

Contributions to Management Science

Pratik Arte · Yi Wang · Cheryl Dowie ·
Maria Elo · Salla Laasonen *Editors*

Sustainable International Business

Smart Strategies for Business and
Society

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Contributions to Management Science

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ISSN 1431-1941 ISSN 2197-716X (electronic)
Contributions to Management Science
ISBN 978-3-031-43784-7 ISBN 978-3-031-43785-4 (eBook)
<https://doi.org/10.1007/978-3-031-43785-4>

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Foreword

The United Nations Sustainable Development Goals (SDGs) encompass a broad range of targets to promote economic, environmental, and social sustainability across the globe. Goals to protect and restore ecosystems, conserve biodiversity, combat climate change, reduce poverty and create employment opportunities, prioritize social inclusion and equality are some of the ways to contribute to a more sustainable and equitable future. In this book, the editors and contributing authors have attempted to understand the potential impacts of the SDGs, to study some of the contextual conditions that influence how SDGs are prioritized, and to move beyond mere financial gains to embrace sustainable practices.

Forging a path to ensure a harmonious coexistence is critical in our pursuit of a sustainable future. Economic, environmental, and social sustainability are inextricably intertwined, and navigating through the challenges in our modern world requires active participation, a collaborative and interdisciplinary approach by governments, businesses, organizations, and individuals. The concept of sustainability acknowledges the interdependence of these three main pillars and challenges us to rethink our patterns of consumption, resource allocation, and the consequences of our actions. Each chapter of the book reminds us of our role as catalysts for change and underscores the critical importance of international business as an agent of transformation in the areas of supply chain management, renewable energy, waste management, internationalization of firms, and social justice, among other things.

This book is an essential reading for academics, practitioners, and policymakers interested in tackling these critical and timely issues. The editors have arranged an excellent set of chapters from diverse authors around the world. The book is organized into three parts: economic sustainability, environmental sustainability, and social sustainability. In respect of economic sustainability, many regions of the world are currently struggling with a tension between stakeholder versus shareholder capitalism. Should it be the responsibility of corporations to consider sustainability, or should corporations only be held accountable to their shareholders and sustainability issues left to the hands of individuals? On the one hand, some scholars view corporate sustainability efforts as an agency problem, as corporate management

does not have the information, time, and skills to decide where to spend on sustainability on behalf of its investors in a way that is more efficient than what investors themselves could do. On the other hand, other scholars view sustainability as an essential part of the purpose of the corporation, since corporate management does have access to information, supply chains, and resources that individuals do not have, and there are positive externalities from corporate efforts to promote sustainability. Networks and social media can help to promote those externalities and encourage others in the sustainability effort, but there are issues of fake news and other problems that corporations must wrestle with. Novel insights into these issues are provided in the first part of this book.

This book provides equally important insights into environmental and social sustainability. Environmental sustainability encompasses green entrepreneurship both locally and internationally and the circular economy. Also, there are measurement issues such as weather indices, and dealing with fake measurement issues that involve greenwashing. Management of environmental sustainability involves insurance and regulatory frameworks as well as sustainable development goals. Social sustainability encompasses ethics, fairness, inequality, and human rights matters. This book covers a diverse set of chapters that tackle these critical problems that are present across the world.

Successful management of sustainability is critical to the future of our planet. By critically assessing these issues, the editors and authors of this book have helped us take a significant step forward. I encourage academics, practitioners, and policymakers to reflect on the issues and analyses herein.

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25 June 2023

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Sustainability in International Business: An Introduction



Pratik Arte , Yi Wang , Cheryl Dowie , Maria Elo ,
and Salla Laasonen 

1 Background

In the year 2015, the United Nations (UN) presented 17 Sustainable Development Goals (SDGs) to be achieved by 2030. The goals were set following a wide-scale consultation with stakeholders including governments, private firms, academic institutions, consumers, and non-governmental organizations. The SDGs are a blueprint for achieving a better and sustainable future for all. In its SDG agenda, the UN (2023) laid a special emphasis on international business as an agent of transformation. Despite this motivation, international business literature “has not kept pace with the expanding role of companies in sustainable development” (van Zanten & van Tulder, 2018, p. 209). There is an overwhelming majority of studies focusing on developed economies (Kolk & van Tulder, 2010) when regions such as the Global South are in need of scholarly attention along the lines of sustainable development (Cruz & Boeche, 2010; Idemudia, 2011). Moreover, various academic outlets have laid a greater emphasis on ethics and responsible governance than on corporate social responsibility (CSR), sustainable development, and environmental

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issues (Egri & Ralston, 2008). To summarize, it is safe to conclude that eight years since the introduction of the SDGs, international business scholars are yet to realize their full potential.

Sustainable International Business is a new book that adopts a global approach to studying international business and its implications for sustainable development. It stimulates research and rethinking among scholars and practitioners to understand how businesses operate internationally into lucrative markets, its role in sustainable business growth, glocal value creation, and economic development. The book covers many topics and issues that one would be familiar within international business. It provides insights into how international firms, entrepreneurs, family businesses, and other stakeholders balance the act of value creation and sustainable business. The book covers three key pillars of sustainability: economic, social, and environmental. It addresses capacity building and the grand challenges that international business needs to develop solutions for. While this book could be comprehensive and easy to understand for undergraduates and graduates, it will need supplementary resources (e.g. HBR, FT, The Economist, etc.) to keep abreast with the current situations within the international context.

The book is structured in three parts, each representing the three pillars of sustainability. We have carefully selected 19 original works after a rigorous double-blind review process. The 19 chapters are spread evenly across the three parts of the book. The authors and topics provide a wide international representation and illustrate multi-layered sustainable business perspectives that cover developing, emerging, and developed country contexts as well as multiple directions of international business flows. In terms of methodology, the chapters range from theoretical and conceptual pieces to quantitative empirical works. Authors that have conducted systematic literature reviews have adopted both qualitative (e.g. chapter “Analyzing Accountability of Weather Index Insurance Service in Attainment of Sustainable Development Goals: A Sustainable Accounting Perspective”) and quantitative (e.g. chapter “Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda”) methods. Similarly, the empirical chapters have adopted both qualitative and quantitative methods. Some qualitative chapters have relied on secondary data (e.g. chapters “Regaining Legitimacy in an MNC After a Socio-ecological Crisis: An Un(smart) Business Strategy?” and “Multinational Enterprises as Bridging Institutional Actors Towards Sustainability”) to construct a case-study, others have analysed primary data collected through interviews (e.g. chapters “Network Ties and Opportunity Recognition in SME Internationalization in the Social Media Context” and “Why Am I (Not) Struggling? Career Prospects of Migrant Academics at British and Finnish Higher Education Institutions”). Further, authors of chapters “Sense or Sensibility? Managerial Sensemaking and Responsible Business Practices in International Small and Medium-Sized Enterprises” and “Immigrant Entrepreneurs Out of the Shell? An Investigation of Individual Characteristics on the Propensity to Seek External Advice” have survey data to conduct quantitative analyses.

In terms of geographical diversity, the authors represent institutions from both Global South and Global North. The richness of geographical diversity is further

highlighted by representation of institutions from thirteen countries including Finland, Greece, Italy, Peru, South Africa, Spain, Sweden, Turkey, U.A.E., U.K., U.S. A, and Vietnam. The scope of analysis of the chapters also represents a rich geographic diversity where the focus has been on low-income countries/regions (e.g. chapters “Value Creation Impact: Role of Stakeholders in the Development of Sustainable Foreign Trade” and “Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda”), middle-income countries/regions (e.g. chapters “Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability” and “Refurbished Products and Green Mindfulness: A Qualitative Study from an Emerging Market”), and high-income countries/regions (e.g. chapters “Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability” and “Wine Tourism as a Catalyst for the Sustainable Development Goals: The Case of Casa Sicilia Winery”).

The book follows a logical structure that is intended to provide readers with an intellectually stimulating experience. Part 1 comprises 6 chapters that contribute to economic sustainability.

2 Part 1: Economic Sustainability

With the recent global pandemic, individuals and society are increasingly worried about large-scale job losses, growing social insecurities, and uncertainty in financial markets (Choi & Ng, 2011). Sheth et al. (2011) have delineated two distinct aspects of economic sustainability. The first pertains to traditional economic and financial performance, while the second concerns the economic interests of external stakeholders such as economic well-being and living standards in local community, broader society, and planet as a whole. Firms are increasingly called upon to contribute to the broader economic sustainable development, and this call is even more salient for internationalizing firms given their global activities in different institutional environments. In chapter “Realisation of SDGs in Africa: An Impactful Political CSR Approach”, Sorour and El-Sakhawy have attempted to answer the question of: How the constructs of SDGs and political CSR (PCSR) for development can be conceptualized in relation to the African context to maximize the impact of international businesses in society? Through a multi-theoretical framework by integrating political CSR, neo-institutional theory, and pragmatic and legitimacy notions, the authors develop a conceptual model that shows how IB can contribute to the achievement of SDGs in an African context. Chapter “Value Creation Impact: Role of Stakeholders in the Development of Sustainable Foreign Trade” by Alvarez-Risco and colleagues aims to identify the impact of the role of various stakeholders in the development of sustainable foreign trade incorporating the SDGs. The chapter shows that the development of various sustainable strategies significantly impacts corporate reputation and provides better management in various areas of a company.

At the same time, sustainability in an organization increases competitive advantage by generating an improvement in global value chains, as well as the perception of consumers and other stakeholders.

