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ORIGINAL PAPER

The Ethical Commitment of Business Strategy: ESG-Related Factors as Drivers of the SDGs

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Abstract
Companies play an important role in sustainable development. While many companies have incorporated ESG initiatives into their strategies, the specific impact of these efforts on the SDGs remains unclear, especially regarding how these initiatives are prioritized or aligned within corporate strategies. Despite the common relationship between ESG practices and sustainability, limited research has investigated how ESG strategies contribute to the SDGs. This paper aims to assess the ethical commitment of organizational practices, analysing how the combination of five ESG-related variables (ecological impacts, access and affordability, labour practices, product design and lifecycle management, and business ethics) leads to a positive contribution to the SDGs among 137 companies belonging to EUROSTOXX and S&P500 indexes. A fsQCA analysis has been conducted, distinguishing between ESG variables with internal, external, human and non-human connotations. The findings highlight that the combination of all these variables rather than isolated ESG practices is essential to achieve the SDGs. Although differences are shown between the companies belonging to the two indexes, ethical governance, environmental issues and labour practices have emerged as the most relevant ESG variables for achieving sustainable goals. This study provides a better understanding of what and how ESG initiatives can contribute to the SDGs, helping companies and policy makers identify the ethical approaches to consider when designing strategies to advance towards sustainable performance.

Keywords ESG · SDGs · Sustainable behaviour · Ethical commitment · Business ethics

Introduction

Companies must face significant challenges related to climate change (Lemus-Aguilar et al., 2019) and address demographic and social concerns (Aydogmus et al., 2022). Sustainability has become an essential component of organizational strategies, linking environmental protection and the pursuit of community well-being to the traditional objective of maximising value for shareholders (Alsayegh et al., 2020). Sustainable strategies have become a valuable competitive advantage (Malik et al., 2021), allowing companies to improve their financial performance (Ali & Jadoon, 2022) and credibility among stakeholders (van der Waal & Thijssens, 2020). In addition, sustainable initiatives allow companies to develop a solid organizational culture capable of prioritizing the well-being of employees (Wang et al., 2022) and reinforce the social commitment to customers and society, looking for strategies capable of improving their quality of life (Mesquita & Missimer, 2021). Furthermore, more sustainable organizational performance also encourages innovation in production processes, allowing companies to establish more efficient consumption of natural resources and reduce the negative environmental impacts of their activities (Cheng et al., 2023). Thus, aligning ethical awareness with sustainable objectives when designing business strategy can have a positive influence on economic results, society and the environment (Bubicz et al., 2019). Environmental, Social and Governance (ESG) initiatives integrated into companies' core strategies and daily processes can help them achieve sustainable development (Mashayekhi et al.,

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2024). In this way, sustainable business models that design ESG strategies can generate long-term value for all stakeholders by balancing economic results with social equity and environmental protection (Alsayegh et al., 2020).

Precisely, the Sustainable Development Goals (SDGs) aim to ensure a sustainable living environment for people. Companies' commitment to sustainable development has driven them to adopt a proactive role in achieving the SDGs (Suarez & Sanchez, 2023). Despite the crucial role of companies in achieving the SDGs, there is a notable gap in research on how their strategies and initiatives can effectively contribute to the SDGs (Khaled et al., 2021). Previous research on CSR has primarily examined its relationship with financial performance; however, few studies have analysed the influence of CSR strategies on sustainable development (Fatima & Elbanna, 2023) as a way to help companies integrate sustainable principles into business practices (de Oliveira et al., 2024). Specifically, this research aims to understand how different ESG practices contribute individually and collectively to the SDGs. While companies are taking steps to integrate sustainability into their core strategies, the extent to which these efforts contribute to the SDGs is still poorly understood (ElAlfy et al., 2020). Existing research has linked ESG standards to sustainable outcomes (Consolandi et al., 2020; Gidage & Bhide, 2024; Tyan et al., 2024), but this relationship is not easy to quantify because ESG ratings are primarily focussed on measuring sustainable performance and not on quantifying the achievement of the SDGs (Khaled et al., 2021). This fact forces companies to rethink how their sustainability-related practices lead to achieving the SDGs (Ahmed et al., 2021; Chehimi & Naro, 2024). Measuring the contribution of the ESG initiatives to the SDGs may provide companies, investors and all stakeholders with valuable information to help them build stronger strategies (Calabrese et al., 2021) and decide how their ESG decisions can contribute to the 2030 Agenda (Aydogmus et al., 2022; Isik et al., 2024).

For this reason, the aim of this paper is to assess the ethical commitment of companies through the combination of different ESG-related factors to lead to the achievement of the SDGs. Unlike previous research that has only explored the general relationship between ESG and SDGs, this novel research aims to identify which specific combinations of ESG-related variables drive to the SDGs, providing valuable insights to align ESG strategies with sustainable objectives. This purpose is justified for two different reasons. First, the wide range of sustainable development challenges and the fact that companies can only integrate a limited number of ESG initiatives into their operations and relationships with stakeholders compel companies to identify which CSR initiatives, particularly those driven by ESG strategies, are most relevant to achieving the SDGs (Atasu et al., 2020; ElAlfy et al., 2020). Second, the fact that companies are increasingly implementing and publishing their ESG strategies makes it possible to investigate their connection with the achievement of the SDGs in the long term (Velte et al., 2020). Thus, it seems important to measure ESG performance at different organizational levels, using precise and innovative indicators to promote the discussion on sustainable growth and development (Hossin et al., 2021) and CSR implementation (Meseguer-Sanchez et al., 2021). To this end, a fuzzy set qualitative comparative analysis (fsQCA) has been performed on a database composed of 137 companies belonging to EUROSTOXX and S&P500 indexes, considering the 2023 ESG score of different dimensions of SASB Standards: ecological impacts included in the environment dimension; access and affordability included in the social capital dimension; labour practices integrated into the human capital dimension; product design and life-cycle management belonging to the business model and innovation; and business ethics included in the leadership and governance dimension. These variables have been classified as internal or external, considering if the ESG factors produce impacts within or outside the company; and human or non-human, considering if the ESG factors have or not human connotations. This analysis helps to strengthen CSR research, which has often focussed only on certain internal stakeholders (Fatima & Elbanna, 2023). The results of this study reveal that all ESG factors are important to achieve the SDGs, although there are slight differences between EUROSTOXX and S&P500 companies. From a general point of view, ecological impacts, business ethics and labour practices are identified as the most relevant ESG-related variables to contribute to the SDGs. The findings of this article provide companies with a fundamental framework to design effective sustainable strategies focussed on the achievement of the SDGs. By clarifying which ESG factors have the greatest impact on achieving the SDGs, this research enables companies to strategically allocate resources and refine their approaches to achieve greater sustainable impact. Furthermore, this research emphasizes the importance of CSR-driven initiatives in shaping corporate strategies that go beyond compliance and actively contribute to sustainable development. In doing so, this paper fills a crucial research gap while also laying the framework for future research initiatives aimed at aligning corporate practices with the achievement of the SDGs.

