difficult to sleep at night because I worry about my work.	2.33	1.05	.560	8.913	.000
	I get so stressed at work that I forget to do important things.	1.90	.80	.612	9.616	.000
	My work makes me so stressed that I find it hard to concentrate on my tasks	1.93	.86	.703	12.202	.000
	I feel like I cannot cope with my work anymore.	1.76	.99	.869	51.899	.000
	My work makes me so stressed that I lose my temper.	2.10	.95	.818	30.017	.000
Job	Generally speaking, I am very satisfied with this job.	3.64	1.03	.818	30.108	.000

(Continue)

Table 1. Means, standard deviations, and standardized loadings of indicators (Concludes)

Construct	Indicators	Mean	Std dev.	Loading	Bootstrap t-test	p-value
Satisfaction	I frequently think of quitting this job (r).	3.36	1.20	.842	47.889	.000
	I am generally satisfied with the kind of work I do in this job.	3.67	.92	.792	26.350	.000
	Most people on this job are very satisfied with the job.	3.05	.94	.629	12.265	.000
	People on this job often think of quitting (r).	2.93	.90	.621	11.991	.000

Measurement, reliability and validity

Table 2 presents the results for the assessment of reliability. We used composite reliability, for which the acceptable threshold is .7 (Hair, Ringle, & Sarstedt, 2011). All constructs in the model exceeded this threshold. In fact, except for the Boredom at Work, all composite reliabilities were above .8, while Work Stress was above .9. Therefore, these results indicate construct reliability (Fornell & Larcker, 1981).

Table 2. Reliability and validity measures

Latent variables	Composite reliability	Average variance extracted
Boredom	.791	.560
Cyberslacking	.880	.648
Job satisfaction	.861	.557
Soldiering	.836	.507
Work stress	.906	.553

Results for validity can be found in Table 2 (convergent validity) and Table 3 (discriminant validity). Table 2 presents the average variance extracted (AVE), for which the acceptable threshold is .5. All constructs exceed this threshold, providing evidence of convergent validity (Fornell & Larcker, 1981). A complement to this convergent validity analysis can be found in Table 1, where the bootstrap t-statistics of the indicators' standardized loadings are presented. Given that, for all indicators, these statistics are significant at the 1% significance level, there is further evidence on the convergent validity of the measurement models (Anderson & Gerbing, 1988).

Table 3 compares the square root of AVE of a construct with the correlation of that construct with each of the other constructs in the model. In all cases, the square roots of the AVE are higher than the correlations, providing evidence of discriminant validity (Fornell & Larcker, 1981).

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Table 3. Correlations between latent variables and square roots of average variance extracted

	Boredom	Cyberslacking	Job satisfaction	Soldiering	Work stress
Boredom	**.749**				
Cyberslacking	.430	**.805**			
Job satisfaction	-.430	-.019	**.747**		
Soldiering	.581	.355	-.200	**.712**	
Work stress	.458	.049	-.632	.365	**.744**

Note: Numbers in bold denote the square root of the average variance extracted

Analysis of the structural model

After ensuring the reliability and validity of the measurement models, we analyzed the structural model to test the hypotheses (Henseler, Ringle, & Sinkovics, 2009).

After carrying out bootstrapping and pseudo t-tests, we concluded that all except two-path coefficients presented a t-value above 1.96 ($p < .05$). The two exceptions were the path coefficient between cyberslacking and job satisfaction (t=.883, p=.377) and between cyberslacking and work stress (t=1.495, p=.135). Therefore, hypotheses H1 to H4 were validated, but hypotheses H5 and H6 were not validated.

After deleting the non-significant relationships from the model (Figure 2), it is possible to verify a significant relationship between boredom at work and the variables of soldiering (β=.602, p<.01) and cyberslacking (β=.481, p<.01); and between soldiering and the variables job satisfaction (β=-.234, p<.01) and work stress (β=.411, p<.01). Additionally, there are two significant indirect effects: soldiering mediates between boredom and job satisfaction (β=-.141, p<.01), as well as between boredom and job stress (β=.247, p<.01).

After analyzing the effect sizes (f^2, Table 4), we conclude that there is one strong effect in the relationship between boredom at work and soldiering (effect size > .35). We also find two moderate effects (>.15), between boredom at work and cyberslacking and between soldiering and work stress. The remaining effect, between soldiering and job satisfaction, is weak (Cohen, 1988).

Table 4. Significance and effects sizes of direct path coefficients

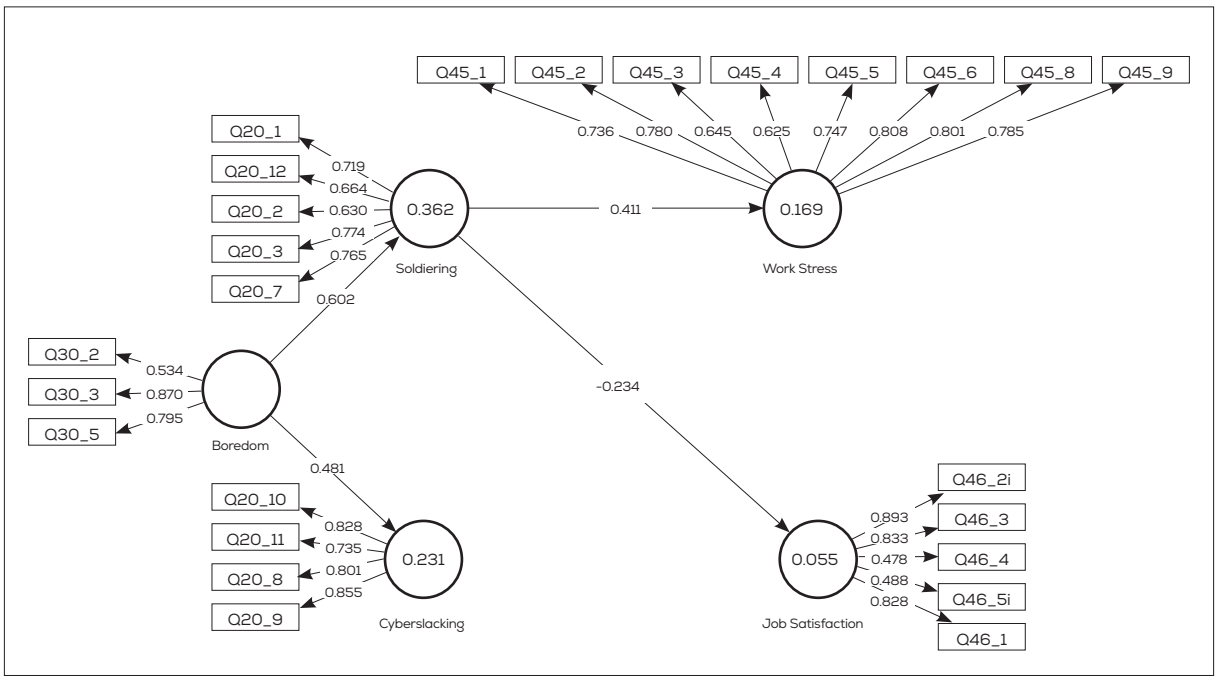
Effect	Path Coefficients	Bootstrap t-test	p-value	f^2
Boredom->Soldiering	.602	15.250	0.000	**.568**
Boredom-> Cyberslacking	.481	10.075	0.000	.300
Soldiering -> Work Stress	.411	4.404	0.000	.203
Soldiering-> Job satisfaction	-.234	8.247	0.009	.058

Note: Numbers in bold denote strong effect sizes

f^2 = Effect size

Figure 2 depicts the final structural model.

Figure 2. Final structural model



To evaluate the explanatory power of the model (Sarstedt, Ringle, Smith, Reams, & Hair, 2014) we analyzed the coefficient of determination (R^2) of the endogenous constructs. The model explains 5.5% of variance for job satisfaction and 16.9% for work stress.

Finally, to assess the predictive relevance of the model, we used blindfolding to calculate Stone-Geiser's Q^2. As the values of Q^2 are above zero for the endogenous constructs in our study (Q^2=.020 for job satisfaction; Q^2=.076 for work stress), the model is considered to have predictive relevance (Hair et al., 2011).

DISCUSSION AND CONCLUSION

This study tested a conceptual model that involves one predictor and two outcomes of procrastination at work. Results show that boredom at work is a predictor of both dimensions of procrastination at work. It has a strong effect on soldiering, which means that bored employees tend to delay tasks that they do not like and daydream rather than focus on work. Boredom at work also has a moderate effect on cyberslacking, evidencing that bored employees are more prone to behaviors such as using instant messaging for personal use, spending time on social network platforms, and reading news online at work. These results corroborate those from previous studies (Eddy et al., 2010; Metin et al., 2016; Reijseger et al., 2012; Wan et al., 2014), who reported that bored employees tend to take long coffee breaks (soldiering) and engage

more in non-work-related use of communication technology (cyberslacking). Managers who wish to reduce job procrastination and its negative outcomes should promote working arrangements (e.g., job crafting) that fit employees' preferences and competences promoting a more stimulating and challenging working environment, reducing boredom at work (Metin et al., 2016; Reijseger et al., 2012).

Results also show that soldiering has a moderate effect on work stress, increasing it, as previous studies have already suggested (e.g., Anderson & Pulich, 2001). Soldiering also reduces job satisfaction, but this effect is weak, suggesting that there are other aspects besides soldiering that concur to explain job satisfaction. Nevertheless, this is a contribution of the study because it is, to the best of our knowledge, the first study to relate the soldiering dimension of procrastination at work to job satisfaction.