In chapter “Reshaping the World’s Supply Chain? A Case Study of Vietnam’s PAN Group Adopting the Circular Economy Concept”, Bui and colleagues addressed the question of, “What should Vietnam do in terms of economic and business strategies to navigate its economy out of the pandemic crisis and position itself in the upcoming new world order”? The authors develop a conceptual framework that allows emerging economies to embrace the concept of circular economy and develop resilient and self-reliant supply chains. The paper advocates that incorporating circular economy concept enables a supply chain system that shifts from a quasi-linear one-way supply chain arrangement to a honeycomb-like web of circular structure. In chapter “Integration of Internal Audit and Sustainability Functions: A Business Model Suggestion”, Demir analyses the dyed fabric purchasing processes of a company producing garments. It is determined that there were significant disruptions and inefficiencies in the purchasing processes. Since those problems are the subject of both sustainability studies and the work of the internal audit department, a business model is proposed integrating the two functions. With this model, it is aimed to bring together different areas of expertise, prevent overlapping and duplication of tasks, and improve interdepartmental communication.

In chapters “Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability” and “Network Ties and Opportunity Recognition in SME Internationalization in the Social Media Context”, Kusi Appiah explores the critical, yet sensitive, link between social media and the internationalization of firms. In chapter “Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability”, Appiah analyses how internationalizing firms mitigate legitimacy challenge caused by fake social media news. The author argued that fake news on social media adversely impact legitimacy of internationalizing firms in a foreign market because they impair consumers’ brand trust. Moreover, the author contends that social media capability of internationalizing firms can mitigate the negative impact of social media fake news on international legitimacy because it can keep the consumers and other stakeholders in the foreign markets well-informed. In chapter “Network Ties and Opportunity Recognition in SME Internationalization in the Social Media Context”, Appiah analyses how internationalizing SMEs strengthen their organizational-level network ties in the social media context and the associated entrepreneurial opportunity realization in a foreign market. Drawing from four Finnish case companies, the author found that tactical social media initiatives such as tweeting customers’ stories, retweeting stories, posting comments, and commenting on posts by followers are likely to strengthen network ties in dimensions such as duration, intimacy, and reciprocity. Moreover, social media help SMEs recognizing international opportunity such as expanding into foreign networks, creating brand awareness, and accessing to market information.

3 Part 2: Environmental Sustainability

Environmental or ecological sustainability has traditionally been at the core of business and society having to re-evaluate the negative impact they have on the environment. At the heart of the dilemma of environmental degradation lies the economic notion of externalities; costs that cannot be attributed in monetary terms. The biosphere has long served the role of an externality to human development, with overexploitation leading to the tragedy of the commons (Hardin, 1968). Up until the environmental awakening in the 1970s, nature was considered as an unlimited resource, or at worst, an open-ended sewer. Despite concerted scientific efforts to challenge the paradigm of unlimited growth, we have, to date, not been able to revise our exploitative incentive to externalize the natural environment.

Fast forwarding to the 1980s and 1990s, the environmental harm caused by industrial processes began to make way to the general awareness of citizens, especially in the industrialized countries. The era of end-of-pipe solutions, eco-efficiency, the triple bottom line, and reducing negative environmental impact still form the basis for the majority of corporate environmental practices today. Environmental management, and the notion that the environment can indeed be managed, became an institutionalized corporate practice. Going for the low-hanging fruit of pollution prevention has taken corporations well into the new millennium, and as also Matindike (chapter “Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda”) finds, green solutions are coupled with its unwanted companion green-washing. Similarly, as Leite and Johnstone discuss in chapter “Regaining Legitimacy in an MNC After a Socio-ecological Crisis: An Un(smart) Business Strategy?”, corporate communication strategy and social licence to operate remain very relevant challenges when addressing negative environmental impact, especially in extractive industries.

At the global level, we know that insufficient environmental protection, treating nature as an externality and sewer has led to serious and on some dimensions irreversible harm. The warnings of climate science and climate change have been slow and unsuccessful in motivating for radical change, and we now have scientific evidence of humanity exceeding some of the safe thresholds of the nine critical planetary boundaries (Rockström et al., 2009). The planetary boundary framework, brought forward by the Stockholm Resilience Centre, addresses the thresholds, feedback loops, resilience, and uncertainties related to safe operating spaces (green zones), the zones of uncertainty and where a likely threshold is to exist (yellow zones), and high-risk areas. Since the 2009 introduction of the boundary framework, we have only continued to move closer to high-risk areas (Steffen et al., 2015), with the latest worrying news of exceeding the safe threshold on chemical pollution and plastics (Persson et al., 2022). Given that climate change and environmental degradation have not been motivating enough, scientists are increasingly highlighting the adverse effects of climate change and environmental degradation on human health. The 2022 report of the Lancet Countdown on health and climate change (Romanello

et al., 2022) quite provocatively yet accurately states that “the health of people around the world is at the mercy of a persistent fossil fuel addiction”.

In conclusion, the scientific evidence on the state of the environment continues to point towards degradation and overexploitation. Therefore, all the solutions solving negative environmental impact continue to be necessary to develop and adopt further. Eco-efficiency and green entrepreneurship (chapter “Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda”), sustainable business practices (chapters “Wine Tourism as a Catalyst for the Sustainable Development Goals: The Case of Casa Sicilia Winery” and “Sense or Sensibility? Managerial Sensemaking and Responsible Business Practices in International Small and Medium-Sized Enterprises”), circular solutions (chapters “Exploring Circular Economy in International Businesses Through the Lens of Sustainability” and “Refurbished Products and Green Mindfulness: A Qualitative Study from an Emerging Market”), and financial and digitalization instruments (chapters “Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda”) all continue to be needed to create the necessary transformation towards a more environmentally sustainable world.

4 Part 3: Social Sustainability

Social sustainability refers to the ability to meet the needs of members of a society, while ensuring social justice and equity are met (Michalos, 2014). Prioritizing human rights, equality, and inclusion and creating an environment where individuals have access to the basics like education, healthcare, and employment opportunities are important. While sustainability has achieved prominence in many areas, the social dimensions are often the neglected component of sustainability (Cuthill, 2010; Kandachar, 2014). On the other hand, socially sustainable societies can foster stronger social connections, trust and encourage engagement and participation among individuals and groups, to address present societal challenges such as poverty, discrimination, marginalization, gender equality, and other human rights’ issues. Studies support the notion that this participatory approach promotes inclusivity, empowers marginalized voices, and fosters a sense of responsibility within communities (Dillard et al., 2008; Koning, 2001).

Social sustainability has gained increasing interest in private and public sector as well as in our societies for good reason. Its impacts are connected and spread in a society influencing its fundamentals and functioning. The United Nations Global Compact defines social sustainability as a phenomenon that “is about identifying and managing business impacts, both positive and negative, on people”. This links to the responsibility and accountability of private sector, in international business and entrepreneurship as well as in local business operations. Hence, the relationships and stakeholder management of companies are crucial as companies have a direct influence on their employees, customers, partners, value chain members, nature,

and the communities around them. Recently, the turmoil experienced in global supply chains highlighted the sensitivities of supply chain context in terms of social sustainability. Whether the trigger is Covid-19 or an accident in the Suez channel, the impact diffuses across countries. This underlines the need to address social dimensions beyond measures related to the flow of products and goods (Hutchins & Sutherland, 2008).

The global proposal from the United Nations, known as the 2030 Agenda, requires global action to be taken by the governments, businesses, and societies to achieve shared prosperity and sustainability goals (Manzi et al., 2010). It comprises 17 sustainable development goals (SDGs) that were released in 2015. This agenda sees migration as a key driver of sustainable development. Migration involves highly skilled individuals seeking better economic opportunities, and in turn contributing to the economic development and innovation in their host countries. It has significant social, economic, and cultural implications for both the migrants and the communities they become a part of. Contributing to the diversity and multiculturalism of societies can stimulate economic growth through labour market dynamics and further foster cultural exchange and enrichment (Yong, 2019). Migration is thus multifaceted as it involves numerous stakeholders including private and public sector organizations, migrants, and their communities as well as civil society.

Migration functions as a source of skills and labour market resource-base, but it also brings with it different capitals and investments. In addition, migrants shape markets and contribute with their diversity and cultural plurality to the markets, innovation, and development. These mechanisms are seen to bring benefits and positive outputs when resources are appropriately employed and institutions are functioning well, supporting safe, orderly, and regular migration as the Global Compact suggests. However, when migration governance fails the results tend to be negative, and these may reflect not only the individual migrant level, but also organizations and respective societies. The Global Compact for Safe, Orderly and Regular Migration underlines the multi-dimensional reality of migration that requires orchestrated policies and approaches (International Organization for Migration, 2023). Human rights and migration are deeply linked as migrants are not only successful talents working as international entrepreneurs and investors or in highly skilled positions, but they also represent subjects for unsustainable, illicit practices and criminality, such as exploitation and human trafficking.

Exploitative working conditions, low wages, lack of legal protection, and limited access to justice systems can trap individuals in situations of labour exploitation, including cases of human trafficking. For example, in Europe, the victims trafficked are mainly adults who are trafficked for labour or sexual exploitation. The vulnerabilities are higher for females, as women and girls represent a significant majority of over 80% of all trafficked individuals. This vulnerability is rooted in various factors, including gender inequality, limited access to resources and other support systems, socio-economic disparities, and so on. The counter trafficking data collaborative (CTDC) data collaboration of IOM shows that much of human trafficking is related to labour and linked to even close recruiter relationships while the phenomenon of labour exploitation per se has increased over time (CTDC, 2023). Interestingly,

some of these business practices may evolve under the lens of institutions and governance, partly due to lack of resources and partly due to lack of understanding of the phenomenon and its relevance (Elo & Juntunen, 2021). These developments illustrate the unsustainable shadow of business and the fact that these mechanisms deserve more attention due to their negative and destructive impact on society and economy. On the positive side, many countries and businesses benefit greatly from their migration and diasporas abroad, which contribute to home country business and economic, social, and institutional development (Elo & Riddle, 2019; Rana & Elo, 2017).

Businesses play a particularly important role with their social sustainability efforts that address social development, gender, diversity, inclusion, poverty, disability, and other forms of inequalities. Business ethics and moral values may foster not only market perceptions of the firm, but also the employer's attractiveness and image. Furthermore, a positive engagement may alleviate internal conflicts, risks, and productivity issues and in international operations sustainable business engagement may contribute to transnational betterment. Social enterprises and non-governmental organizations are particularly relevant actors addressing such problems and provide ample examples of fruitful business engagement even in highly complicated, high psychic distance contexts and environments, like those in the least developed economies.