The rest of the paper is structured as follows: "Literature Review" section includes the theoretical framework;"Method"section describes the data, sample and the methodology used;"Results"section presents the study results;"Discussion"section provides the discussion on the results obtained;"Theoretical Contributions and Practical Implications"section shows the theoretical and practical implications; and finally,"Conclusions and Future Lines of

Research"section presents the main conclusions and recommendations for future research.

Literature Review

Sustainability and Organizational Performance

Sustainability is defined as development that allows people to satisfy current needs without limiting those of future generations. The concept of sustainability in the business world has emerged from the Triple Bottom Line framework, which includes three dimensions: economic, environmental and social. According to the first-dimension, companies must ensure that their economic results benefit all stakeholders (not only shareholders). According to the environmental dimension, firms must maximise resource efficiency while minimizing negative environmental impacts. Finally, social dimension requires that firms consider the needs of all stakeholders, promote social well-being and ensure an equitable distribution of resources and opportunities. A sustainable business model requires integrating these three pillars simultaneously without prioritising or undermining any of them to obtain real sustainable results (Alsayegh et al., 2020; Bubicz et al., 2019). This approach requires the thorough integration of sustainable practices and ethical considerations into business strategies, guiding CSR initiatives to create long-term environmental, social and economic value (Schaltegger & Burritt, 2018) in the belief that they play a critical role in how companies' ethical and social policies influence their operations and the well-being of the planet (Chouaibi & Chouaibi, 2021).

Sustainable practices integrated into business strategies can have a great impact on the environment and society (Cerciello et al., 2023), becoming an effective tool for reducing the negative impacts of business activities (Parfitt, 2022) and enhancing sustainable development (Schaltegger et al., 2016). In addition, integrating new sustainable strategies may provide companies with greater competitive advantages since they must continuously adapt, experiment and develop new organizational capabilities (Malik et al., 2021). In fact, sustainable initiatives focussed on a more effective use of resources can increase financial performance through more efficient investments (Lemus-Aguilar et al., 2019) and, thus, raise stock values that improve shareholders' wealth (Ali & Jadoon, 2022). Markets can also positively reward sustainability efforts by opening new markets and attracting new customers with greater social and environmental awareness (Ilyas & Osiyevskyy, 2022).

Beyond economic value, sustainable initiatives must also benefit people and the entire planet (Bubicz et al., 2019). On the one hand, the social pillar of sustainability tends to promote safe working environments by guaranteeing employees' well-being and the respect of human rights (Jamil et al., 2023). These initiatives help companies attract and retain talented employees (Alsayegh et al., 2020), enhance employee engagement and develop an organizational culture based on sustainability principles (Cantele et al., 2024). Furthermore, socially conscious companies tend to commit to more philanthropic goals (Wang et al., 2022) and move from a narrow focus on developing products and services to meet the demands of their customers to a broader perspective that considers the needs of the entire society (Mesquita & Missimer, 2021). On the other hand, companies with a strong environmental commitment are focussed on reducing greenhouse gas emissions and combating global warming (Lomborg, 2020), while promoting more efficient production processes, which facilitates the transition towards a more environmentally friendly economy (Mesquita & Missimer, 2021). These environmental strategies based on innovative production processes enhance the efficiency of manufacturing processes, reduce operating costs, increase the value and competitiveness of companies and reduce the environmental footprint (Alsayegh et al., 2020). A truly responsible approach to corporate sustainability requires that both social and environmental concerns be fully incorporated into business operations and decision-making processes (Schaltegger & Burritt, 2018).

Although sustainability commitment and financial performance seem to be reciprocally related (Jadhav & Sarangi, 2024), in some cases social and environmental objectives are incompatible with economic results. Thus, the long-term benefits of sustainable strategies may conflict with the achievement of short-term economic goals (Cerciello et al., 2023). Sustainable initiatives could require greater financial expenditure, which may reduce short-term benefits (Hossin et al., 2021) and harm financial performance (Rahi et al., 2023). So, it seems clear the existence of two opposing visions of sustainability performance (Ilyas & Osiyevskyy, 2022); firstly, a perspective that argues that sustainable initiatives can create value by improving economic results fulfilling social needs and reducing environmental impacts; and secondly, a perspective that considers that sustainable initiatives require large investments that inevitably can destroy shareholder value.

The SDGs and Organizational Performance

The SDGs have emerged as one of the most essential tools for companies to achieve their CSR objectives by aligning corporate sustainability initiatives with global environmental and socioeconomic priorities (Fallah et al., 2022). In this context, companies have an unquestionable role in achieving the SDGs (Suarez & Sanchez, 2023) by providing their knowledge, cutting-edge technologies and financial resources (Calabrese et al., 2021; Mahajan et al., 2024).

Many firms have focussed on publicising their contributions to the SDGs through sustainability reports (Ike et al., 2019). However, most of them only make vague references to the SDGs projects, failing to communicate how the SDGs are actually integrated and implemented and not clarifying how they prioritise the implementation of the SDGs in sustainability strategies (van der Waal & Thijssens, 2020). In addition, companies omit how to solve the conflicts between the achievement of the SDGs and financial objectives (Heras-Saizarbitoria et al., 2022) or how to manage the achievement of the SDGs that require collaboration with external institutions (Mahajan et al., 2024; van Zanten & van Tulder, 2018). In fact, the business strategies that lead to the achievement of sustainable goals are not always clear or obvious (Mestdagh et al., 2024). As a result, the commitment of companies to the SDGs may have little impact on improving sustainability performance (Suarez & Sanchez, 2023), being this one more related to trying to minimize the external damage of their activities than exploring how their actions might generate truly valuable global change (van Zanten & van Tulder, 2018).

Previous research has demonstrated that those companies whose operations may have greater negative impacts on society or the environment are actively incorporating the SDGs into their strategies (Khaled et al., 2021; van Zanten & van Tulder, 2018). In addition, companies headquartered in developed countries tend to show more commitment to the SDGs (Galeazzo et al., 2023) than those headquartered in other countries, although there are differences between continents; for example, European companies tend to be more committed to the SDGs than North Americans (van der Waal & Thijssens, 2020). Also, the commitment is more robust among newly founded companies that assume the contribution of the common good as a basic concern of their organizational culture than among mature companies with a greater financial orientation (van der Waal & Thijssens, 2020).

Despite the efforts made by companies to communicate their contribution to the SDGs, their integration into corporate strategies remains unresolved (Calabrese et al., 2021). What seems clear is that financial results do not have to suffer damage when companies focus on achieving the SDGs through sustainable initiatives (Galeazzo et al., 2023). In fact, this commitment may even have a positive impact on organizational performance (Martinez-Ferrero & Garcia-Meca, 2020), creating new business opportunities that can positively contribute to the 2030 Agenda and generate corporate profits at the same time (Nicolo et al., 2024). In addition, the achievement of the SDGs can allow companies to expand their knowledge, create new management models, improve their research and development activities (Rendtorff, 2019), design effective long-term strategies and decide investment options (Pedersen, 2018).

