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Does ESG Assumption Improve Financial Performance?

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Abstract. *The challenge of Environmental, Social and Governance (ESG) has been identified as being inextricably linked to organisational culture, with these aspects being embedded within the company's values and practices. The companies' commitment in promoting sustainability, diversity and ethics in their activity is considered to be a prerequisite for effective performance in relation to all categories of stakeholders. The increased interest in the relationship between ESG and financial performance has led to a substantial volume of research. This paper's objectives are to broaden the discussions of the relationship between ESG and financial performance, through a bibliometric analysis of 1461 articles. The following themes were identified as the primary subjects of research: corporate disclosure of ESG information and financial performance; ESG, volatility, risk and return; corporate ESG performance and dividend payment; the financial performance indicators in association with ESG performance; ESG, development, innovation, digitisation; ESG performance and earnings management; and ESG controversies and business performance. The trends in the research of the topic concerned the particularities of the relationship between the variables in times of crisis, the correlation between the variables moderated by reporting, the analysis of different ESG ratings, green financing, the particularities in the banking system, materiality and sectoral particularities, as well as ESG disclosure and corporate financial flexibility. The results of the study enhance understanding of this relationship, being useful to both stakeholders and scholars, identifying trends and tendencies in this issue, and providing directions for future studies to establish the determining factors and performance practices.*

Keywords: ESG, financial performance, stakeholders, disclosure, controversies.

Introduction

The ESG concept encompasses environmental, social, and corporate governance issues, which has become a priority in corporate policies and practices. With regard to environmental challenges, these refer to climate change, pollution mitigation, energy efficiency, water management, greenhouse gas emissions, biodiversity loss, and deforestation/reforestation. Social issues include employee safety and health, working conditions, diversity, equity, and inclusion. Corporate governance is defined as a set of behavioral patterns in terms of performance, efficiency, growth, financial structure, and shareholders and other stakeholders' treatment, and as a normative framework that includes rules under which the company operates (Claessens, 2006). The fundamental elements of corporate governance encompass the promotion of diversity within the board of directors, the establishment of a robust management structure, the delineation of compensation policies for executives, the fostering of transparency and integrity within the organization, and the adherence to ethical conduct (Nel et al., 2022; Cecchetti et al., 2018; Labelle et al., 2010).

The increasing requirements and the augmentation of the number of interested parties have necessitated a novel vision and, implicitly, a shift in attitude. By supporting businesses that uphold human rights, foster diversity, have sustainable practices, and are dedicated to doing good deeds for society, investors are demonstrating an increasing interest in ESG investing and bringing their values into line with their investment decisions. Moreover, employees exhibit a

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high level of engagement and a strong sense of affiliation with entities that assume social responsibility. A symbiotic relationship exists between companies and the community, wherein companies' engagement in community projects fosters community development, thereby contributing to the company's long-term growth.

In this context, the evaluation of performance is reconsidered through the integration of environmental, social and corporate governance dimensions, in conjunction with financial aspects. A primary objective of companies is to enhance the interests of all stakeholders, thereby underscoring the necessity to identify the relationship between these components of performance. The extant research in the field of the impact of ESG performance on financial performance has yielded contradictory results, with some studies identifying favourable or nefavourable effects of ESG performance on financial performance, while others report no association between the two (Friede et al., 2015; Chen et al., 2023).

The aim of this paper is to expound the debates regarding the relationship between ESG and financial performance in the literature, improving the comprehension of this relationship, noticing the trend and tendencies in the research of this subject and providing information for new researches. The study addresses the following research questions: what are the main characteristics of the collaboration between authors in research on the correlation between ESG performance and financial performance, and how does this influence the quality and relevance of the published works? (RQ1); what are the research topics in the correlation between ESG performance and financial performance? (RQ2); what trends are identified in the research on the correlation between ESG performance and financial performance? (RQ3); and what are the less explored areas and what opportunities for future research are delineated? (RQ4). The contribution of this study is that it provides relevant benchmarks for assessing corporate performance, which is of interest to all categories of stakeholders. The study is also useful for academics in identifying future research directions.