Results on the effects of soldiering indicate that this is an important issue for organizations. Managers should thus provide time management training, which has proved to have a positive impact on reducing procrastination at work and, subsequently, work stress (Eerde, 2015) and increasing job satisfaction (Chang & Nguyen, 2011; Claessens, Eerde, Rutte, & Roe, 2007). Setting goals and priorities increase employees' time structure and, subsequently, their job satisfaction and wellbeing (Chang & Nguyen, 2011).

It is noteworthy that cyberslacking has no significant effect on work stress or job satisfaction. Previous research provided contradictory results for the effects of cyberslacking, with some studies indicating that it increases work stress (Lim & Teo, 2005) and job satisfaction (Andel et al., 2019), while other studies indicate that it reduces work stress (Andel et al., 2019) and job satisfaction (Farivar & Richardson, 2018). It is thus possible that for some participants, cyberslacking increases these variables, while for other participants, there is a reducing effect. Consequently, the fact that the overall effect was non-significant should be interpreted with caution. More research is needed on variables affecting the relationship between cyberslacking and variables such as job satisfaction and work stress.

We believe that this study contributes to the procrastination literature in several ways. Firstly, by analyzing the two dimensions of procrastination at work separately, we were able to see the differentiated effects of the two dimensions on work stress and job satisfaction and therefore attempt to explain the controversial results of previous studies that focused on procrastination as a unidimensional concept. Thus, we suggest that future research should include both dimensions in other organizational settings to validate the results from this study.

Secondly, most previous research aiming to identify predictors of procrastination focused on individual level variables (Eerde, 2003; Klingsieck, 2013; Steel, 2007). Not many studies have focused on workplace characteristics or task-related variables, which are fundamental for the development of interventions aimed at reducing procrastination at work.

Thirdly, we tested a comprehensive model involving both predictors and outcomes of procrastination, which is, to our knowledge, the first accomplished attempt to do so, considering that existing studies on procrastination at work have either focused on its predictors or its outcomes.

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The main limitation of this study is that a convenience sample was used. Therefore, the results must be interpreted with caution. Besides, although results for the structural model appear to be in line with previous studies, they are still tentative, as some effect sizes are weak. Another limitation is that all measurements were collected at the same point in time. To testify the causality of relationships, we suggest that future research on the topic follows a longitudinal approach. We also suggest that future research includes other predictors of procrastination (e.g., personality factors) and outcomes (e.g., performance, productivity, creativity) to reach an even more comprehensive model of procrastination at work. Identifying the predictors of procrastination at work is an essential step for reducing this counterproductive behavior and, consequently, enhancing well-being and social sustainability.

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AUTHOR'S CONTRIBUTION

Pilar Mosquera coordinated the conceptualization and theoretical-methodological approach. Maria Eduarda Soares coordinated the theoretical review. Data collection was conducted by Paula Dordio and Leonor Atayde e Melo. Data analysis included Pilar Mosquera and Maria Eduarda Soares. Pilar Mosquera, Maria Eduarda Soares, Paula Dordio, and Leonor Atayde e Melo worked in the writing and final revision of the manuscript.

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WHAT ARE THE HUMAN RESOURCES POLICIES AND PRACTICES MOST USED BY COMPANIES WITH THE BEST ESG RATIOS IN BRAZIL?

Quais são as políticas e práticas em recursos humanos mais utilizadas pelas empresas com melhores índices ESG no Brasil?

¿Cuáles son las políticas y prácticas de recursos humanos más utilizadas por las empresas con mejores índices ESG en Brasil?

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ABSTRACT

Research on the interaction between people management and sustainability in Brazil is recent, although it corresponds to a growing movement. The present study aimed to investigate which human resources policies and practices are most commonly used in Brazilian companies that stand out in ESG (environmental, social and governance) terms, and to find out, among these policies and practices, which would contribute the most to ESG ratings. For this purpose, the 106 Brazilian companies available in the Refinitiv ESG scores system were analyzed for the period from 2015 to 2019, considering the metrics for the category workforce (social dimension). Results showed that most ESG top-tier companies have already incorporated several workforce-related policies; however, the practice still lags behind the policy. Additionally, some metrics were identified as opportunities for improvement, such as the implementation of certain practices regarding the supply chain, the existence of a team focused on health and safety, and the implementation of training and development, as well as diversity and opportunity policies.

Keywords: sustainable human resources management, health and safety, diversity and opportunity, ESG in people management.

RESUMO

Pesquisas sobre a interação entre a gestão de pessoas e a sustentabilidade no Brasil são recentes, embora o movimento seja crescente. O presente estudo teve como objetivo investigar quais políticas e práticas em recursos humanos são mais comumente utilizadas por empresas brasileiras que se destacam em ESG (environmental, social and governance) e averiguar, entre essas políticas e práticas, quais contribuem mais fortemente para ratings em ESG. Para tanto, analisaram-se as 106 empresas brasileiras disponíveis no sistema Refinitiv ESG scores no período entre 2015 e 2019, no que tange às métricas sob a categoria de colaboradores (dimensão social). Os resultados demonstraram que grande parte das empresas nos níveis mais altos de ESG já incorporou diversas políticas relacionadas a colaboradores; no entanto, a prática ainda se encontra aquém das políticas. Adicionalmente, identificaram-se métricas que podem representar uma oportunidade de melhoria, como a aplicação de práticas junto à cadeia de suprimentos, existência de equipe focada em saúde e segurança e implementação de políticas voltadas a treinamento e desenvolvimento, diversidade e oportunidade.

Palavras-chave: *gestão sustentável de recursos humanos, saúde e segurança, diversidade e oportunidade, ESG em gestão de pessoas.*

RESUMEN

La investigación sobre la interacción entre la gestión de recursos humanos y la sostenibilidad en Brasil es reciente, aunque el movimiento está creciendo. Este estudio tuvo como objetivo investigar qué políticas y prácticas de recursos humanos más utilizan las empresas brasileñas que se destacan en ESG y averiguar, entre estas políticas y prácticas, cuáles contribuyen con mayor fuerza a la calificación ESG. Para ello, se analizaron las 106 empresas brasileñas disponibles en el sistema de puntuación ESG de Refinitiv entre 2015 y 2019, en términos de métricas bajo la categoría de empleados (dimensión social). Los resultados mostraron que la mayoría de las empresas de primer nivel en ESG ya han incorporado varias políticas relacionadas a los empleados; sin embargo, la práctica aún va a la zaga de las políticas. Adicionalmente, se identificaron métricas que podrían representar una oportunidad de mejora, como la aplicación de prácticas en la cadena de suministro, la existencia de un equipo enfocado en salud y seguridad y la implementación de políticas de capacitación, desarrollo, diversidad y oportunidad.

Palabras clave: *gestión sostenible de recursos humanos, salud y seguridad, diversidad y oportunidad, ESG en gestión de personas.*

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INTRODUCTION

The concept of sustainability is often defined as the ability to achieve a degree of development that meets the needs of the present while allowing future generations to meet their future needs (Armstrong, 2020).

Although sustainability aspects have been discussed for almost 70 years, ESG as a concept encompassing environmental, social, and governance aspects, emerged in 2004 from a letter the United Nations sent to the main financial institutions worldwide, inviting them to join an initiative to build stronger and more resilient financial markets through sustainable development (Compact, 2004). Since then – and especially in recent years – global institutional stakeholders and investors have demanded more sustainable investment options in financial markets (Bertolotti, 2020). In 2020, the estimated value of assets managed by funds looking at ESG practices in their investment analysis was over USD 40 trillion (compared to around USD 30 trillion in 2018 and USD 22 trillion in 2016) (Foubert, 2020).

Although there is no defined standard for disclosing ESG information, the growing demand from the capital market has pressured companies to adopt certain practices and reports. In most countries, there is still no mandatory disclosure of ESG information. However, it is estimated that more than 85% of S&P 500 companies and more than 90% of the largest global organizations disclose reports with some non-financial information (Ho & Park, 2019).

Given its relevance, there is a growing number of academic research on the topic, especially in developed economies. Mervelskemper and Streit (2017), for example, concluded that ESG practices seem to add value for companies. In addition, Lopez-de-Silanes, McCahery, and Pudschedl (2020) analyzed companies from the United States, United Kingdom, Japan, Switzerland, Australia, and France. The authors suggest that better disclosure of ESG information is correlated with reduced risk perception.

In Brazil, more ESG research is necessary given that sensitive Brazilian industries can be positively affected by social and corporate governance practices (Miralles-Quirós, Miralles-Quirós, & Gonçalves, 2018), and investment strategies linked to ESG may result in better risk-return weights in the long term (Jukemura, 2019).

The debate on sustainable development may bring significant changes to strategic people management and to companies that incorporate such management into their business vision (Pires & Fischer, 2014). In addition, the interaction between sustainability and human resources can bring cross-sectional benefits to organizations and their stakeholders, contributing to society's sustainable development (Mendes, 2013).

International studies link ESG ratings to employee performance. For example, Barrymore and Sampson (2021) suggest that a positive ESG performance positively and significantly affects work productivity. Liu and Nemoto (2021) understand that companies with higher ESG scores have competitive advantages in attracting and retaining talent. Skousen and Sun (2019) evaluated the MSCI ESG indicator between 1991 and 2015. The authors found a significant positive

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relationship between workforce performance, workforce-related metrics, and ratings assigned to the social dimension.

In Brazil, Alvares and Souza (2016) found that employee-oriented practices generate talent attraction and retention and positively affect the corporate image, workforce integration, financial performance, social capital, and employee satisfaction.