The UN Global Compact suggests that business gets engaged in:

- Improving the lives of the people who are their stakeholders, e.g., by decent jobs, goods and services and by making value chains more inclusive.
- Contributing to strategic social investments and fostering public policies and programmes on social sustainability.
- Partnering across actors and markets for pooling strengths that make positive impact (UN Global Compact, 2023).

Yet, many organizations face claims of white- and greenwashing while many of them are trying to develop organizational strategies around social sustainability and migration through their corporate social responsibility strategies, equity, diversity, and inclusion strategies, corporate social performance assessments, and corporate citizenship endeavours. Organizational strategies are intertwined reflecting a firm's overall orientations, values, and plans. Strategies involve planning, goals and employing respective resources and capabilities to achieve those goals. Typically, strategies related to internationalization, geographic diversification, corporate governance, market and non-market strategies, talent and resource strategies, communication strategies and different forms of philanthropy and even activism form challenges how to tackle with the plethora of stakeholders and complexities while working towards the goals and objectives given. As Napier et al. (2023) note, the new global dynamics, such as geopolitics, digitalization, and activism, may shape corporate social performance in multiple ways. These dynamics create a context in which corporate social performances are strategic imperatives for businesses as companies are increasingly recognizing the need to integrate social and environmental considerations into their operations and respond accordingly to global issues

that can help ensure their actions align with the broader societal expectations (Napier et al., 2023). They also highlight that today corporate social performance must be substantive, unequivocal, inclusive, and efficient calling for practical and operational approaches. In their model, “value creation for the firm” and “for society” is the highest organizational achievement and goal (Napier et al., 2023, p. 68).

In a nutshell, private business plays a central role in developing solutions that create such value through business operations, investments, and entrepreneurship. They are also accountable for their activities in front of their stakeholders, similarly as institutions (van Zanten & van Tulder, 2021). Especially in international and transnational context, the complexities of addressing inequalities and vulnerabilities require particular care as one seemingly positive action in one country may actually generate a negative impact in the other country. Issues such as human stickiness impediments, developing country brain drain, human trafficking, and workplace exploitation show how complex and interconnected these flows and impacts are and who little understood the real-life impacts tend to be (Emmanuel et al., 2019).

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Part I
Economic Sustainability

Realisation of SDGs in Africa: An Impactful Political CSR Approach



M. Karim Sorour and Ahmed El-Sakhawy

Abstract The realisation of the Sustainable Development Goals (SDGs) requires input from international business (IB) as a key stakeholder within the society. In an African context, given the sheer complexities impeding sustainable progress towards the SDGs, this input is critical. Whilst corporate social responsibility (CSR) can facilitate IBs' contribution, the literature shows that many IB work on ad hoc CSR activities without necessarily considering how far these activities yield tangible developmental benefits. This conceptual paper adopts a theory synthesis approach to answer the following question: *How the constructs of SDGs and Political CSR can be conceptualised in relation to the African context to maximise the impact of international businesses in society?* Through a multi-theoretical framework based on the PCSR, neo-institutional theory, and legitimacy notions, the rejuvenating SDGs in Africa model shows how IB can contribute to SDGs in their host country via adopting a PCSR approach. In an emerging participatory governance model, IB can achieve moral legitimacy through compliance with normative institutions introduced by the government and society. This model is evolving in nature and is based on an ongoing dialogue between policy makers and IB to formulate effective strategies to ensure PCSR activities are yielding benefit to the society.

1 Introduction and Research Background

In 2015, 10% of the world's population lived in extreme poverty with 11% malnourished, 5% had no access to basic healthcare services, 35% of women were subject to domestic or sexual violence, 36% lacked basic sanitation facilities, and 15% did not have electricity (Kulkarni & Aggarwal, 2022). These disturbing figures are all related to the so-called grand challenges, a term which covers global hunger,

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poverty, labour exploitation, diseases, corruption, inequality, gender biases, climate change (Jamali et al., 2021). In this context, sustainable development score for Africa was more startling with poverty rates close to 59% in many countries at the rate of 3.2\$/day (UNCTAD, 2021). Given the grand nature of these ongoing sustainable development challenges, the world leaders have agreed to combat these staggering conditions at the 2012 United Nations Conference on Sustainable development (Rio +20) which was articulated in the outcome document “*The Future We Want*” indicating the benefit of creating the sustainable development goals (SDGs) as a focused and coherent approach to address these challenges and become the successor of the Millennium Development Goals (MDGs) (UNECA, 2015). The development of the SDGs was of crucial importance as the continent was off track in achieving most of MDGs goals, with slow progress achieved in relation to health, gender, and women empowerment indicators, whilst poverty, inequality and extreme hunger, basic infrastructural service, quality of education as well as poor social protection remain a tremendous responsibility that the SDGs must address (UNECA, 2015).

In 2019 (just before COVID-19), Africa scored an SDG progress score of 52.8% highlighting a gap of more than 47%; indeed, different African regions have performed slightly differently, with North and South Africa showing higher progress scores compared with East, West, and Central regions (ASDGR, 2022). Unfortunately, COVID-19 as well as the Ukraine-Russia crisis has further slowed down the progress on achieving the SDGs with the African GDP expected to decline by a negative of 3.3% score (ASDGR, 2022). Of note, the Ukraine-Russia war has a negative direct impact on Africa in terms of “trade disruption, food and fuel price spikes, macroeconomic instability, and security challenges . . . At the same time, food grain prices continued to rise even higher as supply disruptions from Russia and Ukraine (actual and anticipated) rocked global markets . . . the pass through of consequent inflation will be swift and hard-hitting, especially for vulnerable groups like women and children” (UNDP, 2022, p.i). Overall, the latest Africa SDG report published in November 2022, concludes that most African countries are currently struggling to achieve most of their SDG targets (ASDGR, 2022). Clearly, measures have to be taken to enhance domestic resources mobilisation, as Africa requires around \$200 billion annually to achieve required progress towards their SDGs with climate finance adaptation costs about \$30 to \$50 billion annually, as such the “*path towards sustainable development requires significant policy shifts and the scale of resources required . . . will be immense*” (UNECA, 2015, p. 67).

Sustainable development generally refers to “*a development which meets the needs of the present without compromising the ability of future generations to meet their own needs*” (WCED, 1987). Sustainable development concept is based on three interlinked dimensions: economic growth, social development, and environmental sustainability (UNECA, 2015; Harris, 2009; Nwozor et al., 2021). As increasing economic growth incurs inevitable environmental and social costs (Muniz & Cruz, 2015), sustainable development can only happen if economic growth is socially sustainable and environmentally responsible. As with the increased GDP growth comes an increased pressure on “*biodiversity, climate change and the*

undermining of human livelihoods” (Martines-Alier, 2012, p. 62). This requires making radical political and environmental changes that alleviate serious socio-environmental impediments (Muniz & Cruz, 2015) for Africa and the developing world in general. Not only that, but to mobilise all members of the society to contribute towards the UN 2030 agenda (Bardal et al., 2021) including “*public, private sector, civil society, youth organizations, and women’s organizations [with] ... Leaders in all sectors of the economy and society must actively steer the sustainable development agenda and ensure commitment by all stakeholders*” (UNECA, 2015, p. 68).

One pivotal concept which has received an increased attention in the extant literature as a facilitator in the realisation of the SDGs is corporate social responsibility (CSR) (Kulkarni & Aggarwal, 2022; Huber & Gibert, 2017; Mitra & Chatterjee, 2019; Rendtorff, 2019). CSR can be defined as an umbrella term that encompasses a range of concepts and practices; however, the essence of CSR is that businesses should have responsibility for their impact on natural environment and society which goes beyond the letter of law (Blowfield & Frynas, 2005, p. 503). While the conventional CSR theorising and practices could potentially compliment governments’ efforts to achieve the SDGs targets, the complexity of the grand challenges in hand, renders it ineffective (Kulkarni & Aggarwal, 2022; Jamali et al., 2021; Blowfield & Doian, 2014). This is because, CSR can be perceived as a facet of “*economic and cultural imperialism by local suppliers in developing countries*” (Jamali et al., 2015, p. 460) where international companies set the target price and quantity in response to fierce competition and then pass these demanding requirements to local suppliers, hence creating small margin for nearly ceremonial CSR activities.

Therefore, CSR is to a great extent overshadowed by instrumental short-termism which focuses on the bottom line and is inspired by the business case for CSR, instead of genuinely contributing to the sustainable development narrative (Adelopo et al., 2015; Sorour et al., 2021a). Furthermore, the Western-centric assumptions and construction of the CSR concept are problematic in the context of developing countries, “*where notions of ‘private’ sector, ‘civil society, ‘stakeholders’ and ‘transparency’ are not always clearly delineated*” (Sorour et al., 2021b, p. 89). The peculiarity of developing countries context, i.e., such as Africa adds a further dimension of complexity based on the different set of institutional factors and unique socio-political dynamics (Sorour et al., 2021a); hence, non-western contexts provide a fertile ground for exploration of how CSR could be conceptualised differently to enable impactful contribution of businesses to the SDGs in Africa. Due to these impediments, this CSR perspective is insufficiently utilised in practice (Kulkarni & Aggarwal, 2022) and not adequately understood in the extant literature (El Alfy et al., 2020), highlighting a gap in our understanding and conceptualisation of how CSR could practically work as a sustainable development tool and hence facilitate the realisation of the SDGs in an African environment. As such it becomes significant to address such gap in the literature and to find some answers to the fundamental question of how CSR programmes could yield “*tangible development benefits in communities*” (Jamali et al., 2017, p. 3).