Literature review

A considerable number of bibliometric studies have addressed the ESG issue in general or in relation to specific variables. In the study by Khaw et al. (2024) on ESG performance, were identified as motor themes: ESG, corporate governance and board diversity, as basic themes: ESG performance, digital transformation and green innovation, sustainability, the triple bottom line and digitalization, and as niche themes: CSR, gender and resource dependence theory, sustainable development, institutional investors and environmental performance. The performance of ESG is determined by the following factors: digital transformation, financial strategies, CSR, regulatory and policy mechanisms, governance, board diversity, and organizational excellence.

In the field of corporate sustainability, Khan (2022) undertook a comprehensive investigation of the extant literature, identifying three key areas of interest with regard to the ESG disclosure and performance. These areas include: companies' characteristics that affect sustainability performance; corporate governance as a determinant of non-financial information disclosure; and the financial implications of non-financial information disclosure. The disclosure of a company's ESG information has been demonstrated to enhance its performance, thereby incentivising stakeholders to mitigate environmental issues, including carbon and toxic emissions, biodiversity loss, global climate change, and supporting social issues such as healthy employee relations, equality, human rights and anti-corruption (Senadheera et al., 2022).

The study of the relationship between ESG practices and performance delimited three main groups of interest: theoretical foundation of ESG practices, which covers aspects such as ESG performance, ESG disclosure, CSR, as well as stakeholder theory and legitimacy theory; the impact of ESG practices on the short-term financial performance of companies, with the reporting of earnings management implications; ESG practice and implications on corporate sustainable development, indicating the need to deepen the research on green factors in this relationship (Fu et al., 2023).

A comparative bibliometric analysis of English, Chinese, and Korean papers related to ESG reveals linguistic and cultural nuances in the relationship between ESG practices and financial performance. Consequently, Chinese and Korean articles have indicated a moderate correlation, whilst English articles have highlighted no significant correlation (Bai and Kim, 2024). This is attributed to cultural, institutional and regulatory variations within the field.

Regarding the assessment of the variables, the studies in the field used ESG scores from various databases (Bloomberg and Thomson Reuters). These databases employ distinct methodologies and take into account specific factors that have the potential to influence the outcomes of correlation analyses. In the context of this nexus, the most frequently adopted indicators for evaluating corporate performance are ROA, ROE and Tobin's Q. From a financial perspective, ESG commitment is predominantly associated with diminished risk expectations among investors, leading to reduced costs of capital and enhanced financial performance (Saini et al., 2023).

Considering the results of previous studies, this paper deepens the framework of ESG in correlation with financial performance in order to identify the priorities, trends and future research directions to establish the determining factors and performance practices.

Methodology

In order to study the correlation between ESG and financial performance, a bibliometric analysis was conducted, using both quantitative and qualitative methods. The scientific publications included in the study were selected from the Web of Science platform, accessed on 29 November 2024. The resulting sample comprised 1461 articles, authored by 3574 individual contributors. The data were processed with VOSviewer software tool.

The examination of co-authorship by document was performed. The minimum number of documents required for an author to be included in the analysis was five. Of the 3574 authors, 23 meet the thresholds. The total strength of the co-authorship linkages with other writers was calculated, being chosen those with the strongest total link strength (4). Furthermore, the co-authorship analysis at the institutional level was carried out.

To build a specific network of research themes, terms co-occurrence analysis was conducted. The minimum threshold for the occurrence of a term was defined as five. Of the 22001 terms, 940 meet the threshold. For these, the total strength of the co-occurrence links with other terms was calculated, selecting those with the greatest total link strength (564).

An investigation of bibliographic coupling by documents was conducted. The minimum threshold of five citations per document was considered. Of the 1461 articles, 760 meet the threshold. The total strength of the bibliographic coupling linkages between each document and other documents was calculated, and the documents with the strongest total link strength were identified (758).

Results and discussions

Co-authorship

Research collaborations are imperative for the advancement of knowledge and the addressing of complex societal challenges (RQ1). The most significant strength of the co-authorship links was presented by Kweh Qian Long and Lu Wen-Min, who studied various aspects such as how ESG initiatives and ISO 14001 affect corporate performance, the impact of ESG and sub-elements on companies' efficiency, how R&D and gender diversity mediate the association between ESG pillars and corporate efficiency, the association between ESG and company performance, taking into account the influence of cultural orientation to power distance, how the three pillars of sustainable investment individually affect innovation performance and business performance, and how power distance moderates these relationships (Le et al. 2023; Tran et al., 2024; Lu et al., 2024; Kweh et al., 2024; Lu et al. 2024). Another prolific scientific partnership in the field is that between Bhaskaran Rajesh Kumar and Ting Irene Wei Kiong (2020).