In this context, this study investigates (i) which policies and practices in human resources are most commonly used among Brazilian companies adopting the ESG concept, and (ii) among these policies and practices, which contribute to a better ESG rating from a business perspective.

The 106 Brazilian companies with data available in the Refinitiv ESG scores system between 2015 and 2019 were analyzed to observe the most frequent metrics in companies with good ESG performance and the contribution of these metrics to the respective ratings.

For Lourenço and Carvalho (2013), studies related to sustainable development in Brazil are mainly connected to the environmental and financial dimensions, with comparatively marginal social aspects (which represents an important gap in the literature). Additionally, research on the interaction between human resources and sustainability in Brazil is recent and incipient. Another aspect that deserves further research is that many executives and managers could not yet integrate people management into the culture of sustainability (Freitas, Souza, Teixeira, & Jabbour, 2013). This scenario follows the pace of the increasing demand for incorporating ESG into corporate management (Freitas et al., 2013). This study seeks to contribute in academic terms, helping to better understand the dialogue between human resources and sustainability while identifying potential ESG drivers for people management in Brazil.

Jiang, Takeuchi, and Jia (2021) suggest that companies are often based on the actions of their peers, and such behavior plays a critical role in providing helpful information for making investment decisions and innovating in people management. Therefore, this research represents a tool for companies, human resources professionals, and people managers to understand the current market better and expand their ESG policies and practices.

Additionally, although human capital is a fundamental object of study at the corporate level, investors started to observe metrics related to this issue only recently (Kotsantonis & Serafeim, 2020). This study may support financial analysts, portfolio managers, and investors in using social metrics when assessing investments.

This introduction briefly presented the ESG concept, considering its challenges in the current scenario and the expected contribution of this research to a dialogue between people management and ESG. The theoretical framework in the next section offers a review on the topic of workforce well-being and human resources policies and practices related to ESG. The third section describes the methodology, explaining the data selection and treatment, and the research's limitations of time and scope. The fourth and fifth sections present the results obtained from data analysis and a discussion on the findings, followed by the conclusion that shows the understandings and opportunities arising from this research in light of the available literature.

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BRIEF THEORETICAL FRAMEWORK ON WORKFORCE WELL-BEING AND HUMAN RESOURCES POLICIES AND PRACTICES ALIGNED WITH ESG

Workforce well-being

There is no consensus in the literature on the characterization of workforce well-being. Some studies suggest that the issue is primarily related to health and safety and the satisfaction of people – who work better in environments where they find such qualities (Juniper, 2011). However, recent studies demonstrate the relevance of other factors, such as connection, integration, civility, and perception of justice (Abid, Ahmed, Elahi, & Ilyas, 2020).

In general, it demonstrates that organizational support directly impacts the well-being of employees, especially concerning their values (Paschoal, 2008).

Diversity and opportunity

The literature points out that the diffusion of diversity programs in human resources is related to legal issues and – mainly – to competitive advantages, such as increased creativity, innovation, performance, new consumer markets, and productivity gains (Mendes, 2005).

Once implemented, these programs end up recognizing and promoting the difference between people or groups as a positive value, working as an instrument of social integration, for the benefit of the democratization of opportunities for access to the labor market (Reith & Rachid, 2014).

However, studies show that most companies in Brazil have difficulties related to workforce well-being and social sustainability, especially regarding diversity (Kobayashi, Eweje, & Tappin, 2018).

Relationship between human resource management and the supply chain

Christopher (2005) presents the supply chain as a network of organizations with processes, activities, and information exchange that generate value to the final consumer through products and services.

For Ganeshan and Harrison (2002), the supply chain refers to a distribution network that transforms, develops, and transports products and services. Santos and Pereira (2020) distinguish value chain and supply chain, defining the first as a set of interconnected activities to generate perceived or added value to the consumer, whereas supply chain is a set of multiple organizations involved with flows of resources, information, and monetary goods, which manufacture and move products toward the consumer.

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The literature shows growing interest and connection between human resources and supply chain management. The human factor has a central role in negotiation, communication, collaboration, systemic understanding, and integration (Siqueira & Alcantara, 2020).

METHODOLOGY

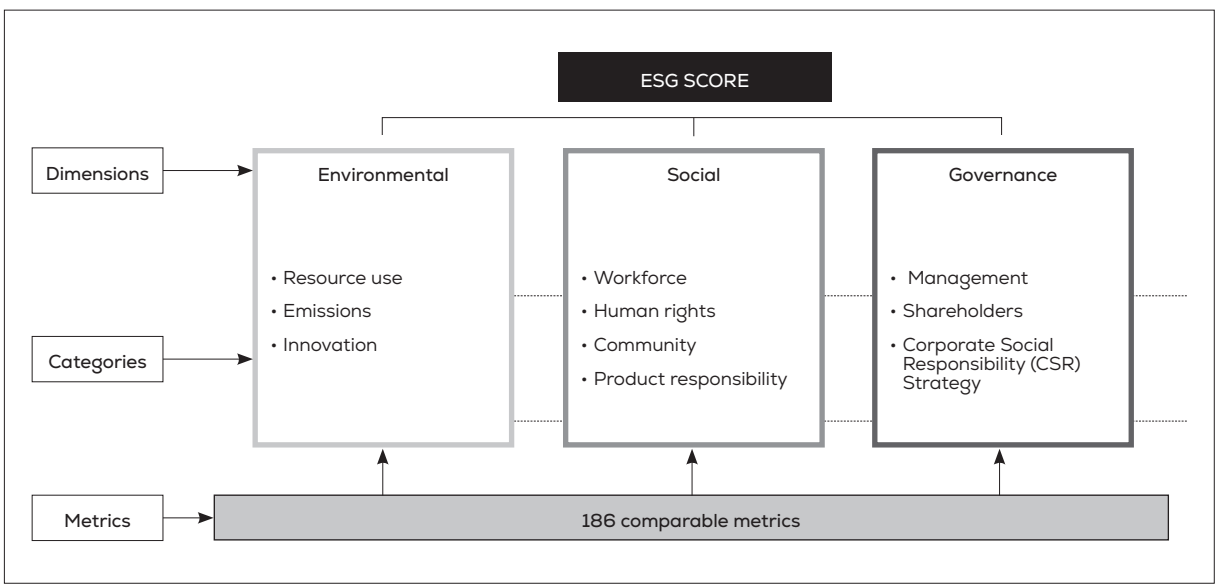
This study conducted a quantitative analysis of data on ESG policies and practices in Brazilian companies, considering the category workforce.

Refinitiv Lipper Fund ESG Scores: ESG ratings and metrics

Refinitiv Lipper Fund ESG Scores (Refinitiv ESG Scores, or Refinitiv) was used to assess company-level ESG ratings and their underlying criteria. This system was used because it has more data on Brazilian companies compared to other systems. It checks public information the companies report on the three ESG dimensions (environmental, social, governance), subdividing the content into three or four categories per dimension (comprising a total of ten categories). The social dimension emphasized in this research has four categories: (i) workforce; (ii) human rights; (iii) community; and (iv) product responsibility (Figure 1).

The Refinitiv system analyzes a total of 186 metrics, which translate into comparable data points, to process the score in each category and respective dimension through boolean questions considering, altogether, materiality, data availability, and relevance for each metric by industry.

Figure 1. Refinitiv System: score composed of three dimensions (ESG), subdivided into 10 categories, measured using 186 comparable boolean metrics



Source: Based on Lipper Research (2020)

The category workforce was evaluated with 11 out of the 186 metrics covering the ten categories. These metrics were distributed among three topics related to people management:

i. Health and safety – this topic assesses whether the company has (a) health and safety policy in the year analyzed; (b) health and safety policy focused on employees; (c) health and safety policy focused on the supply chain; (d) team focused on health and safety; (e) health and safety training for employees; (f) health and safety training for the supply chain; and (g) investment in health and safety improvements to the supply chain.

ii. Training and development – this topic assesses whether the company has (h) training and development policies; and (i) offers training and development on ESG-related practices through a third-party supplier.

iii. Diversity and opportunity – this topic evaluates whether the company has (j) Diversity and opportunity policies; and (k) internal targets related to Diversity and opportunity.

The Brazilian companies with information available in the Refinitiv system for the period between 2015 and 2019 were analyzed, corresponding to 106 organizations. This period was chosen because ESG practices have become more widespread in the investment industry since 2016, which means that many companies have only started to disclose ESG information in recent years. They are all publicly traded companies, listed or eligible for the main Brazilian sustainability indices, such as the Corporate Sustainability Index (ISE B3) and S&P/B3 Brazil ESG. Panel information was collected for the five-years, with a total of 406 observations (among the 106 companies).

Descriptive analysis

The sample profile considered the companies' sectors, the distribution of the observations regarding the ESG ratings, and the 11 metrics cited for the category workforce (also in relation to the ESG ratings). Additionally, Pearson's correlation analysis was performed on metrics and ratings.

Panel analysis: fixed-effects estimation model

A cross-sectional time series analysis was performed (with panel data), considering annual information for the five years from 2015 to 2019.

According to Crisci, D'Ambra, and Palleta (2014), fixed-effects models usually bring statistically consistent results for panel data. Recent research indicates that fixed-effect estimators are more appropriate and straightforward in analyzing panel data for corporate finance matters (Flannery

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& Hankins, 2013; Osterrieder, Palia, & Wu, 2020). Thus, a fixed-effect estimation model was adopted in the representativeness tests of the 11 analyzed metrics, considering the ESG ratings and the ESG for the social dimension (ESG_S).