ESG Initiatives and Organizational Performance

ESG initiatives are considered a key factor to build a sustainable society (Xie et al., 2023) and promote sustainable corporate performance (Khan, 2022). By incorporating ESG principles into their CSR strategies, companies can make sustainability a value creation mechanism (Saivinod & Sivakumar, 2025), leading investors to consider non-financial factors when making their investment decisions (Lopez-Cabarcos et al., 2019). As global awareness of the importance of non-financial outcomes increases, companies tend to prioritize ESG initiatives in their decisions and strategies (Aydogmus et al., 2022), which requires aligning corporate values, commitment to social responsibility and ethical conduct to promote sustainability (Rossi et al., 2021; Schaltegger et al., 2024).

Previous research has demonstrated that incorporating ESG initiatives into corporate strategy can enhance companies' value (Bhaskaran et al., 2020; Khan, 2022), companies' resilience (Huang et al., 2022) and investments efficiency (Wang et al., 2023). In addition, ESG initiatives can improve operating profits, demonstrating the disposition of customers to acquire goods and services from more sustainable companies (Pulino et al., 2022). Although previous research has also demonstrated that integrating ESG principles into CSR strategies can lead companies to achieve the SDGs (Lu et al., 2021), these results are not so clear when ESG pillars are analysed separately (Mashayekhi et al., 2024). According to Aydogmus et al. (2022), the positive effects on companies' value are only generated when social and governance initiatives are considered because they imply immediate results and low implementation costs. Similarly, the higher investment costs involved in environmental initiatives do not provide immediate returns and may even reduce companies' profitability in the short term (Pulino et al., 2022). The underlying idea is that some ESG initiatives may reduce firm value due to the high investment costs involved and the undeniable 'distraction' from core strategies (Cerciello et al., 2023).

These mixed results could be justified because the definition and quantification of ESG issues are not yet completely clear (Parfitt, 2022). In this sense, the 'Sustainability Accounting Standards Board (SASB)' has become one of the most consistent sets of performance on sustainability and ESG concerns (Afolabi et al., 2022). SASB has created a 'materiality map' with twenty-six categories of sustainability topics grouped into five dimensions. SASB provides a measure of the long-term value of companies, trying to conclude how ESG initiatives can increase their intangible value (Afolabi et al., 2022). This research has chosen one relevant category of each dimension with the ultimate goal of estimating the influence of very different factors related to ESG on the achievement of the SDGs of the companies under study;

specifically the categories chosen are as follows: 'ecological impacts' included in the environment dimension (along with other five categories related to: companies' GHG emissions; the impact of business operations on air quality; the environmental effects of energy consumption; the sustainable use of water resources; and the management of hazardous and non-hazardous waste); 'access and affordability of products and services' included in the social capital dimension (along with other six categories related to: processes to guarantee human rights and a correct relationship with communities; safeguards for customer privacy; data security measures to protect customer data; product quality and safety; the management of accurate selling practices and product labelling; and customer welfare practices); 'labor practices' included in the human capital dimension (along with other two categories focussed on: providing guarantees for the health and safety of employees; and providing the tools to promote and safeguard employees' engagement, workplace diversity and inclusion); 'design and lifecycle of products and services' included in the business model and innovation dimension (along with other four categories focussed on; the supply chain; the materials supply management and the efficiency of manufacturing processes; the management of the physical impacts of climate change and the business resilience); and 'business ethics' included in the leadership and governance dimension (along with other four categories related to: how companies manage potential conflicts with the stakeholders within the framework of compliance with the legal and regulatory environment; the competitive behaviour of companies in the industry; the processes to prevent risks derived from critical incidents and the management of dangers derived from systemic risks).

Ecological Impacts

Some authors consider that the sustainable performance of companies is mainly focussed on environmental initiatives (Chopra et al., 2024; Lemus-Aguilar et al., 2019). Climate change is one of the most serious ecological problems affecting human well-being and causing significant economic losses (Lomborg, 2020). The entire population and especially the most vulnerable groups are severely affected by climate change, which is the cause of not only migratory movements but also serious health and food security problems (Atasu et al., 2020). Sustainable corporate strategies seem to be the key to preserving the environment from the negative impacts of companies' activity (Nilsen, 2024; Rahi et al., 2023). In this way, 'green investments' have emerged as a win–win strategy that allows companies to reduce their ecological footprint (Benkraiem et al., 2022), protect natural resources (D'Amore et al., 2024) and improve financial performance through efficient resource allocation and the creation of new goods, services and markets (Rahi et al., 2023). Furthermore, investments in innovative systems to develop environmentally friendly technologies can also help alleviate inequalities in human development and climate-related disasters (Lomborg, 2020). While it seems clear that reducing adverse impacts on the environment can contribute to achieving the SDGs (Gidage & Bhide, 2024; Isik et al., 2024), some long-term-related strategies can be questioned because their influence on financial results is not immediate (Chen & Ma, 2021). This fact may lead companies to postpone (if legal dispositions allow it) their implementation, making it difficult to adequately analyse their impact on financial results and the achievement of the SDGs. The lack of information about such relationships demands much more research. To date, research analysing the effect of the ecological impacts of companies on the achievement of the SDGs is very scarce (Filho et al., 2023), and none has analysed the combined effect of this variable with other ESG-related variables on the contribution of companies to the SDGs. Therefore, the following proposition is tested:

P1 The presence of ecological impacts leads to the presence of a positive contribution to the SDGs.

Access and Affordability

The true progress towards the 2030 Agenda occurs when sustainable business projects can help communities access (or improve access) to products and services of social interest (Lomborg, 2020). In this sense, companies play a crucial role in promoting equity and well-being by developing strategies to enhance access and affordability to all potential consumers, regardless of their socioeconomic status (Mahajan et al., 2024). Little research has paid attention to analyse the sustainable strategies intended to satisfy special needs of minorities and underserved populations (Atasu et al., 2020), although sustainable development implies that all individuals and population groups, without exception, must have access to basic universal services, such as education, health, energy or telecommunications (Berrone et al., 2019). As a result, some companies have emerged as crucial contributors, implementing sustainable strategies to ensure the quality and accessibility (at a reasonable cost) of their products and services to everyone (D'Amore et al., 2024). Furthermore, innovation in production processes may reinforce the sustainable orientation of companies through the inclusion (also) of the most vulnerable communities (Kalkanci et al., 2019). In this way, socioeconomic inequalities may be reduced when firms can confirm that their activities satisfy the demands of the largest number of people (Berrone et al., 2019). Thus, promoting social equity through business strategies focussed on access to products and services ensuring reasonable prices are crucial to achieving the SDGs (Gidage & Bhide, 2024). Previous research has not resolved

the relationship between accessibility and affordability and business value and has also not clarified how companies can meet global demands without increasing operating costs or harming financial performance. The lack of research further limits the analysis of the relationships between ESG-related variables and the achievement of the SDGs. To date, very scarce research has analysed how companies' ability to ensure access and affordability to their products and services can contribute to the SDGs (Mishra et al., 2023), and none has analysed the combined effect of this variable with other ESG-related variables on the contribution of companies to the SDGs. Therefore, the following proposition is tested:

P2 The presence of access and affordability leads to the presence of a positive contribution to the SDGs.