A total of 1,673 organizations participated in addressing this subject. The entities with the highest total link strength are the University of Udine (14), the University of Trieste (13), and the University of Verona (13). Despite Italy ranking third in the country ranking according to the number of articles published after People's Republic of China and USA, it develops the most collaborations, both internally and with universities in England and Australia.

The diversification of perspectives and approaches engendered by these collaborative endeavors enhance the quality of research. Furthermore, international collaborations can bring together researchers from different cultures, which can enrich the research process and lead to more globally relevant results. Additionally, these collaborations can enhance the visibility and impact of research, thereby facilitating the dissemination of results.

Terms co-occurrence

The identification of research themes – RT- in the field (RQ2) was facilitated by conducting a co-occurrence analysis of field terms (Figure 1).

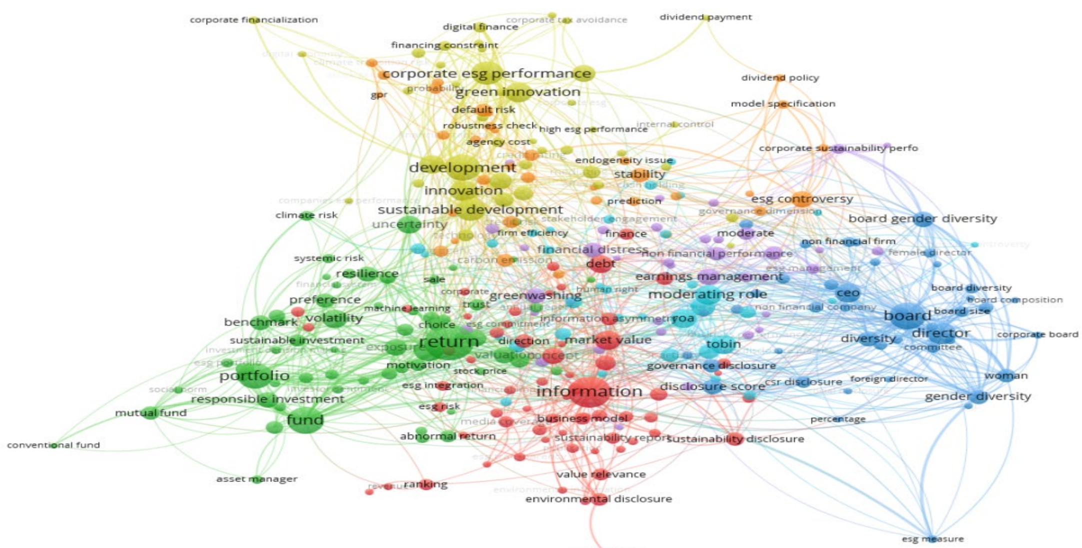

Figure 1. Research themes

RT 1: Corporate disclosure of ESG information and financial performance

Disclosures pertaining to sustainability can take various forms, ranging from product information, job announcements, investment projects, to complex reports, which can be voluntary or mandated by law. With regard to the information, content, level of disclosure and intentionality are considered to be significant.

A plethora of studies have previously emphasised that the disclosure of ESG information by corporations is conducive to enhancing financial performance. The growth of a company's sales depends on the popularity of eco-friendly products, with consumers increasingly favouring products with green rating labels (Rokka & Uusitalo, 2008). Companies with strong ESG performance and disclosure can secure lower-cost loans (Eliwa et al., 2021), leading to higher financial success and increased value (Zhan, 2023).

The disclosure of ESG information reduce information asymmetry, providing corporate management, external investors and all interested parties with a greater volume of information. This, in turn, ensures increased confidence in the long-term sustainable development of companies. The strongest correlation between business efficiency and the publication of governance information is followed by that of social and environmental information (Xie et al., 2019).