The model adopted the general equation:

$$y_{it} = \alpha + \beta_1 x_{1\,it} + \beta_2 x_{2\,it} + \ldots + \beta_n x_{n\,it} + \eta_i + \varepsilon_{it} \quad (1)$$

where:

y_{it} = ESG rating for a company *i* in year *t*
x_{1it} = Metric 1 for a company *i* in year *t*
x_{2it} = Metric 2 for a company *i* in year *t*
[...]
$x_{n\,it}$ = Metric *n* for a company *i* in year *t*

For representativeness testing purposes, the ESG ratings (consolidated, considering the three dimensions, E, S, and G) and ESG_S (considering the rating only on the social dimension) were used as dependent variables (y_{it}).

Additionally, the ESG metrics used as independent variables ($x_{n\,it}$) referred to the 11 metrics from the Refinitiv system and related to the category workforce, explained in letters (a) to (k) of the section on Refinitiv Lipper Fund ESG Scores.

Limitation of time and scope

Among the many systems providing ESG data, the Refinitiv system was adopted. By 2020, around 70 companies were providing some sort of ESG rating, not counting investment banks, financial institutions, government organizations, and research organizations (Li & Polychronopoulos, 2020). Given the absence of a clear and normative definition of metrics, standards, and weights in ESG, other scores or indices could be investigated, potentially providing different insights or results.

Regarding the sample profile, the research included only publicly traded companies, most of them present in Brazil's main sustainability and ESG indices, which can be considered a benchmark in ESG indicators. Because the disclosure of information on ESG is not mandatory, the availability of information on ESG is biased. In an attempt to mitigate this bias, all the companies with detailed information included in the Refinitiv database for the analyzed period were selected.

Additionally, the study covered a period of only five years (from 2015 to 2019), noting that most companies are still adapting to the new demands imposed by the market in terms of ESG. This period may not be sufficient to find evidence of the relationships observed. In addition, the analyses presented show a past bias and do not incorporate future perspectives, projects, or regulations in implementation.

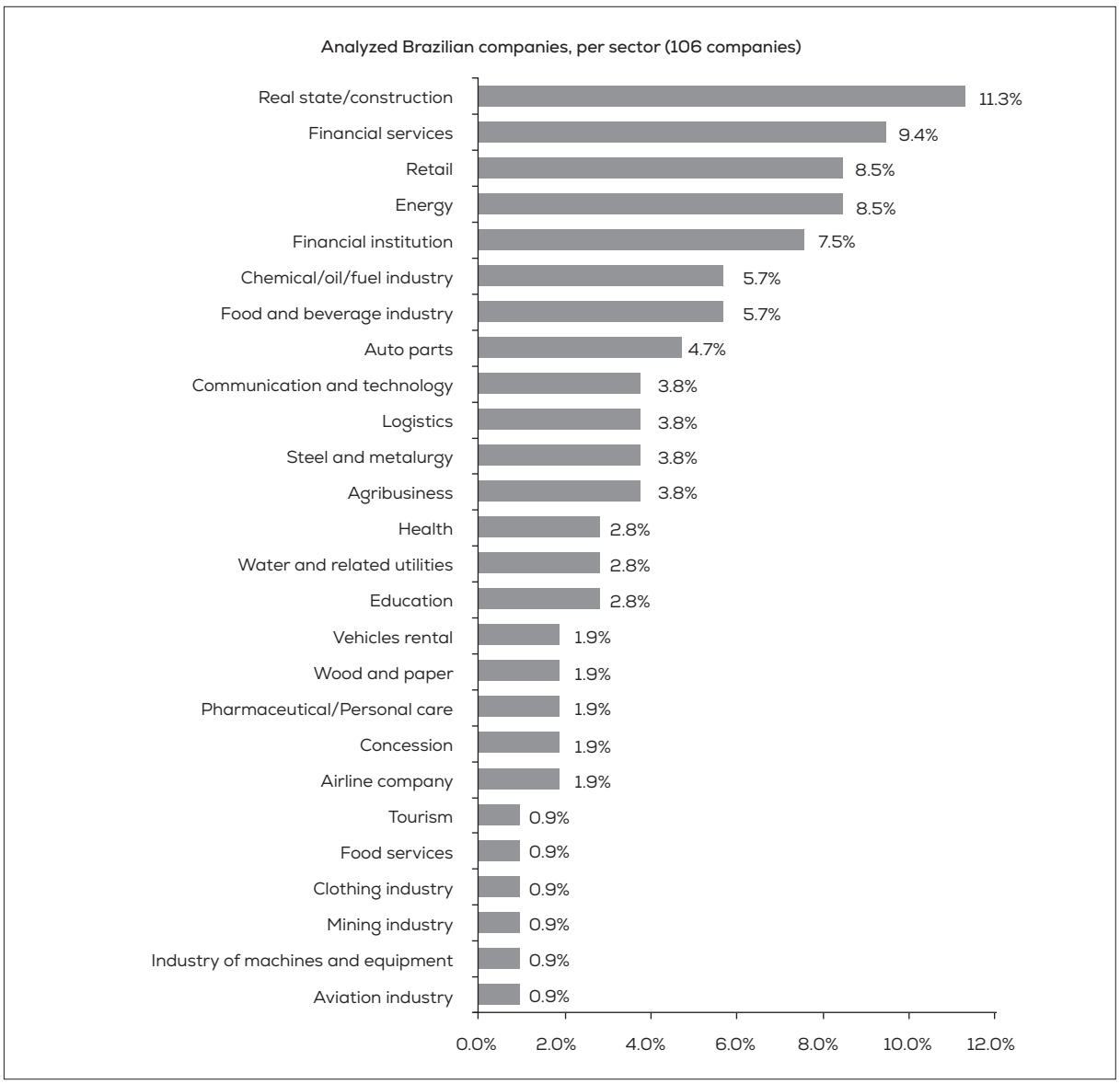
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RESULTS

Sample profile

Regarding the profile of the analyzed companies (Graph 1), it is observed that the segments are well diversified and distributed, with most companies (11.3%) coming from the real estate/construction sector. The following are the sectors of financial services (9.4%), retail (8.5%), energy (8.5%), financial institutions (7.5%), and chemical/oil/fuel industry (5.7%). Together, the representatives of these six sectors correspond to just over half of the companies in the sample (50.9%).

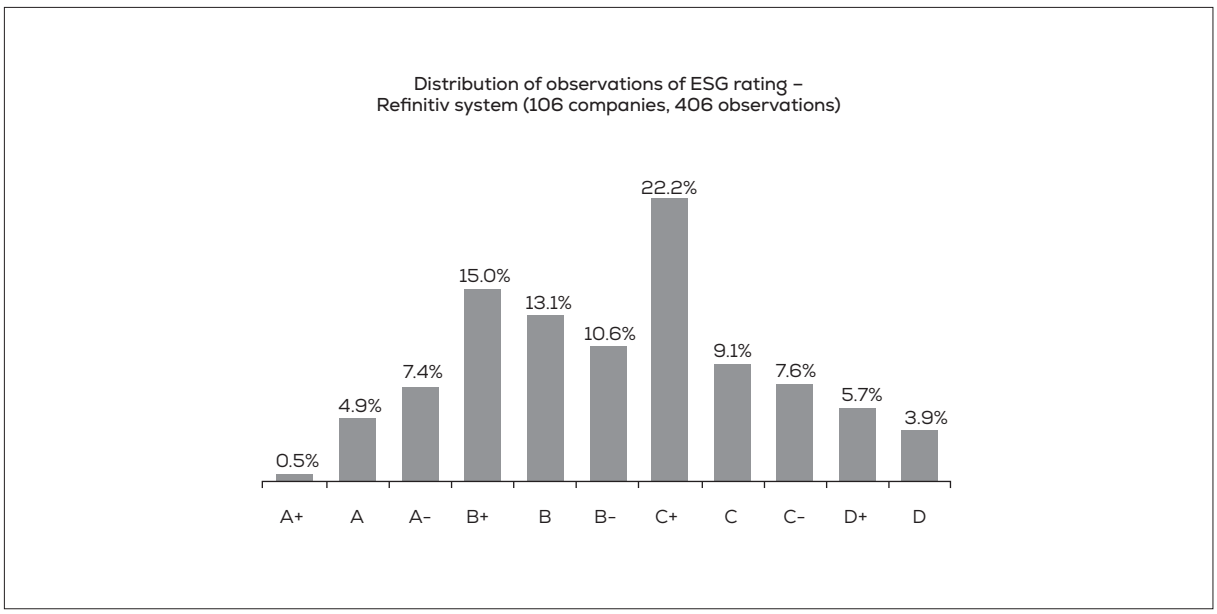
Graph 1. Breakdown of the 106 companies analyzed, by sector



Source: Based on data from the Refinitiv system and the Brazilian stock exchange (B3)

As for the distribution of the 406 observations regarding the ESG rating assigned by the Refinitiv system (Graph 2), the group mode is C+ (22.2%). The range from A+ to B+, which corresponds to the first four groups in terms of best practices, represents 27.8% of the sample, the first six groups (from A+ to B-) representing 51.5%, and the first seven groups (from A+ to C+) 73.6%, which can be roughly equated to the first, second, and third quartiles.