Labour Practices

Sustainability-conscious companies tend to adopt human resources procedures (Chreif & Farmanesh, 2022) that promote diversity and inclusion in their recruitment processes and design training programmes to develop employees' talent, values, skills and capacities (Chiarini & Bag, 2024; Ilyas & Osiyevskyy, 2022) to foster employees' well-being (Lu et al., 2023). In this way, employees' commitment to sustainable values is encouraged, improving as a result the sustainable performance of companies (Malik et al., 2021; Yong et al., 2020) and employee satisfaction and productivity (Bilderback, 2024). In turn, employees who believe that their companies contribute to sustainable performance tend to perceive their own jobs as valuable, which increases their organizational commitment, helping companies reach higher sustainable objectives (Hossin et al., 2021). In this way, sustainable initiatives related to labour practices have become a win–win proposition for companies to attract, retain and motivate employees (Ilyas & Osiyevskyy, 2022) and also for job seekers who select only companies with high sustainability standards to work and develop their careers (Jamil et al., 2023). In addition, sustainability strategies can be a crucial instrument to address important work challenges, such as low-wage jobs, digitalization and workers'rights (Kalkanci et al., 2019); employees' mental health (Campos-Garcia et al., 2023) or employees' resilience (Lu et al., 2023). Previous research has demonstrated the positive effects of incorporating a sustainability approach into work practices and, in turn, the positive effects of sustainable business practices on firms' performance (Chreif & Farmanesh, 2022). However, to date there is hardly any research that analyses the effect of labour practices on companies' contribution to the SDGs (Ren et al., 2023), and none has analysed the combined effect of this variable with other ESG-related variables on the contribution of companies to the SDGs. Therefore, the following proposition is tested:

P3 The presence of labour practices leads to the presence of positive contribution to the SDGs.

Product Design and Lifecycle Management

New lifestyles more aware of the environmental and social impacts of products and services are emerging (Hojnik et al., 2019). Sustainable practices should also be integrated throughout the supply chain, from suppliers to distributors and retailers (Kalkanci et al., 2019; Prajogo et al., 2024). As a result, negative social and environmental impacts arising from the design and lifecycle management of products and services may be reduced (Muñoz-Torres et al., 2018; Raman et al., 2024). In this sense, more environmentally and socially conscious consumers looking for eco-products and services (Hojnik et al., 2019) are encouraging companies to incorporate sustainable practices in each stage of the supply chain (Wijekoon & Sabri, 2021). These changes towards more sustainable production processes allow companies to have more efficient lifecycle management (Zhang et al., 2018) and create business opportunities for sustainable development (Lu et al., 2020). In addition to modifying the design and lifecycle of actual products and services, sustainable initiatives lead to the design of new ones and the development of new manufacturing technologies with less negative environmental and social implications (Atasu et al., 2020). Previous research has concluded that sustainable initiatives applied to the design and lifecycle management of products and services may be the only way to reduce social inequalities (Kalkanci et al., 2019) and ensure the transfer to a socio-ecological system valid for future generations (Muñoz-Torres et al., 2018). Scarce previous research has analysed how the incorporation of sustainable initiatives related to product design and lifecycle management may affect production costs or companies' response to changes in consumer demands (Gmelin & Seuring, 2014). Even fewer studies have analysed how integrating ESG considerations into the design and lifecycle management of products and services can contribute to the SDGs (Eberle et al., 2022), and none has analysed the combined effect of this variable with other ESG-related variables on the contribution of companies to the SDGs. Therefore, the following proposition is tested:

P4 The presence of product design and lifecycle management leads to the presence of a positive contribution to the SDGs.

Business Ethics

Ethical governance behaviours have become a crucial instrument not only to guarantee the survival of companies but also to enhance sustainability initiatives (Bhaskaran et al.,

2020; Huang et al., 2022; Velte, 2023), especially among more scrutinised companies belonging to sectors such as electricity, oil, water or gas (Perdeli et al., 2021). Ethical business practices are considered a key factor in the implementation of the ESG strategies and the achievement of the SDGs (Tyan et al., 2024). Governance initiatives that promote the presence of women (who are supposed to have greater sensitivity to ethical and environmental issues) in the top management teams can contribute to the implementation of sustainable initiatives (Caby et al., 2024) while improving companies value (Benkraiem et al., 2022). Similarly, women on corporate boards tend to promote the development of ethical codes of conduct (Garcia-Sanchez et al., 2015), improve ethical corporate performance (Khan, 2022) and increase the transparency of ESG reporting about companies' sustainable initiatives (De Masi et al., 2021; Enciso-Alfaro & Garcia-Sanchez, 2024). Ethical conducts in business can also be improved with the presence of independent directors (Arena et al., 2015; Bhaskaran et al., 2020) and avoiding the conflicts of interest that occurr when the CEO is also the chair of the corporate board (Romano et al., 2020). Similarly, the presence of CSR committees, which help with ESG issues (Khan, 2022), and audit committees, which promote transparency in the disclosure of financial information (Pozzoli et al., 2022) and avoid the use of unethical accounting techniques (Parfitt, 2022), tend to enhance sustainable initiatives. As a result, ethical behaviours in business management can ensure the survival of companies and foster sustainable initiatives that contribute to the common good (Janaswamy et al., 2024). Although ethical leadership plays an important role in establishing rightful corporate behaviour (Ahmed et al., 2017; Antunez & Ramalho, 2024), scarce previous research has analysed the ways in which ethical conducts may enhance financial and sustainable performance (Ahmed et al., 2023). Even fewer studies have analysed the effect of business ethics on the SDGs (Rendtorff, 2019), and none has analysed the combined effect of this variable with other ESG-related variables on the contribution of companies to the SDGs. Therefore, the following proposition is tested:

P5 The presence of business ethics leads to the presence of positive contribution to the SDGs.

Method

Methodology

Fuzzy set qualitative comparative analysis (fsQCA) comprises several techniques that combine a qualitative with a quantitative approach building on conditions (Ragin, 2008; Ragin & Fiss, 2008). The main aim of fsQCA consists of establishing asymmetrical configurations—that is, that a certain condition leads to a certain result does not mean that the presence of the result implies the presence of the condition (Fiss, 2009; Ordanini et al., 2014). This method is particularly interesting when studying complex social causal phenomena that can be articulated as groups and explained in terms of necessity and sufficiency (Legewie, 2013; Woodside, 2016). So, fsQCA is an appropriate methodology to be applied in this study, whose aim is to conclude the combinations of ESG-related conditions that can lead to the achievement of the SDGs among companies belonging to EUROSTOXX and SP500 indexes. In other words, drawing on the concepts of necessary and sufficient conditions, fsQCA allows to analyse which conditions (ESG-related variables) are necessary or sufficient for a certain outcome (the achievement of the SDGs) to emerge within complex causal structures.