The sustainability disclosure can be persuasive. A higher level of return volatility in the stock market has been shown to reduce the likelihood of a negative ESG news disclosure. This suggests that managers may be inclined to refrain from engaging in hoarding behavior by withholding negative ESG news, which would exacerbate market volatility and damage the company's reputation. In a similar vein, while the evidence for good ESG news is comparatively weaker than that for negative news, managers are more inclined to emphasize it when returns are volatile. Investors who prioritise sustainability should be cognizant of the potential for data bias, particularly during periods of heightened volatility (De Vincentiis, 2024).

RT 2. ESG, volatility, risk and return

Return is a fundamental metric of financial success, yet it cannot be analyzed independently of risk. The interplay between risk and return is vital for investors and enterprises, facilitating well-informed choices, portfolio refinement, and the synchronization of investment approaches with risk appetite and financial objectives. Organizations that embrace robust ESG practices may attain superior long-term financial outcomes due to strengthened credibility, customer commitment, and increased operational effectiveness. By embedding ESG considerations, investors and corporations can deepen their perception of risk while potentially amplifying financial gains, ensuring their strategies align with broader societal priorities and sustainability endeavors.

Investors' options for companies with ESG performance have the potential to reduce the cost of capital, but expected returns may be lower. The returns anticipated by investors may also be diminished, even for investments in companies that have attained a high ESG rating, due to the established correlation between ESG factors and risk. ESG investments can yield social and environmental benefits, but may not necessarily translate into higher financial returns for investors (Cornell, 2021).

In developed markets, the impact of a negative news shock of size 2 standard deviations is 45% more significant than that of a positive news shock of the same magnitude. Similarly, in emerging markets, a negative news shock of size 2 standard deviations has a 41% greater impact than a positive news shock of the same magnitude (Sabbaghi, 2023).

Companies with superior ESG performance have lower stock price volatility than those with inadequate performance. This contributes to the resilience and stabilisation of stock prices (Zhou & Zhou, 2021).

RT 3: Corporate ESG performance and dividend payment

The payment of dividends can be perceived as a sign of financial stability and profitability of a company. Companies with better ESG performance are expected to pay higher dividends, while companies with more controversial ESG issues are related to lower dividend payouts. Better ESG performance boosts dividend payouts through two main channels: earnings and risk. Higher ESG performance leads to better stakeholder relations and more efficient management, higher earnings and lower earnings risk, and hence increased dividends (Bilyay-Erdogan et al., 2023). Furthermore, the higher stability of dividend payout ratios is enhanced by ESG scores. The time perspective of managers is one argument for this conclusion. Dividend payout ratio stability is more likely to be a reflection of a long-term perspective on a company's value growth than other dividend perspectives (Verga Matos et al., 2020).

RT 4. The relevance of financial performance indicators in relation to ESG performance

The majority of studies that investigate the relationship between ESG and financial performance take into consideration operational profitability (ROA), financial return on equity (ROE) and market performance (Tobin's Q).

RT 5: ESG, development, innovation, digitization

Technological development and innovation improve companies' global performance, with specific relationships between economic and financial performance and ESG. Innovation positively impacts economic sustainability, as measured by the relationship between R&D intensity and the market-to-book ratio (Di Simone et al., 2022). Digital transformation improves a company's ESG performance by empowering resources, enhancing governance and boosting transparency. Innovation related to green technology reduces pollution and ensures resource efficiency, improving ESG performance. Digital technology provides managers with more accurate scientific information for internal management. This improves the precision of managers' decisions and internal control (Lu et al., 2024). Digitization ensures the improvement of both the governance score of companies, by reducing agency cost as an effect of reducing informational asymmetry, and the social one, by improving goodwill with consumers (Fang et al., 2023).

RT 6: ESG performance and earnings management

The practice of using accounting methods to create financial statements that give an unduly optimistic picture of a company's operations and financial status is known as earnings management. Adoption of social responsibility practices by companies is met with approval by their stakeholders, who recognize such actions as ethical. It is noteworthy that instances of management manipulation of revenues may coincide with the adoption of ESG practices.

ESG involvement is perceived as a form of managerial misconduct and a means to conceal dishonest behavior. The interplay between ESG and earnings management is further exacerbated by financial hardship. The impact of governance on earnings management is a significant area of concern, with the misbehavior of management being lessened by corporate governance. Furthermore, a higher incidence of earnings management is observed in companies that disclose a greater volume of social information. Social initiatives, such as community involvement, human rights, and workplace environment, may be used as a means to cover up earnings management tactics (Almubarak et al., 2023).