Graph 2. Breakdown of the 406 observations analyzed, by ESG rating according to the Refinitiv scores



Source: Based on data from the Refinitiv system

Analysis of the application of health and safety policies and practices

Regarding health and safety (Table 1), 100% of the companies with an ESG rating between A+ and B+ (the first four groups in terms of best practices, or 27.8% of the sample) have policies focused on employees. However, this percentage drops to between 45.0% and 66.7%, depending on the rating, regarding policies focused on the supply chain. When observing all companies, the average is only 29.1% for the supply chain, compared to 78.8% for employees.

Health and safety training focused on employees is provided by 72.2% of the companies and by between 88.5% and 100% of companies classified in the first quartile. Also, 100% of companies classified as A+ and between 78.7% and 90.0% of companies classified as A to B+ have a team focused on health and safety practices (only 8.7% of companies classified as D+ have such a team).

However, health and safety training focused on the supply chain ranged from zero to 30.0% in the highest segments (from A+ to B+), corresponding to 13.1% of the total companies analyzed – significantly lower than the percentage of companies observed for training focused

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on employees (72.2%). In segments B- to D (which corresponds to 59.1% of the sample), the percentage of companies that provide training to stakeholders varies between zero and 8.9%, depending on the category, far below the percentages observed for training focused on employees.

Additionally, investments in health and safety improvements to the supply chain proved to be even scarcer: only 2.5% in the general average, with occasional presences only in the A- and B+ segments.

Table 1. Percentage of companies that apply health and safety policies and practices, by ESG rating (from "A+" to "D")

ESG Rating	Health and safety policy	Health and safety policy focused on employees	Health and safety policy focused on the supply chain	Team focused on health and safety	Health and safety training for employees	Health and safety training for the supply chain	Investment in health and safety improvements to the supply chain
A+	100.0	100.0	50.0	100.0	100.0	-	-
A	100.0	100.0	45.0	90.0	95.0	25.0	-
A-	100.0	100.0	66.7	80.0	100.0	30.0	6.7
B+	100.0	100.0	49.2	78.7	88.5	27.9	13.1
B	86.8	84.9	20.8	60.4	83.0	15.1	-
B-	93.0	88.4	25.6	67.4	90.7	7.0	-
C+	91.1	90.0	28.9	67.8	85.6	8.9	-
C	51.4	46.0	5.4	21.6	32.4	-	-
C-	48.4	48.4	22.6	25.8	29.0	6.5	-
D+	52.2	47.8	4.4	8.7	30.4	4.4	-
D	-	-	-	-	-	-	-
Total	80.5	78.8	29.1	57.1	72.2	13.1	2.5

Source: Based on data from the Refinitiv system

Analysis of the application of training and development policies and practices

Among companies with ESG ratings between A+ and B+ (approximately the first quartile), 100% have training and development policies focusing on ESG (Table 2). This percentage corresponds to 82.5% when considering the complete sample (reaching 17.4% at level D+ and zero at level D).

Comparatively, only 26.9% of the companies use a third-party supplier to offer training and development on ESG-related practices. There is a substantial disparity between those with the

highest ESG ratings (100% for companies considered A+) and the lowest (3.2% for companies considered C- and 4.4% for D+).

Table 2. Percentage of companies applying training and development policies and practices, per ESG rating (from "A+" to "D")

ESG Rating	Training and development policies	Training and development on ESG-related practices using a third-party supplier
A+	100.0	100.0
A	100.0	75.0
A-	100.0	73.3
B+	100.0	50.8
B	96.2	11.3
B-	97.7	18.6
C+	92.2	22.2
C	67.6	8.1
C-	54.8	3.2
D+	17.4	4.4
D	-	-
Total	82.5	26.9

Source: Based on data from the Refinitiv system

Analysis of the application of diversity and opportunity policies and practices

Regarding the issue of diversity and opportunity (Table 3), it can be observed that 100% of the companies with ESG ratings between A+ and B+ (approximately the first quartile) have policies related to the topic. For the entire sample, this percentage corresponds to 77.6% (reaching 43.5% at ESG level D+ and zero at D).

However, the practice of targeting diversity and opportunity does not follow the same pace observed for having policies related to the subject: in companies with an ESG rate of A+, the percentage reaches 50% (or half of the companies that have diversity policies also have internal targets related to diversity and opportunity); reducing the frequency to 20% at level A, 10.0% at A-, and 16.4% at B+. In the full sample, the percentage is only 6.2%. This practice is not observed in companies with lower ESG ratings (from C to D, which corresponds approximately to the last quartile).

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Table 3. Percentage of companies applying diversity and opportunity policies and practices, per ESG rating (from "A+" to "D")

ESG Rating	Diversity and opportunity policies	Internal targets related to diversity and opportunity
A+	100.0	50.0
A	100.0	20.0
A-	100.0	10.0
B+	100.0	16.4
B	94.3	1.9
B-	69.8	2.3
C+	80.0	5.6
C	48.7	-
C-	71.0	-
D+	43.5	-
D	-	-
Total	77.6	6.2

Source: Based on data from the Refinitiv system

Pearson's Correlation Analysis

Table 4 shows the correlation of variables for the analyzed dataset.

Table 4. Correlation between selected variables, considering 406 observations

	ESG Rating	Health and safety policy (a)	Health and safety policy focused on employees (b)	Health and safety policy focused on the supply chain (c)	Team focused on health and safety (d)	Health and safety training for employees (e)	Health and safety training for the supply chain (f)	Investment in health and safety improvements to the supply chain (g)	Training and development policies (h)	Training and development on ESG-related practices using a third-party supplier (i)	Diversity and opportunity policies (j)	Internal targets related to diversity and opportunity (k)
ESG Rating	1											
(a)	0.5596*	1										
(b)	0.5675*	0.9481*	1									
(c)	0.3462*	0.3146*	0.2787*	1								
(d)	0.5252*	0.5676*	0.5986*	0.1816*	1							
(e)	0.5864*	0.7915*	0.7810*	0.3370*	0.6060*	1						
(f)	0.2692*	0.1905*	0.2009*	0.5087*	0.2617*	0.2406*	1					
(g)	0.1584*	0.0781	0.0824	0.2483*	-0.055	0.0987*	0.2214*	1				
(h)	0.6168*	0.5927*	0.6183*	0.2233*	0.4923*	0.5966*	0.1784*	0.0732	1			
(i)	0.4761*	0.2837*	0.2869*	0.3589*	0.2663*	0.3638*	0.4746*	0.0472	0.2643*	1		
(j)	0.5438*	0.3475*	0.3429*	0.2400*	0.3103*	0.3515*	0.1732*	0.0854	0.3123*	0.1390*	1	
(k)	0.2405*	0.1259*	0.1328*	0.4002*	0.0976*	0.1591*	0.2961*	0.3559*	0.1179*	0.1916*	0.1377*	1

(*) 5% significance level

Source: Based on data from the Refinitiv system

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In this context::

- most of the correlations are statistically significant at the 5% significance level, which, in principle, indicates that the sample size is reasonable for the analysis (Figueiredo & Silva, 2009);

- all correlations between variables are positive (with the exception of the relationship between the existence of a health and safety team (d) and health and safety improvements for the supply chain (g), which, however, is not statistically relevant);

- strong correlations (above 0.70) were found only between: (i) the existence of a health and safety policy and a health and safety policy focused on employees (0.95); (ii) the existence of a health and safety policy and health and safety training for employees (0.79); and (iii) the existence of a health and safety policy focused on employees and health and safety training for employees (0.78); and

- the other correlations found between the variables ranged from median to weak – potentially due to non-linearity between the variables or discontinuity effects in the data distribution (Hole, 2014).

Panel analysis: fixed-effects estimation model

Table 5 shows the results of the analysis:

Table 5. Results of panel estimation considering ESG and ESG_S as dependent variables and category workforce metrics as independent variables

	ESG		ESG_S	
(a) Health and safety policy	-0.377		-0.147	
	[-1.10]		[-0.24]	
(b) Health and safety policy focused on employees	0.480		0.372	
	[1.56]		[0.61]	
(c) Health and safety policy focused on the supply chain	-0.150		-0.324	
	[-0.5]		[-0.81]	
(d) Team focused on health and safety	0.499	***	0.873	***
	[3.28]		[3.40]	

(Continue)

Table 5. Results of panel estimation considering ESG and ESG_S as dependent variables and category workforce metrics as independent variables

(Concludes)

	ESG		ESG_S	
(e) Health and safety training for employees	0.040		-0.291	
	[0.2]		[-1.01]	
(f) Health and safety training for the supply chain	0.192		0.318	
	[0.58]		[0.80]	
(g) Investment in health and safety improvements to the supply chain	0.457	*	0.463	*
	[1.76]		[1.67]	
(h) Training and development policies	1.086	***	1.332	***
	[4.08]		[3.27]	
(i) Training and development on ESG-related practices using a third-party supplier	0.166		0.284	
	[0.76]		[0.96]	
(j) Diversity and opportunity policies	0.508	***	0.833	***
	[3.08]		[3.54]	
(k) Internal targets related to Diversity and opportunity	0.312		0.339	
	[1.09]		[1.23]	
Constant	4.322	***	4.068	***
	[17.53]		[11.72]	
Number of observations	406		406	
Groups	106		106	
F stat	6.31		5.360	
Prob > F	0.0000		0.0000	
R2	0.576		0.522	
Rho	0.886		0.816	

Note: Each column represents a regression. Letters were used as attributed for letters (a) to (k) of the section on the Refinitiv Lipper Fund ESG Scores system. Regressions were estimated using fixed effects. References (*), (**), and (***) indicate significance level of 10%, 5%, and 1%, respectively. The t statistics are shown in brackets. The F, R3, and Rho statistics are reported as part of the diagnostic.