Against this background, this chapter focuses on the role of a key stakeholder group, international businesses in Africa and how their CSR can be an effective tool which systematically contribute to social development and hence to the SDGs. Here, international businesses could align their CSR plans with national SDGs priorities. This conceptual paper argues that the role of international business in the realisation of SDGs in Africa could be effective, if understood through a combined theoretical lens (Sorour et al., 2021a) that encompasses the political CSR (PCSR) framework (Scherer & Palazzo, 2011), the neo-institutional theory, and the notions of organisational legitimacy (Suchman, 1995).

First, the PCSR concept distances itself from the neo-liberal notions of economic rationality that perceives businesses as economic rather than political player in the economy (Scherer & Palazzo, 2011). It posits that businesses should perform the two roles, i.e. economic and political, and give back to the society which in the first place offered them the license to operate and profit from its members. PCSR “... entails those responsible business activities that turn corporations into political actors, by engaging in public deliberations, collective decisions, and the provision of public goods or the restriction of public bads in cases where public authorities are unable or unwilling to fulfil this role” (Scherer et al., 2016 p. 276). The PCSR concept captures the dynamic relationship between international businesses and the institutional context which affects and is affected by these businesses as political actors (Scherer, 2018). As political actor, international businesses play an effective role to address deficits in public services (normally considered as a state responsibility) (Sorour et al., 2021a).

Second, CSR expressions must be understood within the African institutional environment where these businesses operate and respond to institutional pressures (Scott, 2014) rather than considered in institutional vacuum. Here, neo-institutional theory is key to understand the idiosyncrasies of the institutional environments in which these businesses operate. Third, it is important to note that a key motivation for international businesses’ engagement in enhancing the social welfare of the communities in which they operate is to achieve moral legitimacy (Scherer & Palazzo, 2011; Scherer, 2018; Sorour et al., 2021b). This is a type of legitimacy which goes beyond the logic of instrumentality and the notion of pragmatic legitimacy¹ which no longer suffices as an acceptable means of giving back to the society (Brammer et al., 2012; Adelopo et al., 2015; Marquis et al., 2016; Sorour et al., 2021a).

Given that international businesses might not be familiar with the developmental priorities in their host country, the SDGs would offer a distinct opportunity for international businesses to impactfully contribute to sustainable development. Specifically, the national 2030 agendas provide a detailed plan for a country’s priorities

¹Moral legitimacy reflects a positive normative evaluation of the organization and its activities (e.g. Aldrich & Fiol, 1994; Parsons, 1960). Unlike pragmatic legitimacy, moral legitimacy ... rests not on judgments about whether a given activity benefits the evaluator, but rather on judgments about whether the activity is “the right thing to do” (Suchman, 1995, p. 579).

to achieve the SDGs by 2030. As such, this could facilitate international businesses' engagement in development through explicitly aligning their CSR plans with national 2030 agenda in their host country. This means that international businesses could redirect their investments towards SDGs serving initiatives that can change lives and maximise value creation in their host countries (El Alfy et al., 2020). However, and as mentioned earlier, this CSR perspective as a tool for systematic implementation of SDGs still not adequately understood in the extant literature (El Alfy et al., 2020) and practice (Kulkarni & Aggarwal, 2022).

This chapter, hence, offers an integrated conceptualisation of the SDGs implementation in Africa based on these three concepts. We argue that without this multi-perspective understanding, policy making will fail to unleash the huge potential role of international businesses in society. Especially with emerging normative institutions gaining momentum, non-compliance would impair international businesses' legitimacy in their host countries. Here few attempts such as Huber & Gilbert (2017) discussed PCSR and how through multiple stakeholder initiatives, firms can contribute towards social development in Bangladesh. However, given the complexities posed by the African situation in relation to the progress towards the SDGs as well as the prevalent business case-driven CSR, the conceptualisation of PCSR requires further consideration of the institutional environment and motives behind CSR engagement. We unpack PCSR in terms of institutionalisation and legitimatisation constructs that could mobilise international businesses to assume their political responsibilities in a more systematic way.

In doing so, we heed El Alfy et al. (2020) call for future research to investigate the role of MNC's CSR in SDGs in more detail. As such, this chapter contributes to the CSR for development as well as the international business literature by conceptualising how PCSR can be adopted by international businesses to enhance their social impact via systematically contributing to the realisation of the SDGs and hence improve their moral legitimacy within their host countries.

Against this background, this chapter poses the following research question:

RQ1: *How the constructs of SDGs and Political CSR can be conceptualised in relation to the African context to maximise the impact of international businesses in society?*

This chapter has developed a model for rejuvenating the SDGs in Africa using impactful PCSR. The model offers a realistic, theoretically dense conceptualisation which contributes to the CSR for development literature and can assist policy makers and practitioners in formulating effective strategies that can nurture progress towards the SDGs and other African developmental agendas. This model hence applies to the 17 SDGs. It shows the importance of international businesses' engagement with the host country government and local community to agree a strategy to address specific SDGs by 2030. This approach could potentially shift the focus of international businesses working on ad hoc CSR activities that they consider important, to CSR activities that yield "tangible development benefits in communities" (Jamali et al., 2017, p. 4) and hence contribute to the realisation of the SDGs in African countries. This is particularly important to international businesses as non-compliance with emerging normative institutions could negatively affect

their legitimacy. Finally, this model can also underpin knowledge exchange endeavours between academia and practice.

The rest of this chapter is organised as follows: Sect. 2 provides an overview of the progress and challenges in achieving the 2030 agenda SDGs in Africa and the role of international business. Section 3 discusses the research methodology. Section 4 discusses the theoretical framework based on the concepts of PCSR, neo-institutional theory, and legitimacy. Section 4.1 discussed how the integrated theoretical framework could further our understanding of the symbiotic relationship of sustainable development and CSR, hence offering an opportunity to rejuvenate the SDGs in Africa. Finally, Sect. 5 offers the conclusion and future research agenda.

2 The African Progress Towards The 2030 Agenda

This section provides an overview of Africa's progress on the 2030 agenda, highlighting the impact of COVID-19 and the Ukraine-Russia crisis and sets the scene for the potential role of international businesses towards sustainable development in their host African countries.

The African continent is rich in natural resources such as crude oil, natural gas, minerals, forests, and wildlife, holding a significant share of the world's renewable and non-renewable natural resources; nonetheless, unsustainable use/extraction alongside corruption costs around \$195 billion annually in wasted resources (UNECA, 2015). Hence, it is not surprising that the African continent is facing “*extreme poverty, rampant corruption, human rights abuse, environmental degradation (due to extractive industry activities), extreme inequalities, HIV/Aids, conflicts, and weak rule of law*” (Mangena et al., 2023, p. 2). The 2020 Africa sustainable development report (2022) thoroughly analysed the performance of 52 African countries across all five SDGs pillars: people, prosperity, planet, peace, and partnerships. The results show that four North African countries; Tunisia, Morocco, Algeria, and Egypt as well as the Island states of Mauritius, Cabo Verde, Botswana, and Ghana are ahead of other countries in the continent, having said that these top performers are 35% away from achieving the SDGs by 2030.

Africa has achieved an average staggering score of 53.82% which means that the continent is only halfway towards achieving the SDGs. According to the same report, no African country has been categorised as progress is on track (known as green category), with the greatest challenges related to SDG 3 (good health and well-being), SDG9 (industry, innovation and infrastructure), and SDG 16 (peace, justice and strong institutions), whilst the strong performance was recorded against SDG 13 (climate change) and SDG 12 (responsible consumption and production). In relation to corruption and transparency, the report shows there were some improvements achieved; however, the continent scored 17.1 on transparency related to the laws and records of state-owned companies, which suggests that corruption is severely impacting the effectiveness of both the private and public sectors.

In a further update, the 2022 Africa Sustainable Development Report evaluated Africa's performance in relation to SDG 4: Education and shows that the continent made slow progress in the provision of quality education for all; SDG 5: gender equality and empowerment of all women and girls and highlighted that progress towards inclusivity is slow and the institutional infrastructure to protect women and girls is weak; SDG 14: life below water with a key takeaway that the organic and chemical pollutants remain a risk to Africa's marine ecosystem; SDG 15: life on Land, here the report warned that loss of forests, biodiversity, and land degradation is prevailing and hinders progress on this aspect. Finally, SDG 17: partnerships, here the report emphasised the importance of this objective in underpinning successful progress in other SDGs, through domestic resources mobilisation. Finally, the report assessed the impact of COVID-19 and Ukraine-Russian crisis, which had unfortunately reversed some of the progress made on achieving the SDGs.

Of essence here is to ask who should take the responsibility of implementing the UN agenda 2030 and the SDGs? The Africa regional report on the Sustainable Development goals (2015) attempted to answer this question, when the authors recommended that *“the process of implementing the sustainable development goals should be led at the highest level of political leadership at local, country, subregional and regional levels. Effective political leadership is crucial for ownership, commitment, galvanizing support, mobilizing resources and ensuring accountability . . . Effective participation of all stakeholders public, private sector, civil society, youth organizations, and women's organizations – should be vigorously cultivated, encouraged and sustained”* (UNECA, 2015, P. 68, emphasis by the authors). As such, implementing the SDGs on ground remains a joint responsibility between the government, society, and the private sector. Here, the role of the government is crucial in offering the vision and policies which instigate and foster the participation of various stakeholders in this agenda, as the SDGs resemble a social contract between African governments and the governed (Odusola, 2017).

3 Research Methodology

A research design is related to the *“decisions about how to achieve research goals, linking theories, questions, and goals to appropriate resources and methods”* (Flick, 2018, p. 102). Thus, it is a plan on how to collect evidence that enable researchers to answer the research in hand (Jaakkola, 2020). This chapter utilises a conceptual research design in order to answer the research question. In doing so, the chapter follows Jaakkola (2020) theory synthesis's template which suggests that a conceptual paper starts from a *“focal phenomenon that is observable but not adequately addressed in the existing research . . . and then argue that the aspect of interest is best addressed in terms of particular concepts or theories”* (P. 19). The focal phenomenon in this chapter is twofold: first, the grand developmental challenges in Africa expressed in the slow (in some cases stagnant) growth and realisation of the

SDGs in many African countries. Challenges that cannot be simply left to the African governments to deal with solely.