Sample, Instruments and Calibration

The study variables were chosen from Truevalue Labs SASB Edition database. SASB's multi-year research and industry stakeholder consultation provides a continuous time series of scored ESG events for all twenty-six categories classified in five sustainability dimensions. In order to have a complete and extensive review of companies' ESG strategies, variables related to all dimensions have been selected. Specifically, the selection of the ESG-related variables under study has taken into account the following criteria: (i) at least one variable from each dimension, it is considered to obtain complete and broad conclusions; (ii) the variables chosen are relevant according to the study objective (…how ESG-related factors can influence the achievement of the SDGs in listed companies…); (iii) the variables chosen are related to each other and together make sense to respond to the aim of the paper (ESG variables that express the company's ethical commitment that in turn can be translated into contributions to the SDGs) and (iv) the variables are adapted to the companies under study (belonging to EUROSTOXX and S&P500 indexes) that due to their size, visibility, focus and implications can act as a reference for other smaller or less visible companies.

The outcome evaluates the contribution of the companies to the SDGs. The SDG Impact Rating, developed by Institutional Shareholder Services (ISS), is a robust and independent assessment tool that measures the companies' impact on the SDGs. This rating adopts a holistic and materiality-focussed approach, prioritizing the SDGs that are most relevant to companies' operations. In doing so, it ensures that the rating reflects the companies' true impact in the areas where they can have the most significant effect. It uses a scale from − 10 to + 10, where − 10 indicates a negative impact and + 10 represents a positive contribution to the SDGs. So, the SDG Impact Rating was chosen for

several key reasons: (i) it is an independent, external rating system that is not subject to manipulation by the companies being rated, ensuring impartiality and credibility; (ii) it is backed by ISS, a globally recognized leader in ESG and governance data, providing confidence in the quality and reliability of the information; (iii) it ensures that the most important SDGs are prioritized, allowing for a more relevant assessment of the influence of companies influence on them. In sum, this rating allows for a more meaningful measure of companies' contributions to the SDGs. Considering the aim of this paper, only companies with positive values of the SDGs have been considered in the sample. The study sample comprises companies belonging to EUROSTOXX and S&P500 indexes. Considering companies belonging to both indexes allows to consider two perfectly comparable but radically different economic scenarios that demand to be investigated and compared from different perspectives. Recent research has also considered these two indexes in studies related to the financial or sustainability fields (Cheng & Huang, 2024; Masuhr & Trede, 2023). In principle, all the companies belonging to these indexes have been considered in the study, although at the end only those showing complete information in the database (137) have been included in the study sample: EUROSTOXX (69) and S&P500 (68).

Data, referred to 2023, are related to the categories: 'Ecological impacts-ECOLIM' belonging to 'Environment' dimension; 'Access and affordability-ACCAFF' belonging to 'Social capital' dimension; 'Labour practices-LP' belonging to 'Human capital' dimension; 'Product design & lifecycle management-PDLM' belonging to 'Business model & innovation' dimension and 'Business ethics-BE' belonging to 'Leadership & governance' dimension. For each category, the 'insight score' has been considered, which is a measure of the long-term history of a company, similar to a rating system. This score, that uses a 100-point scale, is less sensitive to the daily events and reflects the performance history of a company over time. A score of 50 represents a neutral performance, and above and below 50 indicates a positive and negative performance, respectively.

Calibration was applied to transform the data into a fuzzy set, establishing three anchors—full membership, maximum ambiguity and full non-membership (Ragin, 2008)—and setting the thresholds at the 90 th, 50 th and 10 th percentiles, respectively (Beynon et al., 2016; Dul, 2016; Misangyi & Acharya, 2014).

Results

The outcome of the model is the presence of positive contribution of the companies to the SDGs and the five conditions are ECOLIM, ACCAFF, LP, PDLM and BE. To conduct a more complete analysis and provide more conclusive results, the complete sample-CS has been divided into two subsamples to consider companies belonging to EUROSTOXX-ES and S&P500-SS indexes. The analyses were performed for CS, ES and SS. The results of the analysis of the necessary conditions are shown in Table 1. The results indicate that none of these conditions, when considered independently, leads to the presence of a positive contribution to the SDGs.

According to the meaning of the selected variables (that reflect the organizations' commitment to ethical principles) and the sense of the intended objective (analyse the combined effect of five ESG-related variables on the companies' contribution to the SDGs), two novel classifications of variables have been concluded using fsQCA. The first, distinguishing whether the variables aim to explain changes outside (ecological impacts, access and affordability) or inside (labour practices, product design and lifecycle management, business ethics) the companies. The second, distinguishing whether the variables have strong (labour practices, business ethics) or weak (ecological impacts, access and affordability, product design and lifecycle management) human connotations. Tables 2 and 3 show the results for the joint analysis of necessary conditions considering the variables with external/internal and human/non-human connotations, respectively.

When distinguishing between internal and external variables, for the CS, the results conclude that the presence of some internal variable and the presence of some external variable are a quasi-necessary condition and an almost quasi-necessary condition for the presence of a positive contribution to the SDGs, respectively. When ES is considered, the presence of some internal variable is a quasi-necessary condition to lead to the presence of the outcome. And when SS is considered, the presence of some internal variable and the presence of some external variable are a quasi-necessary condition and an almost quasi-necessary condition for the presence of a positive contribution to the SDGs, respectively. In sum, the presence of some internal-variable and, to a lesser extent, some external variable is essential for the presence of a positive contribution to the SDGs among companies belonging to EUROSTOXX and S&P500 indexes.

When distinguishing between human and non-human variables, for the CS, the results conclude that the presence of some non-human variable is almost a necessary condition for the presence of a positive contribution to the SDGs. When ES is considered, the presence of some non-human variable and the presence of some human variable are a quasi-necessary condition and an almost quasi-necessary condition to lead to the intended outcome, respectively. Finally, when SS is considered, the presence of some non-human variable is a necessary condition for the presence of a positive contribution to the SDGs. The results allow concluding that all companies, but mainly those belonging to EUROSTOXX index, are more prone to resort to variables with human connotations to lead to the intended outcome.

Table 1 Analysis of necessary conditions

	ModelSDG_{CS}		ModelSDG_{ES}		ModelSDG_{SS}	
Conditions	Consistency	Coverage	Consistency	Coverage	Consistency	Coverage
ECOLIM	0.680160	0.635736	0.599280	0.584381	0.737758	0.629813
~ ECOLIM	0.568109	0.546896	0.609778	0.593923	0.554446	0.543932
ACCAFF	0.604741	0.558890	0.665867	0.638481	0.607925	0.532149
~ ACCAFF	0.640758	0.624138	0.649670	0.607403	0.631443	0.602336
LP	0.636294	0.604563	0.611278	0.611278	0.657538	0.602776
~ LP	0.621826	0.588750	0.644571	0.655583	0.623389	0.566784
PDLM	0.657535	0.626485	0.680564	0.626449	0.649162	0.574893
~ PDLM	0.627982	0.592937	0.650270	0.621916	0.617268	0.581487
BE	0.636294	0.613900	0.613077	0.598711	0.673325	0.605973
~ BE	0.607665	0.566753	0.599280	0.584381	0.590850	0.547299