Source: Based on data from the Refinitiv system

- Statistically representative coefficients were found for:
  - existence of a team focused on health and safety (d). This item appears to be more relevant to the ESG_S rating than to the ESG;
  - health and safety improvements for the supply chain (g);
  - training and development policy (h). This metric proves to be quite representative in the assignment of both the ESG and ESG_S ratings; and
  - the diversity and opportunity policy (j), also apparently contributing substantially.

No statistically significant relationships were found for the other metrics.

DISCUSSION

This study investigated: (i) which human resources policies and practices are most commonly used among Brazilian companies adopting the ESG concept; and (ii) which contributes to achieving a better ESG rating.

Regarding the sample profile, there is no way to infer whether the highest percentage of Brazilian companies in the sectors of real estate/construction, financial services, financial institutions, retail, energy, chemical/oil/fuel industry is in fact related to these sectors' interest regarding the implementation and disclosure of ESG information, or if the observed profile corresponds to a market characteristic of the listed companies in the country. At the international level, a study conducted by the KPMG (2020) with 52 countries identified sectors that proportionally presented the highest number of sustainability reports: (i) technology, media, and telecommunications; (ii) mining; (iii) oil and gas; (iv) chemical industry; and (v) pulp and paper industry.

When considering the broad spectrum of (i) market sectors in which the companies studied operate and (ii) the distribution of observations in terms of ESG rating, the diversity of the sample and the wide range of companies and sectors interested in disclosing information related to ESG in Brazil stand out, at the different levels of maturity regarding sustainable policies and practices.

Regarding the study's first objective, the descriptive analysis of the specified metrics showed that:

- the policies related to the topics examined (health and safety, training and development, and diversity and opportunity), when focused on employees, are already shown as market practices for all companies with high ESG ratings, reaching median proportions in companies with low ESG ratings;

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- however, practical and tangible applications related to the topics seem, at first, to be less frequent, such as (i) the existence of a team focused on health and safety; (ii) the existence of ESG training carried out by third-party specialists in the field; or (iii) the existence of internal targets regarding diversity and opportunity.

In response to the second question about the policies and practices that could contribute to a better ESG rating, and based on the analysis above, there appear to be opportunities in implementing:

i. teams focused on health and safety. The literature points out that the availability of resources focused on health and safety at work contributes to the success of actions and health promotion in companies (Chaves, Santana, Leão, Santana, & Lacerda, 2009);
ii. health and safety improvements to the supply chain. As observed, investments in effective improvements in the supply chain were still scarce (average of only 2.5%), although it is suggested that such practices can have positive effects in overcoming barriers to integration (Abreu , 2016).
iii. training and development policy. In general, it is related to organizational strategy and is seen in the literature as a competitive advantage for companies that implement it (Freitas, 2012).
iv. diversity and opportunity policy. According to the literature, such policies serve the debate on diversity management in Brazilian companies – which differs from practice, where advances have been slow (Neves, 2020; Saraiva & Irigaray, 2009). The theme has been associated with market differentiation in companies (Neves, 2020).

CONCLUSION

Discussions regarding human resource management indicators in line with sustainability practices have only gained strength and traction in recent years – many professionals are still adapting to the application and use of such concepts (Freitas et al., 2013). However, this interaction can bring cross-sectional benefits to organizations and their stakeholders, contributing to society's sustainable development (Mendes, 2013).

This study sought to identify which human resources policies and practices are most commonly used among Brazilian companies that adopt the ESG concept, observing the elements of health and safety, training and development, and diversity and opportunity.

In line with the results found by Skousen and Sun (2019), our study also showed a significant positive relationship between the metrics related to the category workforce and the ESG ratings or the ESG ratings specifically in the social dimension.

The analyzed data show that formal policies on people management issues may have emerged in response to stakeholders' demands, guided by a greater degree of employee awareness and well-

being. However, there still seems to be a relevant way for the practices arising from such models to be effectively incorporated into management. The results of this study are in line with Vasconcelos (2004), who points out that the practical implementation of changes in people management does not occur as quickly as the change of discourse, and the transition period and the distance between theory and practice can lead to negative consequences for productivity.

Additionally, our results show the relationship with the supply chain is distant, both in the existence of policies (health and safety, for example) and in the application of practices (such as training or implementation of improvements), although recent literature demonstrates a growing interest in the interconnection between the principles and practices of human resource management and supply chain management (Siqueira & Alcantara, 2020). In this sense, Farndale, Paauwe, and Boselie (2010) believe that the internal human resources function needs appropriate and formal governance principles to maximize practices related to the supply chain, suggesting that informal mechanisms are generally flawed and ineffective. Additionally, Menon (2012) identified that certain policies and practices in human resources (including training and development) are positively related to better integration of the supply chain and employee well-being.

Regarding the metrics that, in our view, could contribute to a better ESG rating, we identified opportunities for (i) implementation of teams focused on health and safety; (ii) health and safety improvements to the supply chain; (iii) implementation of training and development policy; and (iv) implementation of a policy related to diversity and opportunity. Undoubtedly, such topics are widely debated and disseminated in the literature as a possibility of improving performance in several aspects (Abreu, 2016; Chaves et al., 2009; Freitas, 2012; Neves, 2020; Timm & Gray, 2017). However, Kotsantonis and Serafeim (2019) state that the inconsistency of formats, periodicity, and measurement of data reported in ESG can lead to significantly different results, whether this difference is observed between companies of the same group for a given rating or between different ratings in relation to the same company – so that the metrics found may suggest opportunities based on the Refinitiv system but are not necessarily consistent with other ESG ratings or scores.

Finally, based on a study carried out in Italy, Clementino and Perkins (2020) suggest there is no single answer to the evaluation of ESG ratings. The adjustments to comply with certain metrics are heterogeneous and adaptable according to management's perception of how much the internalization of suggested policies and practices could add in terms of value to the business.

Contributions to academia and business practice

This research aims to fill the gap in the academic literature related to (i) social aspects in ESG, seen marginally in Brazil compared to the environmental and financial dimensions (Lourenço & Carvalho, 2013); and (ii) integration between the views on people management and sustainability (Freitas et al., 2013). In this sense, in line with international results (Skousen & Sun, 2019), a significant positive relationship was identified between metrics related to the category workforce in Brazil and ESG ratings and ESG ratings specific for the social dimension.

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Regarding business practice, this study is a tool for companies, human resources professionals, and people managers and provides a better view of the current market and potential opportunities for implementing policies and practices compared to benchmarks – which proves useful for decision making and innovation (Jiang et al., 2021). In this case, metrics related to health and safety, training and development, diversity and opportunity, and policies and practices related to the supply chain were identified as drivers.

Additionally, given that investors have recently started to observe and include ESG-related metrics in their investment analyses (Kotsantonis & Serafeim, 2020), it is expected that this study will help capital market agents such as financial analysts, portfolio managers, and individual investors who will be able to observe certain metrics to attribute value when conducting their assessments.

Limitations and directions for future investigation

In terms of approach, this study was limited to: (i) the number of companies analyzed; (ii) the Refinitiv system; and (iii) the metrics evaluated. Considering that ESG is still a heterogeneous subject and that different rating providers can lead to significantly different results (Li & Polychronopoulos, 2020), we suggest carrying out new analyses related to the social dimension and the category workplace under the perspective of other information systems in ESG.

Additionally, as noted in the section about the limitations on time and scope, this study covered five years (from 2015 to 2019), with most companies still adapting to the new demands imposed by the market from a voluntary and poorly regulated perspective. The ESG concept is still converging and consolidating in global markets, and its regulation is in process in Brazil – especially in publicly traded companies. In this sense, the forecast for the implementation of ESG information disclosure standards in the "practice or explain" model, from 2023 – according to the Brazilian Securities and Exchange Comission (CVM) Resolution 59, of December 22, 2021 (2021) – should increase the availability of information published and therefore the field of academic research in the coming years. Also, this creates space and demand for more professionals working in the area of people management in line with ESG.

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AUTHOR'S CONTRIBUTION

Melissa Velasco Schleich worked on the conceptualization and theoretical-methodological approach, theoretical review, data collection, data analysis, and finally, the writing and final review of the manuscript.

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ROLE OF HUMAN RESOURCES FOR SME SUSTAINABILITY: WHAT THE LITERATURE SAYS AND WHAT WE CAN EXPECT FOR THE FUTURE

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THE IMPORTANCE OF SUSTAINABILITY PRACTICES IN SMES

There is vast literature on sustainability practices in large and consolidated companies (Henry, Bauwens, Hekkert, & Kirchherr, 2020). However, studies on this issue focused on small and medium-sized enterprises are scarce (SMEs), even though these companies are economically relevant. In the European Union, for example, SMEs are 99.8% of companies, represent 66.6% of jobs (Comissão Europeia, 2019), and are responsible for 64% of industrial pollution in the region (Constantinos et al., 2010), which shows the importance of sustainability practices among these organizations. According to York and Venkataraman (2010), entrepreneurs can play a role in solving environmental problems by creating environmentally sustainable products, services, and new companies or models that do what established firms are not doing and are not able to do. When considering moving toward a circular economy, it is crucial that SMEs – which comprise 90% of all businesses worldwide (Organização para a Cooperação e Desenvolvimento Econômico [OECD], 2019) – enter a transition to circular business models. The adoption of such models may offer advantages such as niche opportunities (reaching customers likely to buy sustainable products and services), prestige, cost reduction, profitability, protection and recovery of the local environment, and the business' sustainability (Ormazabal, Prieto-sandoval, Jaca, & Santos, 2016).