Second, whilst the CSR concept sets some expectations from international businesses contribution to alleviate these grand challenges, the “*pre-occupation has been mostly with types of CSR programs and processes, rather than the more fundamental question of how CSR programs are yielding (or not) tangible development benefits in communities*” (Jamali et al., 2017, p. 4). In this situation, the business case motivation for engaging with CSR is more prevalent than the moral case, i.e. doing the right thing. Moreover, research on the relationship between CSR and development is inconclusive (Huber & Gilbert, 2017). This led many scholars to highlight the need to further investigate and better understand the role of international businesses’ CSR in development (El Alfy et al., 2020). We heed these calls by mobilising a multi-theoretical framework (Sorour et al., 2021a) based on the integration of PCSR (Scherer & Palazzo, 2011), neo-institutional theory (Scott, 2014), and legitimacy notions (Suchman, 1995) to conceptualise addressing grand SDGs challenges in Africa through international business’ impactful CSR expressions. The aim here is to offer an overall understanding that applies to all SDGs. Jaakkola (2020) opines that the choice of concepts in a conceptual paper is based on “*their fit to the focal phenomenon*” (p. 19). Hence, we argue that our multi-theoretical framework offers a unique understanding and appreciation of the phenomenon of sustainable development, taking into consideration the political role of international businesses, as well as the complex institutional environment within African countries and competing logics for achieving organisational legitimacy. The relevance of each element of our multi-theoretical framework to our focal is discussed in Sect. 4.

Finally, linking the structure and process is a key element of theorising exercises (Strauss & Corbin, 1992). The quality of our model can be judged against “*thick description as a useful tool for “performative rethinking*” (Gibson-Graham, 2014, P. 147) of the CSR concept. Thick description is attentive to the details, context, and social relations pertaining to a phenomenon (Ponterotto, 2006; Denzin, 1989). Good thick description (1) . . . gives the context of an act; (2) it states the intentions and meanings that organise the action; (3) it traces the evolution and development of the act (Denzin, 1989, p. 33). In Sect. 4.1, we elaborate how these criteria are fulfilled by rejuvenating the SDGs in Africa through Impactful PCSR model.

4 Theoretical Framework

This chapter adopts a multi-theoretical framework which integrates Scherer & Palazzo (2011) PCSR, Scott’s (2014) neo-institutional theory, and Suchman’s (1995) notions of pragmatic and moral legitimacy as a lens to synthesise an understanding to inform policy making and practice around the role of international businesses as a salient political player that can further facilitate the realisation of any of the 17 SDGs in Africa as deemed relevant to the circumstances of the country in question.

4.1 PCSR

There is no single accepted definition of PCSR; however, the most notable work in this area is of Scherer & Palazzo (2011) who highlight the challenging nature of engaging businesses in CSR. They suggest that this engagement cannot be satisfactory unless we think of the “corporate” social responsibility differently. Corporations and businesses in general are considered purely economic actors within the society and this what limits their engagement with CSR, as the businesses case and neo-liberal notion of economic rationality underpin businesses motivation to engage with CSR. Hence, to change this, the corporate role should be extended to include political responsibilities that clearly includes contribution to the sustainable development agenda (Wettstein & Baur, 2016; Luyckx & Janssens, 2016; Acosta & Pérezts, 2019). Essentially, this requires adopting a more inclusive governance model that allows business firms to systematically provide community services (Boddewyn & Doh, 2011; Acosta & Pérezts, 2019), adopt self-regulatory behaviour (Slager et al., 2012; Maier, 2021), and contribute towards regulatory changes through political channels (Den Hond et al., 2014; Acosta & Pérezts, 2019).

This extended role of corporations, particularly international businesses will directly facilitate the implementation of SDGs (Selsky & Parker, 2010) in Africa, for instance engaging MNCs in community services to reduce poverty and hunger, achieving food security and promoting citizens’ well-being or in other words filling the institutional voids (Amaeshi et al., 2016; Sorour et al., 2021a). Here, in this case, international businesses are in essence providing resources and financial support for development (Jo et al., 2018; Onsongo, 2019; Lind et al., 2022). Of note, that according to PCSR, providing community services is driven by adopting a self-regulatory approach (Bartley, 2007; Slager et al., 2012; Scherer et al., 2016). This approach can then offer the flexibility of integrating their global culture and values with the local one (Filatotchev & Stahl, 2015). So, international businesses could mentor their employees in every country where they operate (Camilleri, 2016; Mirvis & Googins, 2018) and hence not only live up to the normative ideals of PCSR within a particular society, but also contributes to building such ideals (Slager et al., 2012), following a transnational approach to PCSR (Filatotchev & Stahl, 2015). This would also accelerate the development and help addressing institutional voids signifying absent or weak institutional arrangements (Chakrabarty & Bass, 2013) (further discussed at the end of this section). Through the same logic, international businesses can also affect the regulatory process in host country as “*companies can sometimes act as governments, or as citizens in the administration of aspects of citizenship rights for individuals in the community*” (Lind et al., 2022, p. 212). Of note, that moving from usual instrumental self-serving CSR to political CSR is not a straightforward (Sorour et al., 2021a) and requires the collaboration of governments, international businesses, local communities, NGOs and consumers, and all parties to overcoming barriers that hinder development.

4.2 *Neo-institutional Theory and Notions of Legitimacy*

Second, neo-institutional theory emphasises the importance of the wider environment on organisational behaviour (Scott, 2001) and is not necessarily in the form of technological or material influence but can be based on cultural and symbolic aspects (DiMaggio & Powell, 1983). Of note, that neo-institutional theory discounts the idea that organisation adopts a certain practice because it is the most efficient or rationale but because it is “*culturally specific practices akin to myth and ceremonies devised by many societies and assimilated into organizations*” (Hall & Taylor, 1996, p. 946). Extant literature on CSR in developing countries has paid attention to the role of institutions in predicting organisational engagement/disengagement with CSR (Sorour et al., 2021b; Jamali & Neville, 2011; Li & Belal, 2018).

Two institutional pillars that could instigate organisational responses are of interest here, the regulative and the normative pillar (Scott, 2014). The latter is based on societal obligations, moral expectations and a logic of appropriateness (Scott, 2014). The notion of legitimacy is central to the neo-institutional theory and how the institutional pillars function, as organisations do not only compete for resources and customers but also for “political power and institutional legitimacy” (DiMaggio & Powell, 1983, p. 150). Legitimacy refers to “a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574). As such, legitimacy is a key construct that affects how companies respond to institutional pressures. The neo-institutional theory has been utilised to understand and theorise CSR within developing countries (Scott, 2008; Matten & Moon, 2008; Jamali & Neville, 2011; Muthuri & Gilbert, 2011). Legitimacy is key to establish a dialogue between organisations and their salient stakeholders (Soobaroyen & Ntim, 2013).

Two types of legitimacy are of interest here and are aligned with the regulative and normative institutional pillars (Scott, 2014). Pragmatic legitimacy is the basis for propagation of the regulative pillar on the basis of “self-interested calculation” (Suchman, 1995, p. 598). Conversely, moral legitimacy is based on normative basis and granted on the basis that the organisational behaviour is deemed right and appropriate, by its salient stakeholders (Suchman, 1995). In the context of CSR, companies might engage with CSR expressions to achieve pragmatic legitimacy based on a business case justification and calculated gains whether to further its reputation or in the form of rent seeking (Brammer et al., 2012; Adelopo et al., 2015).

Alternatively, companies can engage with CSR expressions on moral and normative grounds to enhance the social welfare of the society in which it operates (Scherer, 2018).

4.3 *Institutional Voids and Development*

Finally, it is worth noting that in Africa, the working of PCSR within a nearly effective institutional environment can be faced with a problem known as institutional voids. Institutional voids are a main hindrance of African development and cause of suffering faced by both individuals and businesses operating therein (Chakrabarty & Bass, 2013; Mair & Marti, 2009). As Chakrabarty & Bass (2013) explain “Institutional voids exists where institutional arrangements[s] that support markets are either absent or weak” (p. 546). Examples of institutional voids include unreliable sources of information, inefficient judiciaries, high levels of corruption, the influence of the state, and weak law enforcement (Chakrabarty, 2009; Khanna & Palepu, 2010). While institutional voids can be a counterproductive force that could make it easier for businesses to evade CSR activities (Jamali & Karam, 2016), it can also offer some opportunities to fill such voids (Lam et al., 2017). Moreover, solutions provided by powerful actors to minimise these voids are “*idiosyncratic to the institutional fabric of the countries they are working in. Each is derived from a complex cultural, political and economic legacy*” (Mair et al., 2007, p. 39). In the same vein, organisations follow CSR adaptive mechanisms and strategies which are voluntary and normatively driven to build an institutional immunity that mitigates the negative consequences of institutional voids (Amaeshi et al., 2016).

5 **Rejuvenating the SDGs in Africa Through Impactful PCSR**

This section contemplates how our theoretical framework (Sect. 4) would offer a nuanced synthesis of the CSR concept that transcends the business case as a prime justification for CSR engagement (Brammer et al., 2012; Adelopo et al., 2015). Instead, CSR expressions are sought on moral and normative grounds to enhance the social welfare of the society in which it operates (Scherer, 2018). While African nations are currently at different stages of their SDG journeys, as discussed in Sect. 2, COVID-19 and the Ukraine-Russian crisis have further slowed down the progress on achieving the SDGs in African nations. As a result, we have proposed this model to rejuvenate the SDGs in Africa.