It has been revealed that gender diversity on boards can have a significant impact on the reduction of consequences arising from earnings management on ESG performance (Adeneye et al., 2024). The managerial exploitation of resources necessary for sustainable investments and sustainability performance is lessened by corporate governance measures. Companies that promote earnings management through greenwashing, brownwashing or managerial entrenchment manipulate sustainability investments, affecting ESG performance.

RT 7: ESG controversies and business performance

ESG controversies emerge in the aftermath of incidents or actions connected to businesses' operations or goods, with the potential to jeopardise their reputation due to the possibility of harm to their governance, social, or environmental standards. The primary controversy subjects pertain to “controversies privacy” or "business ethics controversies". The ESG controversies might have repercussions on companies' reputation and financial standings.

The investors should concentrate on clean-coated enterprises with respect to controversies ("silent saints") and smaller companies with low ratings ("small sinners"). This is important in relation to ESG-based scandals because the impact of their absence is frequently disregarded (Dorfleitner et al., 2015).

There is an inverse relationship between ESG disputes and business performance. However, these negative effects are lessened by clear corporate governance frameworks and internal ESG policies, which can also turn these disputes into chances for expansion and reputation building (Elamer and Boulhaga, 2024).

Bibliographic coupling

Recent trends (RQ3) have been identified in the research of the ESG - financial performance relationship (Figure 2):

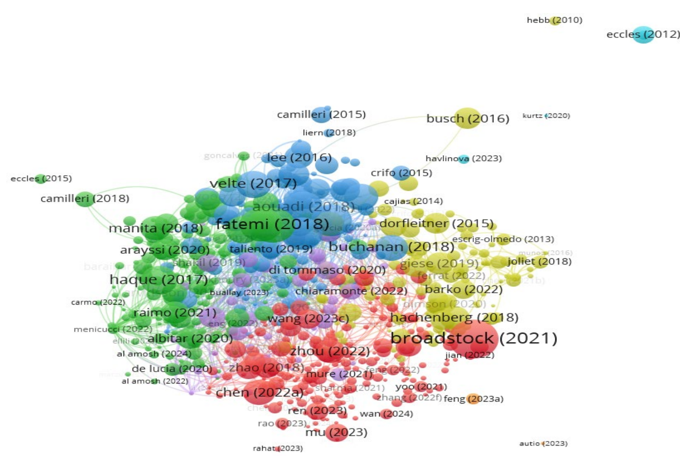

Figure 2. Bibliographic coupling

1. the peculiarities of the relationship between the two variables in times of crisis

In general, high ESG portfolios outperform low ESG portfolios. ESG performance reduces financial risk in times of financial crisis, and its significance is diminished in "normal" times, demonstrating its growing importance in times of crisis (Broadstock et al., 2021);

2. the correlation between the two variables moderated by reporting
Raimo et al. (2021) highlighted that businesses can obtain third-party financial resources under more favorable terms when they are more transparent in the dissemination of ESG information. Also, businesses should be required to submit data that shows better ESG performance and is more timely, relevant, reliable, and comparable. "Disclosure plays a crucial moderating role by mitigating the negative effect of weaknesses and attenuating the positive effect of strengths" (Fatemi at al., 2018).

3. different ratings
In an attempt to assess sustainability performance, several ESG scores have been developed (ASSET4, Bloomberg, KLD, etc.). The inconsistency of ESG ratings is attributed to various indicators and measurement units, implicit data discrepancies, the selection of benchmark (broad market or industry), data imputation, and information overload (Dimson et al., 2020).

4. green financing
Investors have the chance to specifically focus on climate-protective investment initiatives through the green bond market. Relating this new asset class to traditional (non-green) bonds, the risk-return profiles are appealing. In contrast to non-green bonds from the same issuers, green bonds with rating classes AA–BBB trade slightly tighter for the same time. ESG rating has a greater impact on price variations than issue size, maturity, or currency (Hachenberg and Schiereck, 2018).

5. the relationship between the two variables in the banking system
Research in the banking system has highlighted that until an inflection point is reached, ESG incremental investments continue to yield benefits. Three factors influence the relationship between ESG and FP: the pillars, the FP measure, and the ESG level. In order to rationalize their investments and consider efficient returns, banks should identify ESG turning points (El Khoury et al., 2023).

