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PREFACE

Environmental, Social, and Governance (ESG) for Online Marketplaces

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Introduction

Environmental, Social, and Governance (ESG) refer to the three central factors in measuring the sustainability and societal impact of an investment in a corporate entity (Friede et al., 2015; Ketter et al., 2020; Van Duuren et al., 2016; Vo et al., 2019). The environmental factor focuses on ecological issues such as climate change and pollution and water accessibility. The social factor tackles problems related to human rights, such as justice, equity, diversity, and social inclusion. Finally, the governance factor addresses issues that underlie corporate governance mechanisms.

ESG emphasizes social objectives beyond the traditional financial objectives of the companies and has a significant impact not just in production but, more importantly, on supply chain, resource allocation, marketing channels, and customer networking within and across global markets (Drempetic et al., 2020). The three-factor ESG has been considered salient in the entire society, including policymakers and social activists, and has become particularly critical in the field of investment with tools like transition finance, green bonds, and carbon markets (Al-Shaer & Zaman, 2019; Benlemlih et al., 2018). ESG metrics have been derived from reports and news articles, evaluating the company in different sustainability and social impact aspects (Benlemlih et al., 2018; Drempetic et al., 2020; Friede et al., 2015; Van Duuren et al., 2016).

Previous studies have mainly focused on the metrics and financial outcomes of ESG activities. Still, there is a lack of research on the impact of ESG around real marketplaces, where companies transact and interact with consumers and other stakeholders. More specifically, online marketplaces' ESG activities are becoming more critical, as we can see the rapid growth of successful online marketplaces worldwide (Keating et al., 2009; Liao et al., 2010; Schmitz & Latzer, 2002). Online marketplaces have opened new horizons, providing physical/digital products and offering a critical economic, social, and environmental impact. Online marketplaces have evolved, and their role extends beyond mere economic value creation. Sustainability has emerged as a critical aspect of these platforms. Scholars and practitioners are increasingly acknowledging the significant role these platforms play in driving sustainable development, focusing on social, environmental, and technological sustainability. These dimensions help online marketplaces become agents of change, promoting a more equitable, environmentally friendly global economy (Schaltegger et al., 2016).

It is essential to identify key drivers of addressing ESG in the context of online marketplaces, considering the differences from the traditional brick-and-mortar marketplaces. Indeed, online marketplaces have the responsibility, influence, and opportunity to provide products and services that are safer and more sustainable as the purchasing behavior of consumers becomes increasingly omnichannel (Lehrer & Trenz, 2022).

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Key concepts and related works

The concept of sustainability or sustainable development is traced back to the 1987 report "Our Common Future" produced by a United Nations (UN) commission. The term ESG originated in a report from 2004, "Who Cares Wins," authored by a group of financial institutions following an initiative by then-UN Secretary-General Kofi Annan and elaborated in a subsequent report by the United Nations Principles for Responsible Investment (UN PRI) (Gillan et al., 2021). According to UN PRI, responsible investment incorporates ESG factors into investment decision-making processes. Also known as sustainable, ethical, or impact investment, this strategy seeks to merge traditional financial evaluation methods with a market mechanism focused on investor-business sustainability (Gillan et al., 2021).

Sustainability in the context of business and economics is aligned with the Sustainable Development Goals (SDGs). In 2015, the UN adopted these goals in the document "Transforming Our World: The 2030 Agenda for Sustainable Development." The framework consists of 17 interdependent goals, including (1) No Poverty; (2) Zero Hunger; (3) Good Health and Well-being; (4) Quality Education; (5) Gender Equality; (6) Clean Water and Sanitation; (7) Affordable and Clean Energy; (8) Decent Work and Economic Growth; (9) Industry, Innovation, and Infrastructure; (10) Reducing Inequality; (11) Sustainable Cities and Communities; (12) Responsible Consumption and Production; (13) Climate Action; (14) Life Below Water; (15) Life On Land; (16) Peace, Justice, and Strong Institutions; and (17) Partnerships for the Goals (see https://sdgs.un.org/goals for more details). While SDGs provide a broader framework for sustainability, ESG offers specific criteria that businesses and organizations can use for implementing sustainability practices. ESG criteria are commonly used by investors to assess the sustainability and ethical impact of their investments (Van Duuren et al., 2016). Many companies report their ESG performance, demonstrating their contribution to the SDGs. In sum, ESG is a practical tool for evaluating companies' contributions towards achieving the SDGs.