Our rejuvenating the SDGs in Africa through Impactful PCSR model shown in Fig. 1 delivers a careful depiction that captures the dynamics between key entities in the PCSR for development scene, namely: UN agenda 2030 expressed in the SDGs, the African national governments as the policy makers in their respective states and who collectively and individually shown commitment to the SDGs in 2017 and finally the international businesses representing the private sector in this chapter. The model also situates PCSR within a sole African country context, this is crucial as this model makes no attempt to suggest a one-size-fits-all perspective but offers a transferable model which can vary between one country and another as we will

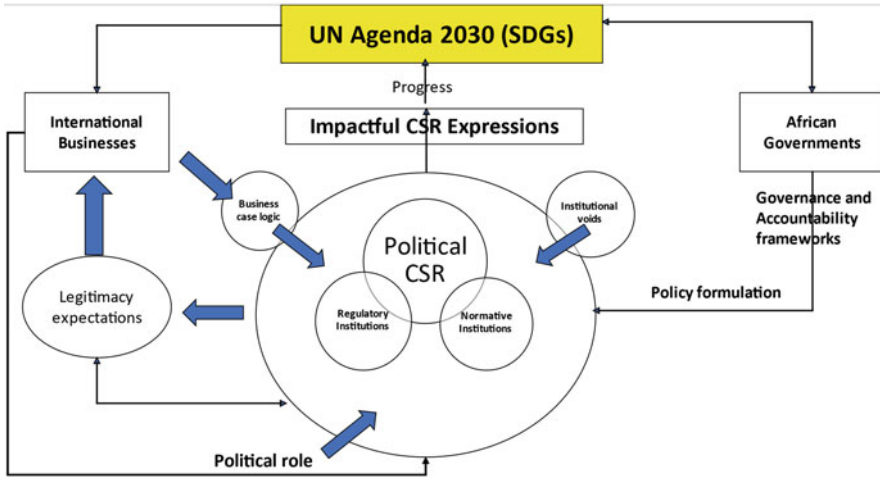


Fig. 1 Rejuvenating the SDGs in Africa through impactful PCSR

elaborate in the rest of this section. In the following, we elaborate how the three criteria for good thick description (mentioned in Sect. 3) have been fulfilled by rejuvenating the SDGs in Africa through Impactful PCSR model.

5.1 The Context of PCSR for Development in Africa

Political CSR is the main phenomenon within our model shown in Fig. 1. This phenomenon is contextualised by two key intervening factors which act as barriers for international businesses to play their political role (Scherer, 2018). The first barrier is “the business case” thinking which is evident in African business environment (Adelopo et al., 2015; Sorour et al. 2021a). Here, companies might engage with CSR expressions to achieve pragmatic legitimacy through calculated gains whether to further its reputation as a public relation exercise (Michelon et al., 2015; Soobaroyen & Mahadeo, 2016, Sorour et al., 2021b) or in the form of rent seeking from immediate salient stakeholders (Brammer et al. 2012; Adelopo et al., 2015). Having said that, the reality might be slightly more complicated as engagement with PCSR for development can be seen as a continuum, with some companies engage with CSR expressions for their immediate benefit, few others consider themselves as a “true development agents” and many other lies in-between over this continuum (Jamali et al., 2017, p. 3). The reason for this behaviour can be understood in relation to institutional pressures that these companies are facing and how this affects their legitimacy (Crowther & Rayman-Bacchus, 2004) which takes us to the second barrier, the institutional voids.

As mentioned earlier, institutional voids are a main hindrance of African development and cause of suffering faced by both individuals and businesses operating

therein (Chakrabarty & Bass, 2013; Mair & Marti, 2009). Essentially, institutional voids create a “responsibility-free space” for businesses, thus further complicating their motivation to adopt CSR activities (Jamali & Karam, 2016). Institutions are what “provide stability and meaning to social life” (Scott, 2001, pp. 48–49). As such, when these institutions and in particular the regulative and normative institutional pillars do not exist, every company is left to make their own choices. In such case, the likelihood that companies favour self-interest and utilise CSR to further their competitive position is high (Sorour et al., 2021a). The counterargument here is that in developing countries, societal norms and cultural influences may motivate businesses to actively engage in addressing these voids, thereby furthering their value creation objectives and legitimacy (Lam et al., 2017; Mair et al., 2007; Mair and Marti, 2009). However, because of the risk that businesses address such voids on an ad hoc basis, institutions remain a key element for sustaining businesses’ contribution to the development agenda. A recent review of CSR literature in Africa, supports this limitation, as it shows that MNCs take advantage of weak institutions to focus on philanthropic CSR activities instead of contributing to sustainable development; simply due to weak bargaining powers of stakeholders and absence of threats to their legitimacy (Ahen & Amankwah-Amoah, 2018).

In terms of the context of political CSR, there are two further factors which act as drivers, i.e., work in the opposite direction of the two barriers identified (business case logic and institutional voids). These are the emerging institutional pillars introduced to support the SDGs in Africa and namely the regulatory and normative pillars (Scott, 2014). The importance of institutions has been well recognised by the latest Africa SDG report (2022) which stressed that “there is an acute need to strengthen institutional capacities” (p. viii). Developing institutions has also been identified as a top priority to enable the realisation of the SDGs in Africa (ASDGR, 2022). In terms of regulative pillar, it is based on expedience and instrumentality logics, facilitated by coercion through rules, laws, and sanctions (Scott 2001, 2014). This is not really what PCSR seeks to promote and, Scherer & Palazzo (2011) highlighted that when CSR becomes “rules-driven” through government regulation and hard rules, this can only instigate more instrumental CSR. This is also influenced by the prevailing corporate governance model and whether it is shareholders or stakeholders orientated (Sorour & Howell, 2012; Amodu, 2020; Scherer & Palazzo, 2011). Even changes in favour of stakeholder protection in national legislation eventually can end as ineffective, one example here is Nigeria’s updated corporate legislative framework, the Companies and Allied Matters Act, 2020 (CAMA, 2020) is deemed to have minimal substantive stakeholder protection (Amodu, 2020). So, it is worth noting here that whilst the regulatory pillar is an important institution that could fuel PCSR, a major caveat is its promotion of an instrumental CSR logic that focus on ticking the box, instead of supporting the development cause. As such, the second driver, the normative institution, plays a pivotal role to instigate genuine commitment by international businesses to play their political role effectively. A relevant example is Egypt, where whilst the Egyptian banks have faced a combination of regulatory and normative institutional pressures to report on their CSR activities, improved CSR engagement and

disclosures were driven by moral obligation and businesses sensing that they should align more with social expectations (Sorour et al., 2021a).

5.2 *Dynamic Nature of PCSR for Development: The Role of Institutions and Moral Legitimacy*

In relation to Denzin's (1989) second criteria, and as mentioned earlier, institutions are what "provide stability and meaning to social life" (Scott, 2001, pp. 48–49), in addition to the regulative and normative institutions, public governance is a critical institution at the macro level which affects the quality of corporate governance system within any country (Sorour, 2011) and consequently its CSR. As ineffective regulatory framework can not enforce corporate governance rules and establish accountability (Kimani et al., 2021). It goes without saying that promotion of good governance and transparency are the foundations for establishing accountable political leadership (UNECA, 2015). This was also recognised in the Busan Partnership agreement (ibid.). Yet, in the latest Africa SDG report (2022), "*creating the enabling governance, legal, and judicial frameworks for enhanced accountability, transparency and participation*" was still a key area for improvement (p. XXII). Notably, governance not only has to be transparent for PCSR to operate and flourish, but it also has to be inclusive (Scherer & Palazzo, 2011). This means that governance moves from a highly single player, i.e. the state (ibid.) to a more of role sharing setting between the state, civil society, and businesses (Raimi et al., 2015).

Here, the role of normative institutional pressures should not be overlooked, as it enables a participatory governance model that facilitates the co-creation of a common understanding of the role that each party plays to foster long-term growth and development focused partnerships (Scherer & Palazzo, 2011). This also establishes clear moral legitimacy expectations for international businesses to meet. An example for these partnerships is the creation of national-level government bodies to oversee and orchestrate these partnerships. Of note, that countries such as Egypt have implemented this idea by creating the National Institute for Governance and Sustainable Development (NIGSD). This "*is a public economic organization, with advisory, training and research identity... its vision ... to serve Egypt's Vision 2030 and to promote the concepts of governance and good governance ... to facilitate procedures and develop rules for dealing with State institutions and bodies and to coordinate the relevant bodies at both the central and local levels, in accordance with the standards of good governance. The Institute will monitor and follow up Egypt national and international classification in Governance, Competitiveness and Sustainable Development. The Institute will be responsible for setting national strategy and action plan in coordination with different GOE agencies*" (NIGSD, 2023) [online]. Within NIGSD, there is a specialist sustainable development unit which aims to "*Monitor progress in the implementation of the Sustainable Development Goals; Raising awareness of the concept and importance of*

sustainable development and clarifying its relationship to governance; Fostering partnerships between all sectors (government, private, civil society) to achieve the Sustainable Development Goals” (ibid.). Moreover, this institute has offered women leadership programmes in 2022 for 58 African women from 20 African countries in 2022; delivered the Governance and Sustainable development course to its third cohort, initiated Egypt Impact Lab (JPAL) to measure impact and combat poverty and organised more than 14 workshops to raise awareness about governance with participation of 1100 participants from governmental, civil society organisations, private sector. Similarly, trained more than 815 trainees on sustainable development and Egypt’s Vision 2030 (ibid.). This is a remarkable example for the government’s systematic interaction with various stakeholders and building a growing normative expectation that everyone should participate in achieving the SDGs. Finally, it is worthwhile to mention that international businesses are not a passive receiver here in this model, they are actually a key player in the global governance setting (Scherer & Palazzo, 2011) and sometimes act as governments (Lind et al., 2022). Given the nature of international businesses and the fact they operate within their global CSR policies, a transnational CSR approach would strike a balance between compliance with global policies and responsiveness to local developmental needs (Filatotchev & Stahl, 2015).