(~) = absence of condition

Table 2 Analysis of necessary (internal/external) conditions

Conditions	Consistency	Coverage
*Model**SDG**$_{CS}$*		
ECOLIMorACCAFF	0.810528	0.541435
LPorPDLMorBE	0.868555	0.559710
*Model**SDG**$_{ES}$*		
LPorPDLMorBE	0.865927	0.567637
*Model**SDG**$_{SS}$*		
ECOLIMorACCAFF	0.829252	0.520631
LPorPDLMorBE	0.884020	0.532505

Table 3 Analysis of necessary (human/non-human) conditions

Conditions	Consistency	Coverage
*Model**SDG**$_{CS}$*		
ECOLIMorACCAFForPDLM	0.893644	0.534869
*Model**SDG**$_{ES}$*		
LPorBE	0.804739	0.576370
ECOLIMorACCAFForPDLM	0.881824	0.551698
*Model**SDG**$_{SS}$*		
ECOLIMorACCAFForPDLM	0.900773	0.509197

It is important to point out that, despite the differences, there is coherence between the results of the necessary analyses of the three models. The analysis of sufficient conditions was also conducted to identify the causal configurations that lead to the presence of a positive contribution to the SDGs among companies belonging to EUROSTOXX and SP500 indexes. Therefore, three models were analysed:

$$\text{Model SDG}_{CS/ES/SS} = f(\text{ECOLIM, ACCAFF, LP, PDLM, BE})$$

Intermediate solutions are presented for the three models (Figs. 1, 2 and 3). Four configurations lead to the presence of a positive contribution to the SDGs, explaining more than 68% of the analysed cases when Model SDG_{CS} is considered, six configurations explaining almost 64% of the analysed cases when Model SDG_{ES} is considered and three configurations explaining 47% of the analysed cases when Model SDG_{SS} is considered.

The results highlight the need of considering variables with external, internal, human and non-human connotations to lead to the intended outcome. Among internal variables, BE and LP (variables with human connotations) are the most important; and, among the external variables, the most important variable is ECOLIM (variable with non-human connotations). There are slight differences between the results referred to Model SDG_{ES} and Model SDG_{SS}, and bigger differences when the results of the Model SDG_{CS} are considered. Thus, when all the companies of the sample are considered, variables with external and non-human connotations seem to be very relevant to lead to a positive contribution to the SDGs. However, when companies belonging to EUROSTOXX or S&P500 indexes are considered separately, a combination of internal, external, human and non-human variables seems to be the optimal recipe to lead to the intended outcome.

The three models show consistent results between them and with those obtained by the necessary analysis. For Model SDG_{CS}, the results support the propositions P1 and P2, partially support P4 and P5 and do not support P3. For SDG_{ES} and SDG_{SS} Models, the results support the propositions P1, P3 and P5 and do not support P2 and P4.

Discussion

According to the previous research, the results of this study confirm the positive relationship between ESG and SDGs strategies (Gidage & Bhide, 2024; Tyan et al., 2024). Although previous research has demonstrated that social and

Fig. 1 Analysis of sufficient conditions: 4 configurations

Model**SDG**$_{CS}$				
	C1	**C2**	**C3**	**C4**
ECOLIM	○	●	●	●
ACCAFF			●	●
LP		○		●
PDLM	●	●	○	
BE	●		●	○
Consistency (incl.)	0.777990	0.812544	0.819445	0.789692
Raw Coverage	0.314453	0.358935	0.272434	0.264122
Unique Coverage	0.019086	0.074342	0.014776	0.043097
Solution coverage:	0.682161			
Solution consistency:	0.772770			

Note: (●)=presence of condition; (○)=absence of condition; Large circle=core condition; Small circle=peripheral condition. Consistency cutoff=0.801869. Frequency cutoff=1.00. Vector of expected directions (1,1,1,1,1) and (0,0,0,0,0) (Ragin and Sean, 2016).

Fig. 2 Analysis of sufficient conditions: 6 configurations

Model**SDG**$_{ES}$						
	C1	**C2**	**C3**	**C4**	**C5**	**C6**
ECOLIM		●	●	○	●	●
ACCAFF	●		●	○	○	●
LP	●	●		●	○	●
PDLM	○	○	○	●	●	●
BE	●	●	●	●	●	○
Consistency (incl.)	0.824769	0.874178	0.890580	0.881264	0.886682	0.871600
Raw Coverage	0.293641	0.279244	0.280744	0.242652	0.227655	0.240252
Unique Coverage	0.036893	0.009598	0.020996	0.054589	0.027295	0.071386
Solution coverage:	0.638872					
Solution consistency:	0.795964					

Note: (●)=presence of condition; (○)=absence of condition; Large circle=core condition; Small circle=peripheral condition. Consistency cutoff=0.837529. Frequency cutoff=1.00. Vector of expected directions (1,1,1,1,1) and (0,0,0,0,0) (Ragin and Sean, 2016).

Fig. 3 Analysis of sufficient conditions: 3 configurations

Model**SDG**$_{SS}$			
	C1	**C2**	**C3**
ECOLIM	○	●	●
ACCAFF	○	○	●
LP	●	○	●
PDLM		○	○
BE	●	○	●
Consistency (incl.)	0.818287	0.840136	0.822314
Raw Coverage	0.227771	0.238724	0.256443
Unique Coverage	0.079253	0.125966	0.113724
Solution coverage:	0.476160		
Solution consistency:	0.813429		

Note: (●)=presence of condition; (○)=absence of condition; Large circle=core condition; Small circle=peripheral condition. Consistency cutoff=0.801869. Frequency cutoff=1.00. Vector of expected directions (1,1,1,1,1) and (0,0,0,0,0) (Ragin and Sean, 2016).

governance (Aydogmus et al., 2022) or environmental strategies (Nilsen, 2024; Rahi et al., 2023) can promote sustainable development, the results of the necessary analysis show that none of the conditions by their own in none of the three models leads the companies under study to the presence of a positive contribution to the SDGs. This underscores the idea that ESG initiatives are not isolated efforts but rather fundamental elements of the company's long-term vision and its contribution to sustainable development (Schaltegger & Burritt, 2018). So, it is mandatory to consider the novel and joint analyses of different classes of variables. The presence of some of the internal variables is a quasi-necessary condition in all the models. The presence of some of the external variables appears as an almost quasi-necessary

condition in Model SDG_{CS} and Model SDG_{SS}, but not in Model SDG_{ES} where only internal variables seem to lead to the intended outcome. These results show that achieving a positive contribution to the SDGs requires appropriate management of internally driven variables whose effects are internal as well as those whose effects are external. Previous research has also demonstrated that incorporating ESG initiatives in human resources practices (Malik et al., 2021; Yong et al., 2020) and product design and lifecycle management (Kalkanci et al., 2019; Prajogo et al., 2024) can enhance sustainable performance (Cantele et al., 2024). Business ethics has also been identified as crucial for supporting sustainability (Velte, 2023) and the achievement of the SDGs (Huang et al., 2022). Conversely, other previous research has concluded that internal variables may not be relevant to achieve the SDGs (van Zanten & van Tulder, 2018).