Relatedly, corporate social responsibility (CSR) is an interchangeably used term in the context of sustainability of businesses, referring to corporate activities in social responsibility (Wang et al., 2015). While both may influence the internal processes and corporate practices for achieving sustainability, CSR is broader, voluntary efforts by companies to responsibly contribute to society, and ESG is more focused on measurable criteria that impact financial performance and risk of companies. Another critical distinction between the two is that ESG offers a quantifiable framework for external stakeholders and investors to assess a company's sustainability performance and directly incorporates the governance issue (Khaled et al., 2021). CSR covers governance concerns more implicitly, typically under its environmental and social dimensions (Gillan et al., 2021).

Consumers increasingly support businesses committed to these principles as awareness of sustainability issues grows. In general, online marketplaces and Internet platform companies also try to attract socially conscious consumers and bolster their reputation by adopting sustainable practices and addressing environmental and social responsibility. Industry stakeholders can foster positive societal change by embedding sustainable lifestyles and behaviors into their content. Embracing sustainable practices can spur innovation and open up novel business avenues, leading to new sustainable business models and revenue streams. As a result, many online marketplaces and Internet platform companies are integrating sustainability into their businesses. However, given their unique characteristics, online marketplaces may not be subject to similar ESG frameworks as conventional businesses. Despite the growing interest in the ESG impacts of online marketplaces, research in this area remains limited and often fragmented. This gap in research leads to a limited understanding of the specific ESG characteristics of online marketplaces and the mechanisms behind these characteristics (Fatimah et al., 2023; Li et al., 2023).

Studies have explored their role in environmental protection, poverty alleviation, and platform governance. For example, environmental sustainability is critical, with online marketplaces influencing the natural environment in various ways. While they can reduce the carbon footprint associated with traditional retail, they also pose challenges like packaging waste and increased energy consumption for data centers. Innovative business models, such as sharing platforms, have emerged within these marketplaces to promote sustainable consumption and reduce environmental impacts (Fatimah et al., 2023). Online platforms also significantly impact society. By leveraging digital technologies, these platforms enhance access to education, healthcare, and financial services for marginalized groups, thus contributing to a more inclusive society (Ketter et al., 2020). Despite the importance of these sustainability dimensions, comprehensive studies on the sustainability of online marketplaces are still relatively scarce.

The special issue and accepted papers

This special issue seeks to bridge this gap by closely linking the ESG framework to the sustainability efforts of online marketplaces. While the call to explore and examine the sustainability topic has been recently articulated in related information systems (IS) domains (Jabłoński et al., 2020; Ketter et al., 2020; Pan et al., 2021), relevant research streams and contributions in the online marketplace domain are dismal.

Therefore, this special issue aims to initiate and grow a research stream to examine the key aspects of online marketplaces from the perspective of ESG in different sectors and open avenues for future research and managerial implications. The special issue also seeks to analyze the importance of each ESG factor in online marketplaces. The ESG framework offers a comprehensive approach to assessing financial performance and businesses' societal and environmental impact. By applying this framework to online marketplaces, the special issue aims to provide deeper insights into ESG theories and practices and highlight areas needing further research and development. It also seeks to inform businesses, consumers, and policymakers about the challenges and opportunities in achieving a sustainable digital future.

In response to our call for papers, we received a considerable number of contributions. The number of submissions reflects the increasing attention paid to ESG implications in online marketplaces. After a rigorous peer-review process, three full-length papers were published in this special issue. Both theoretical and empirical papers contribute to the special issue.