However, the structure of SMEs poses huge barriers to the implementation of sustainability practices. Among these barriers are the lack of interest from suppliers, lack of demand and capital, the increase in costs, the absence of government support, scarcity of technical know-how, lack of information, and the challenges of changing the company's environmental culture (Rizos et al., 2016). A vital aspect to overcome such challenges is counting on well-prepared human resources, which is something equally challenging in the case of SMEs.

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Thus, the evidence that prepared personnel is crucial for the transition to circular sustainability highlights the challenge of adopting green human resources management.

The role of green human resources management

Sustainability practices imply that people think green and outside the box, especially when working in SMEs. In a world increasingly aware of environmental sustainability issues, the daily role of each employee is essential, partilcularly in companies primarily based on circular entrepreneurs. Human resources management (HRM) is vital to help people think differently since companies play a central role in promoting their sense of green responsibility and initiative. Thus, organizations must be prepared to fulfill this role by adopting green human resources management (GHRM). The GHRM consists of implementing sustainable policies and practices to raise awareness of the negative impact of pollution and energy consumption on the environment and, consequently, on our lifestyle.

This "green" concept stimulates the transformation of the companies and their employees' mindset, fostering an internal culture based on more efficient practices regarding the use of resources, sensitivity to the environment, and social responsibility.

In this sense, GHRM practices help increase employee performance and commitment to improving environmental efficiency, involving changes of the organization's culture, structure, strategies, and policies toward green management (Mandip, 2012). The transition to this management requires a circular entrepreneurial culture supported by the involvement and rooting of all employees – circular intrapreneurship. In other words, changing behavior is crucial to achieving sustainability for SMEs, so these companies mark their difference from others. In this way, they may leave behind the market's "Pandora's box" full of environmentally unaware and harmful businesses and offer society a model where the organization's human resources face their work and role with a missionary attitude, abandoning individual goals to pursue collective objectives – collective entrepreneurship.

Although an emerging topic, there are only a few studies examining the impact of GHRM on the sustainability of SMEs.

THE PAST AND PRESENT OF KNOWLEDGE ON SUSTAINABILITY IN SMES

Thematic analysis on SMEs and their sustainability practices has focused on four areas of research: (1) instruments to implement sustainability; (2) the reasons for implementing these instruments in SMEs; (3) barriers to implementing sustainability practices in SMEs; and (4) facilitating factors for the implementation of these practices (Johnson & Schaltegger, 2016).

Boiral, Baron, and Gunnlaugson (2014) highlight that "post-conventional" leaders are essential to SMEs' environmental commitment. When committed, these organizations pressure suppliers

and other stakeholders to take the same path. Thus, the entrepreneurial orientation toward sustainability positively influences network practices, whether in the context of emerging or planned strategies. Among these strategies, human resources stand out, as they influence SMEs toward sustainability. Zhang (2008) considered that one of the crucial factors leading SMEs to adopt environmental practices is the involvement of all employees. Masurel (2007) also mentioned that working conditions are the most important motivation for SMEs to invest in ecological measures.

On the other hand, organizational culture must support knowledge management and be guided by the owners' and managers' personal and ethical values and moral and social responsibilities. These values drive environmental responsibility in SMEs. According to Font, Garay, and Jones (2016), the habit and lifestyles of SMEs' owners/managers affect sustainability activities in the organizations. SME managers' lifestyle and attitude showing commitment to a pro-environmental agenda are essential for the organization's good performance in the area (Koe, Omar, & Sa'ari, 2015).

The "commitment of top management" is the most critical driver for the successful implementation of ecological practices. The top managers' social responsibility and ethical concerns may lead to environmental practices (Thanki & Thakkar, 2018).

This line of thinking is directed toward green/circular leadership focused on sustainability to promote the full adherence of human resources to these practices. In this scenario, circular entrepreneurship or the process of exploring opportunities in the circular economy domain (Zucchela & Urban, 2019) represents the transition to a circular economy (Heshmati, 2017). In this context, future studies are urgently needed to help managers and entrepreneurs to understand better the value created and distributed during the transformation process occurring in the circular economy, in line with the optimized alignment of scarce resources and management capabilities for this economy, as well as elements of the context and their influence on circular business models.

This means that managers/owners/leaders must think outside the box today and in the future, as human resources are the base of the pyramid to achieve environmental sustainability. However, the economic and social dimensions must also think differently, given that it is necessary to have a holistic view of these three pillars within the scope of the circular economy.

In retrospect, the theoretical development of the circular economy concept was initiated by Boulding (1966), who introduced the concept of the cyclical system, in which finite land resources were recycled and their value optimized. Continuing the general premise of this system, Pearce and Turner (1989) addressed the concept of a circular economy, arguing that the environment provides amenities and systems to support life, deposit waste, and offer a resource base for the economy. Systems theory also suggests that the characteristics of the parts are understood as a dynamic whole, and it is important that there is connectivity between them. The integration of these two concepts suggests that connectivity is crucial for the circular economy to take advantage of exogenous and endogenous synergies, the collaborative process between all parties, and finally, networking, for individual and collective benefits, to contribute to environmental quality and economic prosperity. In these circumstances, the introduction of the concept of green human capital and the like in SMEs meets this circularity, which is important for their success and positive performance and generates inimitable competitive advantages. This economy

proposes recycling waste and its reuse, as substitutes for natural resources to improve future needs and make sustainability more likely (Sauvé, Bernard, & Sloan, 2016). Thus, the practical application of this theory allows for industry by-products to become primary raw materials for others, sharing resources, and consequently, there is an optimization of resources and their value (Smol, Kulczycka, & Avdiushchenko, 2017). Therefore, the model advocated by this theory promotes resource resilience to ensure healthy competition and maximum efficiency in using available resources (Geng & Doberstein, 2008). If we associate intangible resources with the resilience of tangible resources, such as human resources, knowledge, and talent, it is possible to promote the double optimization of resources leveraged by the green management and leadership of human resources, which provides the reach of emerging sustainability.

THE FUTURE ROLE OF SMES IN SUSTAINABILITY: FINDING THE LIGHT AT THE END OF THE TUNNEL

People are the key actors in implementing sustainable practices, an issue even more significant when talking about SMEs. Thus, future investigations should perceive the role of the organization's managers/owners/entrepreneurs in conducting this process, so there are both theoretical and practical consequences.

Consequences for future research

Given the substantial deficiencies in the implementation of sustainability practices, it is worth asking whether the literature on sustainability management has not been too idealistic (Dentchev, 2009) to the detriment of the instrumental part. Thus, future studies could adopt other theoretical frameworks in addition to stakeholder theories, such as network theory, social capital theory, absorptive capacity theory, and dynamic capabilities theory. These approaches allow circular entrepreneurship, circular intrapreneurship, and GHRM to be understood in-depth and show the essential drivers necessary for these practices to be successfully implemented in SMEs. Additionally, this understanding will be synergistic to motivate employees to adopt an ecological attitude.

In these circumstances, the future of research involves studying the so-called SMEs that adhered to the green management and leadership of human resources, supported by circular entrepreneurship and intrapreneurship, but mainly by developing circular business models that include this new green vision for human resources.

Consequences for management

In this context, the development of a sustainability strategy can be a necessary first step toward its implementation in the management of SMEs. These strategies generally reveal the leaders' commitment to addressing sustainability issues – circular leaders – that can be incorporated

into the company's core business. These leaders must seek to involve employees in their projects and challenges and consider them part of a team where the leader stands as a member, side by side, assuming the responsibilities and addressing the problems together, generating missionary human capital. This involvement, sharing of responsibilities, and knowledge among all SME employees is an undeniable driver for these small companies to increase their contribution to sustainability. This means that the future of SMEs involves the inclusion of GHRM to reduce the ecological footprint.

On the other hand, due to the scarcity of resources in SMEs, the implementation of sustainability requires networking, where cooperation with other companies and/or institutions is an appropriate mechanism. In this sense, it is necessary to understand the processes of inter-organizational relationships involving SMEs to achieve sustainability, paying special attention to the emergence of the circular economy.

Cooperation and networking between SMEs and stakeholders is an effective way to support environmental innovation. Cooperation with other companies in the same geographic area can help achieve competitive advantages and transfer knowledge and skills of human resources from partner companies/institutions. Collins, Lawrence, Pavlovich, and Ryan (2007) compare the adoption of sustainability practices between members and non-members of a sustainable business network, in which networking involving the sharing of human resources was a means to raise awareness of all members of sustainability issues and practices in SMEs. Furthermore, membership in a network appears to be more positively related to stronger adoption of sustainability practices for SMEs than for large companies, suggesting that membership in a network may have a stronger impact on organizational learning in the case of SMEs.

Here, too, theories of motivation, careers, conflicts associated with human resources must play a leading role in the green leadership of this type of resources because a motivated and appreciated employee will commit to the company and do everything to contribute to its success. Of course, this represents an arduous and complex challenge for SMEs, given their scarce human resources. However, it is known that a highly motivated individual involved in their company's projects, who feels part of the team and not a mere collaborator, increases productivity and knowledge exponentially. It is still important that human resources are offered continuous training, as the maintenance of sustainability increasingly requires new knowledge, which must be shared and disseminated in the business fabric.

From the above, it can be seen that human resources play a fundamental role in business development and that sustainability has finally entered the strategies of companies that want to grow and remain competitive in the long term. In this sense, the GMHR is responsible for creating a culture of sustainability within companies, promoting actions that reduce environmental impacts, and contributing to a more sustainable society. Now the question arises of how these resources are essential contributors to the desired sustainability, also considering the circular economy that reduces the ecological footprint, which, in turn, is a consequence of actions people take in the organizations. In other words, the management of SMEs must be urgently characterized by a sustainable and green organizational culture, in which human resources adopt best ecological practices, inside and outside the companies.