Rejuvenating the SDGs in Africa model is not meant to be a static depiction or a snapshot, but as it links processes (contextual factors, institutional voids, businesses case logic) with actions/interactions of the state, international business, and UN agenda 2030 it is continuously evolving. This dynamic nature is captured in the model through the actions shown on the arrows as well as in the circular motion of feedback between different entities. This keeps this model in a state of flux. This state of flux gains momentum from actions and interactions of the key players, namely: international businesses, governments, and the United Nations. Meanwhile, institutional voids and the business case CSR logic create a space where international businesses can act irresponsibly. This is counter-acted by institutional pressures from policy makers in the form of the introduction of new governance and accountability frameworks, as well as emerging norms introduced by SDGs awareness raising and education. This in turn upgrades the legitimacy expectations to include moral legitimacy and not pragmatic legitimacy only, as such driving international business to engage more meaningfully with a PCSR practice, which if aligned with the SDG vision 2030 of the host country, could lead to impactful CSR expressions. As such, key to the success of this model is the interaction between various entities as they co-create the CSR reality and agree legitimate business practices that could meaningfully contribute to the creation of developmental space in which a transitional CSR approach contributes to the sustainable development agenda. This state of flux could be maintained till the fully institutionalisation of the PCSR practice in a given context.

6 Conclusion and Agenda for Future Research

The chapter has attempted to answer the question of: How the constructs of SDGs and PCSR for development can be conceptualised in relation to the African context to maximise the impact of international businesses in society? In doing so, the chapter has formulated rejuvenating the SDGs in Africa through impactful PCSR model. This model is underpinned by the PCSR, neo-institutional theory, and notions of pragmatic and moral legitimacy. The model offers a careful integration of these theoretical constructs that can guide impactful CSR realisation in the African continent. The model was developed using thick description as an effective tool of performative rethinking of the concepts in question. The model links the contextual realities prevailing in Africa, including the business case logic and institutional voids, which creates a responsibility free space, where the logic of self-serving instrumentality rules, making CSR expressions akin to a public relation exercise unlinked to the developmental needs. However, these intervening factors are counterbalanced by an emerging normative narrative, propagated by the normative pressures created by actions/interactions of the African governments' commitment to the UN 2030 agenda and international businesses' transnational PCSR approach. This model is further facilitated by changing governance mode which has moved from a local governance system, where the government is the sole player to a global governance model which is participatory in nature. This setting creates an increasing awareness raising opportunities where international businesses along with national development focused organisations can foster a wider culture of sustainable development. The model is evolving in nature and there is a feedback loop between these constituents. The model offers a realistic, theoretically dense conceptualisation which contributes to the CSR for development literature and can assist policy makers and practitioners in formulating effective strategies that can nurture progress with SDGs and other African developmental agendas. Finally, this model can also underpin knowledge exchange endeavours between academia and practice.

Future research work could include testing this model against empirical data in Africa whether qualitatively or quantitatively. Whilst the model by no means supports a one-size-fits-all approach, it aims for transferability and further refinement when tested empirically in different contexts.

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Value Creation Impact: Role of Stakeholders in the Development of Sustainable Foreign Trade



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Abstract Sustainable trends are on the rise within international trade as companies create value for stakeholders based on the needs of each stakeholder but aligned to sustainable flows. Therefore, the article aims to identify the impact of the role of stakeholders in the development of sustainable foreign trade incorporating the SDGs. The article shows that the development of various sustainable strategies significantly impacts corporate reputation and provides better management in various areas of a company. At the same time, sustainability in an organization increases competitive advantage by improving global value chains and the perception of consumers and other stakeholders. Internationalization in companies is very common in today's highly competitive and saturated markets, in addition to the fact that they must adapt to the goals of the global sustainable agenda. Therefore, companies are developing different sustainable activities that involve stakeholders, government, and organizations.

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1 Introduction

International trade is a sure path for economic growth and development (Castellano, 2006). For this, companies are performing strategies that involve stakeholders, such as providing decent jobs to local people (Frey, 2017), labor benefits (Rai et al., 2019), and products or services with quality standards (Díaz-Correa and López-Navarro 2018, Engida et al., 2018). Strategies are applied to diverse stakeholders because stakeholders involve consumers, workers, suppliers, and communities (Clement, 2005; Silva et al., 2019).

Authors Harrison et al. (2015) found that stakeholder theory helps address relevant aspects of international business. Companies are incorporating objectives in the field of social responsibility and care for natural resources demonstrating a high level of commitment to sustainability and to different stakeholders to obtain economic profitability (Pérez-Espinoza et al., 2016; Polanco et al., 2016; Stubbs, 2017). In other words, the dimensions of the development objective are included in the trade of goods and services by strengthening the multilateral trading system (Jindřichovská et al., 2020). In this sense, a strong relationship between companies and their stakeholders is vital for the success of a company since it allows for responding appropriately to the competitiveness of the international market, in addition to building a sustainable corporate identity (Darskuviene & Bendoraitiene, 2013; Dentoni et al., 2016; Tregidga et al., 2018).

International trade needs to be consistent with the SDGs through the investments made in each country and the solutions implemented in companies of all sizes. Proper management of these investments and solutions enables poverty reduction, clean environments for society, and opportunities for economic growth (Hidalgo, 2018). Companies' value creation is aligned with stakeholders' needs, which leads to commercial sustainability that excludes less sustainable social and labor activities (Husted et al., 2015; Del Campo et al., 2020).

2 Origin and Definition

Business models have undergone many changes in recent years due to new market demands. Parliamentarians around the world have been promoting a sustainable agenda with different objectives, such as the adherence to Corporate Social Responsibility (CSR) policies, a reinvention of a linear to circular economy, a greater acceptance by stakeholders, among others (Halkos & Nomikos, 2021; Lewandowski, 2016; Witjes & Lozano, 2016). In this way, societies can adapt many of these initiatives and thus become more sustainable (Montalvo, 2008). Implementing such sustainable practices to the economic activities of a company or organization generates a joint synergy in companies. Several studies call it "shared value" (Porter & Kramer, 2011), combined value (Emerson, 2003), or new value creation (Lepak et al., 2007), a term that refers to the additional contribution or

extra economic value after assisting some socioeconomic need or challenge (Porter & Kramer, 2011; Austin & Seitanidi, 2012). The potential for value creation also lies in collaboration between organizations, as this benefits from the partners' combined skills, resources, and knowledge (Gray & Stites, 2013; Le Pennec & Raufflet, 2018). Another perception of value creation can be seen in the differential positioning of the brand and the loyalty it can generate in customers (Smith & Colgate, 2007; Woodall, 2003).

The figure that also generates value for a company is the stakeholder, a term that is highly questioned because it comprises many definitions. Both Gallie (1955) and Miles (2012) argue that there is no consensus on its definition for theoretical and empirical analysis. Stakeholders can be shareholders, beneficiaries, suppliers, recipients, participants, and many other roles as these agents are involved or benefit from a company's work. In addition, it can offer benefits, capital, positioning, cooperation, or any other added value for the company itself (Miles, 2017). Inclusively, stakeholders can also be governments, competitors, and advocates (Fassin, 2009).

This concept comes from the business science literature by philosopher Robert Edward Freeman (1984), where he explains the stakeholder theory as any person, group, or individual that may be affected or benefit from the execution of a project. Likewise, Freeman argues that such stakeholders should prioritize the maximization of capital and be concerned about the interests of the other stakeholders in corporate decision-making (Mainardes et al. 2011; McGrath & Whitty 2017). Another turning point in today's business models is their impetus to internationalization. Many markets today are saturated by over-demand or price fights, so many brands decide to migrate to other more competitive or higher value-added markets. Therefore, foreign trade is a way to diversify risk and improve economic activity (Perée & Steinherr, 1989).

According to Heckscher–Ohlin and their trade theory, developing countries must specialize in productive factors such as labor or natural resources, while developed countries focus on human and manufactured capital in a free trade market (Halicioglu, 2009). In this way, each region is a specialist in what it abounds with and allows a better commercial fluidity. On the other hand, foreign trade also has certain disadvantages. Global market uncertainty and exchange rate variability often discourage terms of trade and consequently reduce trade volume (Perée & Steinherr, 1989).

This sustainable movement also involves foreign trade, which must adapt to new technologies, sustainable innovations, social value creation, and integration of social, commercial, and environmental work (Boons & Lüdeke-Freund, 2013; Schaltegger et al., 2012). For this, it is essential that the business operates according to sustainable principles and standards and thus achieves a better sustainable performance in the company (Schaltegger & Wagner, 2011). The classic linear economic model represents a threat to sustainable goals; consequently, it is being displaced by the Circular Economy (CE) model, which seeks to be a regenerative economy from its inception (Ellen MacArthur Foundation, 2013). Its objectives are to mitigate environmental damage and economic savings and generate greater

awareness and environmental and sustainable values (Lewandowski, 2016). As a result, many practices within foreign trade are being reoriented toward sustainability.

3 Importance of Sustainability in International Trade

International trade has demonstrated its important role in promoting sustainable development in today's globalized world, contributing at different levels to the fulfillment of the SDGs within the framework of the 2030 Agenda, which has been demonstrated in the growth and development achieved by the economies of the world offering new opportunities for business growth, as well as the decrease in poverty levels and therefore, the increase in the welfare of the population (Organización Mundial del Comercio, 2018).

Trade influences higher income generation in a country and more excellent employment opportunities. International trade exchange allows access to new technologies and foreign investments, the generation of global value chains, integration of developed and developing economies, creation of a broader portfolio of products in the market, and offering consumers different price and quality options to satisfy their needs. International trade has become a proactive instrument allowing the attraction of investments for development in infrastructure, education, public health, productive capacity, increased exports, and promotion of sustainable investments (Organización Mundial del Comercio, 2018).

Additionally, trade openness allows countries to make efficient use of resources, given the specialized development of goods and services in which there are more significant comparative advantages and allow the generation of economies of scale and, therefore, the development of more competitive products. In turn, specialization in production and exports in natural resource sectors can generate a certain degree of vulnerability to price fluctuations in the international market and also negative impacts on the environment, as evidenced in the results of greenhouse gas (GHG) emissions, among other adverse effects, so that the strategies applied to mitigate the negative effects vary in each country (Frohmann et al., 2020).