The first article, co-authored by Lisa Gussek, Alex Grabbe, and Manuel Wiesche, is "Challenges of IT Professionals as Freelancers on Digital Labor Platforms: A Topic Model Approach" (Gussek et al., 2023). The study analyzed 2804 forum posts and over 20,000 comments from IT freelancers on online labor platforms to better understand the unique challenges that those IT freelancers face due to the specific nature of their work, requiring high skill levels and collaboration. The authors utilized a mixed method approach, combining the latent Dirichlet allocation and qualitative methods to identify and develop a model showcasing IT freelancing challenges. The study identified a set of specific challenges for IT freelancers, adding to the general challenges known in online freelancing. The findings help us better understand IT work on digital platforms and suggest areas for future research. It also provides insights for IT freelancers and platform owners to address the sustainability issues on online labor platforms.

The second article, co-authored by Tongfang Lyu and Qitaisong Shen, is "A Fuzzy Set Qualitative Comparative Analysis (fsQCA) Study on the Formation Mechanism of Internet Platform Companies' Social Responsibility Risks" (Lyu & Shen, 2024). This study seeks to fill a gap in the literature by developing a framework for the CSR risks faced by online platform companies. Using a qualitative comparative analysis, the study explores these risks. It suggests that online platforms can manage CSR risks using one of three methods: the "resource-experience dual capability model," the "sustained shareholder engagement model," or the "innovative edge model." The study dives into the specific actions and strategies that online platform companies should adopt to handle CSR effectively. It also sheds light on innovative strategies in platform organizations and contributes to the theoretical understanding of CSR mechanisms in this sector. Additionally, the findings help inform government policies on the sustainable development of online platforms and guide companies in tailoring their CSR risk management approaches to their unique characteristics.

The third article, co-authored by Liang Li, Mingxu Wang, and Xiaohao Zhou, is "Creating Value Beyond Commercial Outcomes: The ESG Practices of Online Marketplaces for Sustainable Development" (Li et al., 2023). This study looked closely at the ESG efforts of 13 Chinese online marketplace operators, assessing how their unique qualities and societal roles play into their ESG activities. By comparing their ESG initiatives with a standard framework, the study identified special features and methods used in ESG implementation by these online marketplaces. Highlights include their role in national development, fostering industrial ecosystems, and focusing on marginalized communities. The study also found that aspects like market transactions, digital innovations, and the ecosystems of participants are essential for understanding ESG practices in online marketplaces. The findings lead to a flexible ESG framework tailored for online marketplaces, emphasizing the need to consider both the social environment and the specific nature of each marketplace when creating ESG strategies.

Future research directions

This section discusses avenues for future research based on the implications of the special issue. Future academic research on ESG practices in online marketplaces can be explored through different layers, including operations and business models, stakeholder relations, and macro-level external factors. Each layer offers a unique perspective on the intersection of ESG, sustainability, online marketplaces, and business models.

Future research may examine how online marketplaces can align ESG practices with the broader SDGs (Fig. 1). This research could explore strategies online marketplaces can employ to integrate sustainability into their operations and business models while contributing to global sustainability agendas (Fatimah et al., 2023; Li et al., 2023). In this direction, researchers can develop and validate metrics for assessing ESG and SDGs at a company level. This may involve creating standardized frameworks for measuring the impact of ESG initiatives in the online marketplace context.

For example, developing ESG and sustainability indicators tailored for small and medium-sized enterprises (SMEs) and startups would address smaller businesses' unique challenges