The joint analysis of the variables with human and non-human connotations shows that the presence of some of the non-human variables is a necessary condition in Model SDG_{SS} and a quasi-necessary condition in Model SDG_{CS}. Model SDC_{ES} shows that a combination of non-human and human variables is key to lead to a positive contribution to the SDGs. These findings are consistent with previous research that found that companies are primarily focussed on environmental initiatives to combat the ecological impacts of their activities (Chopra et al., 2024; Lemus-Aguilar et al., 2019) in the belief that these kind of initiatives lead directly to the achievement of the SDGs (Nilsen, 2024; Rahi et al., 2023). Similarly, companies can achieve the SDGs by ensuring access and affordability of their products and services (D'Amore et al., 2024; Mahajan et al., 2024) and incorporating ESG initiatives throughout the lifecycle of products and services (Prajogo et al., 2024; Raman et al., 2024). In line with previous research, companies belonging to the EUROSTOXX index are more likely to focus on human-related variables to achieve the SDGs (van der Waal & Thijssens, 2020).

The results of the analysis of sufficient conditions for Model SDG_{CS} show the need of combining external, internal, human and non-human variables to lead to the presence of the SDGs. In this sense, a responsible and ethical approach to ESG implementation integrated in a well-designed CSR strategy strengthens the achievement of the SDGs (Lu et al., 2021; Rossi et al., 2021; Saivinod & Sivakumar, 2025). Thus, ECOLIM and ACCAFF are present as core conditions in three of the four [2,3,4] and two of the four [3,4] configurations, respectively. Only in one configuration [1], none of these conditions are present, and to compensate the lack of external variables (ECOLIM is absent), two important internal variables are present as core conditions (BE and PDLM). In all configurations, at least one internal variable is present; BE and PDLM in configuration [1], PDLM in configuration [2], BE in configuration [3] and LP in configuration [4]. These internal variables behave always as core conditions, underlining their importance in achieving the intended outcome. This result is in line with previous research that states that knowledge, technology and internal initiatives developed by companies can contribute to the achievement of the SDGs (Calabrese et al., 2021; van der Waal & Thijssens, 2020). Among the external variables, ECOLIM is the most important, since it is present as a core condition in three of the four [2,3,4] configurations; and among the internal variables, PDLM and BE are the most important, since they are present as core conditions in two of the four [1,2] and [1,3] configurations, respectively. These results are in line with previous research that states that environmental initiatives (Nilsen, 2024; Rahi et al., 2023), business ethics (Tyan et al., 2024) and processes related to product design and lifecycle management (Eberle et al., 2022) are crucial to create a robust organizational culture based on sustainable principles that help achieve the SDGs. Surprisingly, the variable less relevant is LP that is present as a core condition in one configuration [4] and absent, also as a core condition in one configuration [2]. Other previous studies have concluded that organizations that meet labour standards and prioritize sustainability are better at attracting, retaining and improving employee well-being, thereby enhancing the achievement of the SDGs (Ilyas & Osiyevskyy, 2022). In line with previous research (van Zanten & van Tulder, 2018), the analysis considering human and non-human variables allows concluding that, although all of them are relevant to lead to the outcome, the variables with non-human connotations seem to play a more important role than those with human connotations.

Companies belonging to Model SDG_{ES} show a behaviour a bit different from companies of the complete sample or those belonging to Model SDG_{SS}. In this case, two variables, BE and LP, seem to be the most important, since they are present in five [1,2,3,4,5] and four [1,2,4,6] configurations as core conditions, respectively. These two variables have internal and human connotations, highlighting the relevant role of this kind of variables among companies belonging to EUROSTOXX index. This means that EUROSTOXX companies have found in human resource-related strategies a good way to contribute to sustainable objectives (Hossin et al., 2021; Tyan et al., 2024). Thus, companies contribute to the achievement of the SDGs by incorporating sustainability into internal procedures and ensuring alignment with ethical and socially responsible behaviours (Rossi et al., 2021; Schaltegger et al., 2024). In line with other previous research (Gidage & Bhide, 2024; Isik et al., 2024), ECOLIM is also a relevant variable to achieve the SDGs since it is present in four configurations [2,3,5,6] and in three as a core condition [3,5,6] (in addition, when it is absent [4], it does not act as a core condition). The other two variables,

PDLM and ACCAFF, seem to play a secondary role to lead to the intended outcome. PDLM, that has internal and non-human connotations, is present in three configurations [4,5,6] (in two of them as a core condition [5,6]) and absent in three configurations [1,2,3] as a core condition, which blurs its role in this model. ACCAFF, that has external and non-human connotations, is present in three configurations [1,3,6] (in one as a core condition [3]) and absent in two configurations [4,5] as a core condition, which leads to confirm the secondary role of this variable in this model. These results emphasize the need to design strategies focussed primarily on the product design and lifecycle management (Kalkanci et al., 2019; Lu et al., 2020) or on the access and affordability of products and services (D'Amore et al., 2024) among companies belonging to EUROSTOXX index.

Finally, companies belonging to Model SDG_{SS}, unlike companies belonging to EUROSTOXX index, have to resort to a perfect combination of internal external, human and non-human variables to lead to a positive contribution to the SDGs. The most important variable seems to be BE, which is present in two configurations as a core condition [1,3] and absent in one configuration as a peripheral condition [2], which once again highlights the importance of the variables with internal and human connotations. Then, two variables, LP (with internal and human connotations) and ECOLIM (with external and non-human connotations), share importance to lead to the intended outcome. Both are present as core conditions in two configurations (LP [1,3] and ECOLIM [2,3]) and absent also as core conditions in one configuration (LP [2] and ECOLIM [1]). In this way, its importance is somewhat blurred in this model. The other two variables, ACCAFF (with external and non-human connotations) and PDLM (with internal and non-human connotations), are the least important. ACCAFF is present in one configuration [3] and absent in two [1,2], while PDLM is not present in any configuration and is absent in two configurations [2,3] (in all cases as core conditions). These results are not in line with previous research that has demonstrated that integrating ESG initiatives to develop products and services and ensuring their accessibility and affordability can contribute to the attainment of the SDGs (Berrone et al., 2019; Kalkanci et al., 2019). Conversely, they are perfectly in line with other previous research that has identified business ethics (Antunez & Ramalho, 2024; Tyan et al., 2024; Velte, 2023), employees' well-being (Chreif & Farmanesh, 2022; Lu et al., 2023) or environmental initiatives (Gidage & Bhide, 2024; Rahi et al., 2023) as crucial factors to achieve the SDGs.