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Mário Franco | Margarida Rodrigues

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Mário José Baptista Franco e Maria Margarida Mendes Rodrigues worked on the conceptualization theoretical review, writing and final revision of the manuscript.

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SUSTAINABILITY AND THE ROLE OF HRM

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Sustainability is not a new subject. Both society and business are increasingly becoming aware of the importance of a sustainable development "that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p. 8). However, managers still need to comprehend how to deal with the challenges of achieving sustainability (Clarke & Clegg, 2000).

Business performance includes concerns for a triple bottom line: economic, environmental, and social, to tackle these challenges. This triple bottom line involves an increased corporation focus on engaging in corporate sustainability and corporate social responsibility. Furthermore, it is generally accepted that companies may take advantage of incorporating responsibility and sustainability principles and practices into their strategies and core business processes (Bonini & Swartz, 2014).

Human resource management may play an important role in searching for this triple balance and contributing to corporate sustainability and social responsibility (Wilkinson, 2000). In this article, we discuss the role of HRM in the search for corporate sustainability and corporate social responsibility and highlight the Respect-Openness-Continuity (ROC) model proposed by Prins, Beirendonck, Vos, and Segers (2014) to address the different challenges of HRM.

THE ROLE OF HUMAN RESOURCE MANAGEMENT

The sustainability paradigm may have the power to transform the purpose of HRM from a single economic purpose to multiple purposes. There are several perspectives of HRM associated with sustainability issues in the literature, namely Socially Responsible HRM, Green HRM, among others (Aust, Matthews, & Muller-Camen, 2020). Furthermore, Sustainable HRM is closely related to corporate social responsibility initiatives. However, according to Stahl, Brewster, Collings, and Hajro (2020), HRM has not taken ownership of social responsibility issues, and is uncomfortable with how to approach these concerns. Additionally, HRM is more likely to offer operational support in executing and implementing internal social responsibility initiatives rather than strategic input in developing a corporate social responsibility strategy (Sarvaiya, Eweje, & Arrowsmith, 2018).

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Bonner and Friedman (2013) also found that HRM does not play a key role within organizations of corporate social responsibility decision making; the key influencers are members of the board of directors, followed by the legal, public relations, sales, and marketing departments. Additionally, according to Deloitte (2021) millennials and Gen Zs want businesses to shift its purpose, focus more on people (employees, customers, and society) and less on profits. 62% of the respondents agree that businesses "have no ambition beyond wanting to make money" (p. 47).

Stahl et al. (2020) analyze why HRM fails to be more involved in sustainability and corporate social responsibility initiatives. One of the main factors is the difficulty of the HR function in playing a strategic role in organizations, as has been widely documented for a long time (Becker, Huselid, & Ulrich, 2001; Lawler, 2017). Another reason has to do with the extent to which sustainability initiatives are merely symbolic and self-serving issues in organizations or, on the contrary, are normative and substantive endeavors. The former involves an ad-hoc approach and greenwashing rhetoric, mainly driven by cause marketing motivations, which does not require high levels of HRM involvement. The latter comprises an authentic commitment to addressing societal needs and an impactful approach, which in this case requires a high HRM involvement, "such as attempts to improve working conditions along the supply chain, efforts to reduce the carbon footprint, or corporate volunteering and service assignments" (Stahl et al., 2020, p. 4).

Nevertheless, according to Beer, Boselie, and Brewster (2015), HRM has a responsibility for the panorama presented above. The authors argue that, over the past 30 years, HRM has sought to become successful by developing a narrow focus on economic performance. In order to persuade the board of directors, human resource managers struggled to become business partners, seeking to demonstrate the profitability (ROI) of their interventions, which became one of their main motives. HRM has somehow "ignored its role in building corporate sustainability and corporate social responsibility capabilities and balancing the interests of different parties within the organization" (Stahl, 2020, p. 4). Beer et al. (2015) argue that HRM must return to its roots, namely to the "Harvard model" (Beer, Spector, Lawrence, Mills, & Walton, 1984), by balancing the interests of multiple stakeholders. Pfeffer (2016) claims that HRM needs to consider other variables beyond performance, such as psychological and physical health and societal welfare According to Wilkinson (2000) for true corporate sustainability, employees must take a central stage in the workplace by being recognized, valued and promoted, preventing the exodus of bright and enthusiastic people.

Sustainability in human resource management

The sustainability debate involves challenges and changes in many organizational domains, which are impossible to achieve without developing the necessary technical and administrative skills, as well as values and attitudes with a clear and long-term focus (Dunphy, Beneveniste, Griffiths, & Sutton, 2000). The Respect–Openness–Continuity model (ROC) deals with many issues that

organizations should consider when pursuing sustainable HRM (Prins et al., 2014). "Respect" for different stakeholders is a basic assumption, and the internal stakeholder, the employee, is often overlooked, as opposed to what happens to external stakeholders (Brunton, Eweje, & Taskin, 2017). In strategic HRM, this dimension is in line with an inside-out perspective brought by the resource-based view (RBV) (Barney, 1991). "Openness" is related with environmental awareness, which is in line with an outside-in perspective on HRM, based on the strategic fit perspective where the main premise relies on the HRM role in achieving business outcomes (Prins et al., 2014). Finally, "Continuity" involves a long-term approach, both in terms of economic and societal sustainability levels as well as in what concerns individual employability level. Continuity at all levels demand employees equipped with the skills to nurture innovation, manage risk, transform the economic systems within which they operate, and deliver on broader societal goals responsibly and sustainably.

Therefore, sustainability in people management goes beyond HRM policies and practices by including a broad and critical perspective of leading people responsibly and ethically to accomplish the first building block of the ROC model, proposed by Prins et al. (2014), "respect." A primary prevention perspective involves the psychology of sustainability and sustainable development (Fabio, 2017). Achieving quality of life and well-being are sustainability goals as they allow positive organizational contexts that are key to mobilizing energy, coping with challenges, and innovation. Besides the internal social concern, sustainable HRM includes the external social concern leading people to engage in social projects through corporate volunteering, addressing issues such as human rights, diversity, and inclusion (Stahl et al., 2020). HRM can also provide a critical debate about the introduction of global supply chains and the growth of out-sourced and off-shore services that have exacerbated unfair labor conditions by simply applying economic responses in a competitive market, reducing labor costs, for example, without considering ethical implications (Donaghey & Reinecke, 2020). Prins et al. (2014) remark that the critical HRM literature highlights the pitfalls of managing employment relations based solely on economic terms and the need to bring the "human" into HRM. Respect in sustainable HRM involves concerns about "sense-making, engagement, employee participation, autonomy, […] which may allow corporate sustainability initiatives to become substantive and not merely means to ends" (Prins et al., 2014, p. 272).

Furthermore, "openness", the second dimension of the ROC model (Prins et al., 2014) requires revisiting the strategic fit, including institutional and stakeholder theories, which could broaden the scope of mainstream HRM, usually focusing on industrial/organizational psychology. Another dimension of fit, involves the environmental fit. "Green HRM" is increasingly becoming the focus of research and involves literature related to environmental management and HRM and organizational culture (Renwick, Redman, & Maguire, 2013).

Finally, the last dimension of the ROC model (Prins et al., 2014), "continuity," involves the search for a long-term focus on organizational relationships and employment relations. Prins, Stuer & Gielens (2020) suggest a reinforcing effect between sustainable HR practices, social dialogue and industrial relations climate. Within a more sustainable or balanced approach, scores of

financial, individual, and social performance are important to consider simultaneously for the long-term survival of the organization. The continuity dimension within the employment relation is not equal to lifetime employment but involves synthesizing individual and organizational focus on career management.

CONCLUSION AND AVENUES FOR RESEARCH

In sum, to debate sustainability and the role of HRM, a new approach to managing people that goes beyond the traditional approach to strategic human resource management (SHRM) should be discussed. According to some authors (e.g., Ehnert, 2008; Kramar, 2014), by adopting a sustainable approach to HRM, we are concerned with the outcomes of managing an individual or a group within an organization. However, we are also focusing on health and well-being in work contexts as primary levers for sustainable development (Fabio, 2017). Above all else, we are attentive to the impacts of HRM policies and practices on groups of people and the relationship between multiple stakeholders within the organization and within the wider community (e.g., social outcomes).

Relevant avenues for research concern identifying the socioeconomic and strategic context in which sustainable HRM prospers best. For example, interesting research issues could involve identifying ways of advocating or excluding sustainable HRM strategies with cost-cutting or restructuring strategies. The influence of external socioeconomic factors, such as culture, sustainability institutions (such as UN and/or local public institutions), environmental governance, and regulation or consumer environmental concerns, in a new sustainable HRM model, are important avenues for research. In the vein of Tanova, & Bayighomog (2022) organizations wishing to successfully implement a sustainable HRM model should avoid a one size fits all approach and therefore researching contextual factors is important.

Researchers should also consider the extent to which organizations develop substantive or ad hoc approaches to the three dimensions of the ROC model and the roles played by vertical, horizontal, transactional, and transformational themes, practices, and processes within these approaches.

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AUTHOR'S CONTRIBUTION

Teresa Proença worked on the conceptualization and theoretical-methodological approach; theoretical review; data collection; data analysis, and, finally, writing and final revision of the manuscript.