6. materiality, sectoral particularities
The lack of standards is a major challenge for businesses and investors using ESG data. It is also difficult to determine which ESG factors are most important for a business in terms of generating long-term value for stakeholders. Sector-by-sector development of materiality and reporting criteria is necessary; otherwise, disclosures will be inconsistent and deceptive. Reporting practices vary, ranging from boilerplate disclosure to no disclosure at all. Define material ESG issues by sector ensure the development of key performance indicators (Eccles et al., 2012).

7. ESG disclosure and corporate financial flexibility
Companies with higher ESG disclosure levels have higher unsecured debt to total debt ratios, less expensive cost of debt, and higher credit ratings. Lenders closely examine a company's ESG disclosure and use it to decide whether to lend. Businesses with better ESG disclosure can access the capital markets more easily and increase their financial flexibility (Feng and Wu, 2023).

Future research
Based on the previously mentioned issues, the following research directions are posited for future exploration (RQ4): the study of the biunivocity of the relationship between ESG performance and financial performance, both in aggregate and at the level of components; the incorporation of other sectors into the analysis, beyond the current investigations that focus on banking, real estate, and agriculture; the undertaking of comparative analyses between sectors to identify the

specific factors that contribute to enhanced performance; the identification of relevant indicators in the assessment of financial performance in the context of the correlation with ESG performance; the analysis of the impact of the application of sustainable reporting directives on financial performance; the study of the impact of digitisation on the relationship between ESG performance and financial performance; the analysis of the long-term effectiveness of ESG practices by evaluating the relationship between the efforts to obtain an ESG "license" and financial performance.

Conclusion

There is a growing debate regarding the analysis of ESG aspects, in the context of mounting societal demands, the proliferation of sustainability committees, and the increasing regulatory framework within this domain. This study investigates the relationship between ESG performance and financial performance in the literature, providing valuable insights regarding the evaluation of corporate performance, determining factors, relevant aspects, identifying limits and research opportunities. The subsequent research themes have been identified as being associated with: the corporate disclosure of ESG information; volatility, risk and return; dividend payment; the financial performance indicators; development, innovation, digitization; earnings management; controversies. The temporal aspect of the research focused on the particularities of the relationship between the two variables in times of crisis, the correlation between the two variables moderated by reporting, the analysis of different ESG ratings, green financing, the relationship between the two variables in the banking system, materiality and sectoral particularities, as well as ESG disclosure and corporate financial flexibility.

This research was conducted on the basis of the extant literature on the WOS platform on 29 November 2024, which revealed a marked upward trend in publications, with the potential to alter the identified configuration.

The connection between financial performance and ESG factors is increasingly acknowledged as essential by firms, investors, and regulators, with each stakeholder incorporating ESG into their strategies and policies. To drive long-term value creation, firms should align their business strategies with ESG principles. This requires identifying ESG risks and opportunities by thoroughly assessing the impact of environmental and social factors on operations, supply chains, and market positioning. Additionally, it involves setting measurable targets for sustainability, diversity, and governance and embedding these goals within overall business objectives. Engaging with stakeholders offers valuable insights into ESG expectations while strengthening corporate reputation. This can be achieved by keeping stakeholders informed about ESG initiatives and practices. Moreover firms should develop metrics to evaluate the impact of ESG initiatives on financial performance. Furthermore, investors are advised to incorporate ESG factors into their investment decisions, in order to identify risks and opportunities that may affect financial performance. This holistic approach benefits individual firms and investors by fostering a more resilient and responsible business environment. Moreover, regulators have an interest in this topic, and should establish clear guidelines and frameworks that encourage firms to adopt ESG practices, and also should promote education and awareness around ESG matters among firms and investors.

In the academic context, this research study proposes the following research directions for future investigation as follow: the exploration of the biunivocity of the relationship between ESG performance and financial performance; the development of analyses at both the intra- and inter-sectoral levels; the identification of relevant indicators in the evaluation of financial performance in the context of its correlation with ESG performance; the study of the impact of digital transformation on the relationship between ESG performance and financial performance. The academic debate on the correlation between ESG performance and financial performance remains opened.

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