In summary, Model SDG_{CS} emphasizes the variables with external and non-human connotations (ECOLIM and ACCAFF) to lead to the intended outcome. Although Models SDG_{ES} and SDG_{SS} show similar results, there are some differences between them. Thus, while companies belonging to EUROSTOXX index are more focussed on internal aspects related to positive attitudes and behaviours of people, companies belonging to S&P500 index show that to lead to a positive contribution to the SDGs requires the presence of variables with non-human connotations. Anyway, in both models, BE (with internal and human connotations) is the most relevant variable, confirming that the organizations' sensitivity towards ethical conducts and business norms is a major driver to lead to sustainable outcomes. Then, a variable with internal and human connotations (LP) and a variable with external and non-human connotations (ECOLIM) share relevance, showing the need of combining all types of variables to lead organizations to positive contributions to the SDGs. Both models agree also to confirm the secondary role of one variable with internal and non-human connotations (PDLM) and one variable with external and non-human connotations (ACCAFF), confirming again the key role of variables with human connotations to achieve the SDGs. In sum, by integrating ethical considerations into ESG strategies, companies can demonstrate their genuine commitment to corporate sustainability and actively contribute to achieving the SDGs.

Theoretical Contributions and Practical Implications

This research provides valuable theoretical insights into how ethical governance with ESG strategies can contribute to achieving the SDGs. Sustainable strategies require a comprehensive approach that integrates different aspects, such as the environment, social capital, human capital, business model and innovation, or governance and leadership. This research concludes that the combination of ESG-related variables can ensure positive contributions to the SDGs. This research makes an important theoretical contribution by examining which ESG-related factors contribute most to the SDGs, rather than simply exploring the general relationship between ESG and SDGs. By analysing the connection between the adoption of ethical ESG practices and the achievement of the SDGs, this research delves into the foundations of CSR, highlighting the importance of aligning corporate strategies with global sustainability goals. The novel classification of variables proposed in this research, considering both external/internal and human/non-human variables, also provides a comprehensive understanding of how ethical governance can act not only as a corporate social responsibility strategy but also as a catalyst to address global development challenges. Furthermore, by analysing companies from diverse regional contexts, this research highlights how the effectiveness of ESG factors in promoting the SDGs may differ across socioeconomic and environmental settings, enriching the existing literature.

This research provides evidence that can guide policymakers and investors to design policies and programmes

that contribute more effectively to the achievement of the SDGs. By considering ESG strategies that support the achievement of the SDGs, policymakers and other different economic actors have the opportunity to develop standards and regulations that address complex social, economic and environmental challenges. Furthermore, the results of this research open new avenues for strengthening collaboration and partnership between governments and businesses to work together to overcome global challenges and achieve sustainable development. This research also provides a strategic foundation for companies seeking to align their ethical commitment to ESG strategies with the SDGs. Thus, through ESG strategies, companies can promote ethical and responsible business practices to improve organizational performance and the achievement of the SDGs. Organizations should consider these findings when evaluating how and where to impact with their strategies (inside or outside) or how to determine the degree of human (or non-human) involvement in these efforts. Specifically, organizations should prioritize ethical governance when designing strategies for achieving the SDGs. Thus, to achieve true sustainability, management must integrate ethical principles into corporate strategies, ensuring that social and environmental decisions are made with a long-term focus. They should also proactively manage their environmental impacts, including energy management, water and waste management, or greenhouse gas emissions, in order to improve the decisional process that contributes to the achievement of the SDGs. This research also emphasizes the importance of designing ethical labour practices focussed on diversity, inclusivity and safety in the workplace to achieve the SDGs. Organizations should also ensure that their products and services contribute to the SDGs, prioritizing access, affordability, quality, safety and customer privacy. Finally, this research highlights the need to integrate sustainability into product design and life cycle management, positioning supply chain management as a central aspect for decision-making. In summary, this research provides a comprehensive roadmap for companies to integrate ESG principles into their strategies with the aim of making significant contributions to the SDGs. Companies should use these insights to design financially viable and socially responsible business strategies.

Conclusions and Future Lines of Research

This study has aimed to analyse the combined effect of five ESG-related variables on the achievement of the SDGs of companies belonging to EUROSTOXX and S&P500 indexes using fsQCA. Two classifications have been considered—distinguishing internal, external, human and non-human variables—to underline the commitment of companies to ethical attitudes and behaviours. The results indicate that all types of variables should be present to lead to the achievement of the SDGs, although the results are slightly different if EUROSTOXX, S&P500 or the complete samples are considered. From a general point of view, the organizations' practices about environmental issues and the ethic quality of their behaviours are very relevant to lead to the achievement of the SDGs. The norms, rules and standards established on labour practices have also huge implications on everything the organizations do and consequently in the way they are evaluated by the market and, consequently, in their ability to contribute to sustainable objectives. Practices merely related to organizations' products or services are considered as accessory to the achievement of the SDGs.

The findings highlight that companies should look inside and outside simultaneously and put their efforts into designing strategies that are very well perceived, understood and valued by the market and their members. This process of combining internal, external, human and non-human variables seems to be the winning recipe to guarantee the achievement of the SDGs. This research offers actionable insights on how a balanced and ethical approach to ESG practices can drive the achievement of the SDGs. By doing so, companies not only fulfil their ethical commitments but also become agents of positive change, contributing to the SDGs and to the common good of society and the planet. Furthermore, this research can guide companies on how to allocate resources efficiently to achieve greater sustainable value, suggesting a shift towards more holistic and ethical governance behaviours and emphasizing the value of integrating ESG-related factors into corporate strategies. Business managers can find in the results of this study important keys to develop strategies with solid ethical precepts, ensuring that sustainable objectives are integrated into organizations' culture. In this way, managers should incorporate ESG principles into the CSR strategies, promoting a corporate culture that prioritizes ethical responsibility at the heart of sustainability efforts as a way to facilitate long-term value creation. In other words, managers should use the findings of this research to ensure that the implementation of ESG strategies goes beyond mere regulatory compliance and truly reflects a genuine ethical commitment to social well-being and environmental sustainability. Policymakers may also benefit from these insights when creating regulations and norms focussed on promoting sustainable development. In sum, this research provides the starting point for refining ESG strategies focussed on guiding companies and governments to take a proactive and influential role to achieve the SDGs.

Like any empirical study, this research has some limitations. The QCA methodology using a main outcome and five possible antecedents could seem simple; therefore, three models have been tested with the aim of making

comparisons and establishing similarities and differences between them. The analysis could have included more companies, but the lack of transparency of some of them in providing reliable information has limited the study sample. Anyway, fsQCA is mainly focussed on small and medium samples as that of this study. The results are consistent with previous research and create opportunities for new analyses. Although the variables included in this study are very relevant, the inclusion of other ESG-related variables (water and wastewater management, business model resilience, competitive behaviour, etc.), other classification criteria (sustainable purposes, technology used, etc.) or other outcome variables (green innovation, sustainable growth, etc.) could also provide interesting results. Specific industries and sectors should also be considered to highlight their idiosyncrasies and corroborate the results obtained in the different studies.

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Declarations

Conflict of interest No competing financial or non-financial interests that could generate potential conflicts of interest.

Ethical Approval This declaration is made to ensure objectivity and transparency in research and to ensure that accepted principles of ethical and professional conduct have been followed.

Research Involving Human and Animal Participants No involving human participants and/or animals and, in consequence, any informed consent is necessary to attach.

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