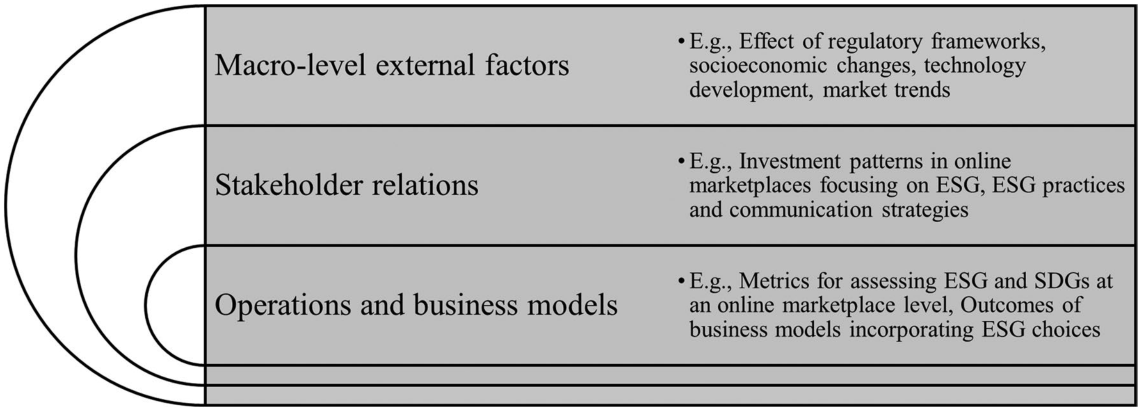

Fig. 1 Future research directions on different layers

and opportunities in implementing ESG practices (Drempetic et al., 2020). From a business model's perspective, researchers can focus on examining how different business models in online marketplaces incorporate ESG choices and drive sustainable growth. An example may include qualitative case studies of innovative business models that successfully integrate sustainability into their core operations.

Another layer of future research includes investigating the effects of ESG and sustainability practices on different stakeholders of online marketplaces, including operators, customers, employees, suppliers, governments, and communities. Most of all, it is critical to analyze how ESG and sustainability efforts affect online marketplaces' financial and operational performance (Friede et al., 2015). This could include assessing the costs of implementing these practices and evaluating their impact on business outcomes. Expanding the impact scope to different stakeholders, this research could explore how various ESG initiatives influence stakeholder relationships and perceptions.

An interdisciplinary approach is required to comprehensively understand this research direction. For example, future research may analyze investment patterns in online marketplaces focusing on responsible and sustainable investment strategies (Friede et al., 2015; Van Duuren et al., 2016). This research could explore how investment decisions are influenced by ESG performance and sustainability considerations. Researchers may explore the implications of both effective and poor ESG practices and communication strategies in online marketplaces in conjunction with the communication discipline. Research could focus on how these practices influence consumer trust, brand reputation, and long-term business success.

Finally, based on a holistic view, researchers can investigate the interplay between macro-level (e.g., regulatory frameworks, socioeconomic changes, technology development), industry-level (e.g., market trends, competitive landscape), and firm-level (e.g., business models) factors in promoting sustainable growth and environmental considerations in online marketplaces (Wang et al., 2015). This research could provide insights into how external and internal factors collectively shape ESG practices.

We invite future researchers to contribute to expanding our understanding of the impacts of ESG in the universe of online marketplaces and providing new knowledge and insights that will be critical for a wide range of stakeholders in the field.

Conclusion

We believe the special issue significantly contributes to the ESG in online marketplaces. We extend our sincere gratitude to all contributing authors for their excellent work. Each article selected for this special issue meets the journal's high standards and offers valuable insights into the literature. Special appreciation goes to the Editor-in-Chief of Electronic Markets, Rainer Alt, and the Executive Editor, Ramona Coia, for their invaluable support and guidance throughout the development of this special issue. We are also deeply grateful to the reviewers, whose dedication and detailed feedback significantly enhanced the quality of the papers in this issue. We hope the special issue serves as a foundation for both theoretical and practical advancements in this evolving and increasingly critical field.

Data Availability No datasets were generated or analysed during the current study.

References

Al-Shaer, H., & Zaman, M. (2019). CEO Compensation and sustainability reporting assurance: Evidence from the UK. *Journal* *of Business Ethics, 158*(1), 233–252. https://doi.org/10.1007/s10551-017-3735-8

Benlemlih, M., Shaukat, A., Qiu, Y., & Trojanowski, G. (2018). Environmental and social disclosures and firm risk. *Journal of Business Ethics, 152*(3), 613–626. https://doi.org/10.1007/s10551-016-3285-5

Drempetic, S., Klein, C., & Zwergel, B. (2020). The influence of firm size on the ESG Score: Corporate sustainability ratings under review. *Journal of Business Ethics, 167*(2), 333–360. https://doi.org/10.1007/s10551-019-04164-1

Fatimah, Y. A., Kannan, D., Govindan, K., & Hasibuan, Z. A. (2023). Circular economy e-business model portfolio development for e-business applications: Impacts on ESG and sustainability performance. *Journal of Cleaner Production, 415*, 137528. https://doi.org/10.1016/j.jclepro.2023.137528

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment, 5*(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

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

Gussek, L., Grabbe, A., & Wiesche, M. (2023). Challenges of IT freelancers on digital labor platforms: A topic model approach. *Electronic Markets, 33*, 55. https://doi.org/10.1007/s12525-023-00675-y

Jabłoński, M., Timmers, P., & Sarkis, J. (2020). Sustainability in business models in the network economy. *Electronic Markets, 30*(4), 675–678. https://doi.org/10.1007/s12525-020-00444-1

Keating, B. W., Quazi, A. M., & Kriz, A. (2009). Financial risk and its impact on new purchasing behavior in the online retail setting. *Electronic Markets, 19*(4), 237–250. https://doi.org/10.1007/s12525-009-0021-3

Ketter, W., Padmanabhan, B., Pant, G., & Raghu, T. (2020). Addressing societal challenges through analytics: An ESG ICE framework and research agenda. *Journal of Association for Information Systems, 21*(5), 1115–1128. https://doi.org/10.17705/1jais.00631

Khaled, R., Ali, H., & Mohamed, E. K. (2021). The Sustainable Development Goals and corporate sustainability performance: Mapping, extent and determinants. *Journal of Cleaner Production, 311*, 127599. https://doi.org/10.1016/j.jclepro.2021.127599

Lehrer, C., & Trenz, M. (2022). Omnichannel business. *Electronic Markets, 32*(2), 687–699. https://doi.org/10.1007/s12525-021-00511-1

Li, L., Wang, M., & Zhou, X. (2023). Creating value beyond commercial outcomes: The ESG practices of online marketplaces for sustainable development. *Electronic Markets, 33*, 62. https://doi.org/10.1007/s12525-023-00682-z

Liao, C. C., Palvia, P., & Lin, H. N. (2010). Stage antecedents of consumer online buying behavior. *Electronic Markets, 20*(1), 53–65. https://doi.org/10.1007/s12525-010-0030-2

Lyu, T., & Shen, Q. (2024). A fuzzy-set qualitative comparative analysis (fsQCA) study on the formation mechanism of Internet platform companies' social responsibility risks. *Electronic Market, s, 34*, 5. https://doi.org/10.1007/s12525-023-00686-9

Pan, S. L., Carter, L., Tim, Y., & Sandeep, M. (2021). Digital sustainability, climate change, and information systems solutions: Opportunities for future research. *International Journal of Information Management*, 102444. https://doi.org/10.1016/j.ijinfomgt.2021.102444

Schaltegger, S., Hansen, E. G., & Lüdeke-Freund, F. (2016). Business models for sustainability: Origins, present research, and future avenues. *Organization & Environment, 29*(1), 3–10. https://doi.org/10.1177/1086026615599806

Schmitz, S. W., & Latzer, M. (2002). Competition in B2C e-commerce: Analytical issues and empirical evidence. *Electronic Markets, 12*(3), 163–174. https://doi.org/10.1080/101967802320245938

Van Duuren, E., Plantinga, A., & Scholtens, B. (2016). ESG integration and the investment management process: Fundamental investing reinvented. *Journal of Business Ethics, 138*(3), 525–533. https://doi.org/10.1007/s10551-015-2610-8

Vo, N. N. Y., He, X., Liu, S., & Xu, G. (2019). Deep learning for decision making and the optimization of socially responsible investments and portfolio. *Decision Support Systems, 124*, 113097. https://doi.org/10.1016/j.dss.2019.113097

Wang, Q., Dou, J., & Jia, S. (2015). A meta-analytic review of corporate social responsibility and corporate financial performance: The moderating effect of contextual factors. *Business & Society, 55*(8), 1083–1121. https://doi.org/10.1177/0007650315584317