Although international trade offers various important benefits for the economy's growth in a country, it also generates specific cross-cutting effects in other areas, given the concatenation of the different sectors (Organización Mundial del Comercio, 2018). For this reason, specific instruments, such as trade policies and development plans, must maintain a coherent integration among themselves and all stakeholders for the proper sustainable development of an economy. Multiple actors are involved in developing instruments that promote sustainable development in the commercial world, including the government, private companies, academia, and society (Frohmann et al., 2020).

The impact generated by international trade is subject to trade, macroeconomic (fiscal and monetary) and macroeconomic (industrial, innovation, and education) policies, which make it possible to regulate various aspects that influence to mitigate the negative impacts and enhance the positive effects of trade on sustainable

development. Likewise, the countries generate an additional link through multiple bilateral and multilateral agreements, which address trade facilitation issues between the parties and regulatory aspects related to labor, environmental, public health, and cooperation, among others. All this affects each country differently since each party has its legislation and international agreements (Frohmann et al., 2020).

Some argue that trade and sustainability contradict each other, given that the excessive use of resources and increasing scarcity are at the root of questions about the impact it generates. However, other authors argue for the ability to create trade based on economic, social, and environmental dimensions, i.e. a company can create synergies between environmental and social problem-solving according to the core business. Nowadays, the ecological field has taken great relevance, and therefore more and more companies are implementing strategies based on sustainable development that benefit not only the company but also all stakeholders (Schaltegger et al., 2019). In this sense, trade generates ample opportunities for economic and social growth and supports the creation of national, regional, sectoral, and international sustainable development policies (Organización Mundial del Comercio, 2018).

As a critical element for socioeconomic development, trade requires action and high efforts from all stakeholders, including the public and private sectors. Likewise, the basis of the scope and achievements reached must be evidenced; the ability to measure results and statistics is critical to achieving a correct improvement process in all dimensions. It is worth highlighting that given the constant world evolution and globalization, the generation of partnerships between countries has become an important means for the combination of efforts for the achievement of the objectives of each country (Organización Mundial del Comercio, 2018).

According to Organización Mundial del Comercio (2018), to achieve expediting the positive impact of international trade on the fulfillment of the SDGs is the act of mainstreaming trade within national general and sectoral strategies, strengthening the multilateral system, reducing costs through the WTO trade facilitation agreement, the creation of trade infrastructure in developing countries, greater focus on export product diversification through value-added creation, enhancing and boosting the services sector to a greater extent, making e-commerce a tool for inclusion, and generating more significant efforts for the internationalization of MSMEs. Businesses have great power in the world's economies and society, so their proactive participation in sustainable development is critical to achieving positive results and sustainable economic, social, and environmental benefits.

A sustainable company is a small, medium, or large business that contributes to development by providing sustainable benefits comprehensively and simultaneously in all three dimensions, which also includes good corporate governance and value creation for all stakeholders, adopting strategies and a holistic, long-term vision and integrating sustainable systems based on ethical principles into its processes and operations (Hart & Milstein, 2003; American Management Association, 2007; Tafrá-Vlahović, 2016).

At the beginning of the history of the business world, the traditional thinking and priority focus were on the benefits provided to shareholders (Friedman, 1970).

However, the approach of business people evolved, and they broadened their vision by recognizing the value of each of the company's stakeholders (Freeman, 1984, 1999).

The success of a company in a competitive international market depends not only on the value returned to shareholders but also on the correct outcome of the value chain, from suppliers delivering the proper orders at the right time at the right price, employees willing to work and motivated, the company making efficient use of resources, customers willing to buy its products, the company generating revenue, shareholders willing to contribute capital to the company and generating a positive impact on society (Karlsson et al., 2018).

In this context, the fundamental objective of a sustainable business is to create value for all stakeholders (Freeman, 1984), which is why it is essential to know how stakeholders think to generate adequate and comprehensive strategies that allow satisfying the expectations of each stakeholder (Schaltegger et al., 2019). Furthermore, integrating the environmental and social aspects in decision-making for economic and social development in the public and private sectors is essential to achieve sustainable development (WCED, 1987).

According to Preghenella and Battistella (2021), the three essential characteristics of a sustainable business model are based on (1) a long-term business vision; (2) the integration of sustainable value generated and captured at the economic, social, and environmental levels; and (3) the interaction and integration of all stakeholders (Hörisch et al., 2014). In a business, the value stream initiates with value intention (Barth et al., 2017), value proposition, value creation, value delivery, and value capture (Bocken et al., 2014; Short et al., 2014).

4 Strategies for Value Creation

It is important to consider the corporate reputation strategy as a value creation form within marketing strategies. One of the terms associated with value is reputation (Dolphin, 2004). The evidence that many organizations are concerned about their reputation is increasing (Goldsmith et al., 2000), especially its effect on market behavior (Cornelissen and Thorpe, 2002).

This is based on understanding the signals that customers consider important as values of a company. In this sense, managers should initiate activities aimed at improving the perception of the organization by customers and interested groups (Caruana, 1997). For example, in the Coca-Cola company, it demonstrated strategic leadership by expanding internationally, since this was thanks to the improvement of the organization's global reputation (Petrick, 1999).

On the other hand, there are strategic alliances for creating value. The companies associated with this management redesign and update their systems to align them with the improved business strategy for value creation (Petrick, 1999). The development and alignment of these electronic systems with strategic alliances can help to understand what the information requirements are and how dependent the partners

are on each other; however, it should be emphasized that initiatives to develop organizational knowledge are of little value if they are not explicitly linked to the overall business strategy aimed at value creation. In the same way, the strategic process must demonstrate the continuous learning capacities of the organization strengthened by strategic alliances directed to more sustainable management (Hackney et al., 2004).

A company that carries out a strategic plan without understanding the impact on the ecosystem ignores the reality of the environment in which it operates (Iansiti & Levien, 2004). It must be understood that non-commercial social activities are different from commercial ones. The potential for value creation through non-commercial social actions increases when competing with companies that do not consider corporate social responsibility a competitive advantage (Husted, 2015). It is worth mentioning that this social aspect also demands the company's behavior since it must provide attributes of the product or service that create value and a social good (Husted, 2015). In other words, focusing on such social responsibility opens a competitive space in which there are new opportunities but additional demands to satisfy.

5 Impact of Value Creation Strategy on International Trade

The impact of the generation of value is directed to the competitive advantages that they bring to a company, especially if it is involved in global trade (Grahovac & Miller, 2009), which occurs if the company's resources generate a margin between the variable cost and the customer's willingness to pay greater than its competitors' margins (Adner & Zemsky, 2006). The effect on a company's performance has also been verified, considering that they pay in the factor markets, as well as what they later appropriate in the product market. This performance evolves when a company acquires a resource at a justified cost; in this sense, the company appropriates based on that resource (Grahovac & Miller, 2009).

The findings provided a new perspective on creating value in business-to-business relationships, especially from suppliers to customers (Ryssel et al., 2004). Value creation greatly influences relationship management, sustainable management, and intra- and inter-organizational information technology (Baldwin & Evenett, 2014). These have different effects on the atmosphere of the relationship and its value creation.

This value creation has also affected the field of accounting in trade companies since these when addressing social, environmental, and sustainability reports encounter challenging problems that are predicated as an extension of the financial information model and as a potential source of "value creation" (Tinker et al., 1991; Neu et al., 1998; Owen et al., 2000; Gray, 2006). Likewise, this area questions how said reports contribute to "creating shareholder value" and whether this action is

feasible and desirable. It is worth mentioning that these reports usually have quite the opposite relationship with the standard assumptions of companies as “value-creating entities” (Gray, 2006).

The impact, in general, resides in the fact that the multiple interested parties, who are the focus of value creation, provide resources, have influence in the business industry, benefit from it and, therefore, are the cause of changes in efficiency and impact, to company profits (Donaldson & Preston, 1995). In this sense, it is concluded that the collective efforts of these parties are at the center of value creation (Haslam et al., 2015). Therefore, the culmination of this support by the interested parties could put the company’s life at risk (Freeman, 2010). It should be noted that corporations are built based on clear objectives that form the ground for stakeholders to cooperate and establish relationships with them (Freudenreich et al., 2020). Therefore, managing a business model that does not have strong relationships with both internal and external stakeholders is not possible.

6 The SDGs in International Trade

The world is going through significant challenges that cross national borders and cause negative effects of great magnitude on society and the environment, which demonstrates the need to combine the collaborative efforts of stakeholders to find solutions to various issues (Wettstein et al., 2019). In this context, in 2015, through the Paris Agreement on Climate Change, 197 countries committed to making a transformative change in the search for a world with smaller social and economic differences and mitigating climate change’s effects (UN, 2015).

As of 2017, these member-states approve a framework of goals and targets as global indicators to develop a more sustainable world and promote public policies and planning instruments (UN, 2018). The Sustainable Development Goals (SDGs) are the initiatives proposed by the UN to measure each individual or entity’s actions to contribute to sustainable development (Laing & Moonsammy, 2021). With 17 goals and 169 targets, the SDGs address issues such as poverty, hunger, health care, responsible consumption, and economic growth (Fuso-Nerini et al., 2019). The SDGs are shown below in Fig. 1.

Fuso Nerini et al. (2018) highlight that a team is required, which comprises all the actors that play an important role in achieving sustainable development. For this, the public and private sectors must get involved and work to achieve the goals proposed by the UN (Van Zanten & Van Tulder, 2018). Likewise, it is necessary to have a more level playing field since developing countries must improve their capacities related to energy production, distribution, and consumption, among others (Fuso Nerini et al., 2018).

According to a survey of CEOs in 2016, it was noted that 87% of all CEOs consider the SDGs as an opportunity to reorient approaches to sustainable value creation, while 70% consider the SDGs as a clear framework for structuring sustainability efforts, i.e. they provide a better overview of the goals to be met and how



Fig. 1 The sustainable development goals. Note. Adapted from 17 goals to transform our world, by the United Nations, 2022 (<https://www.un.org/sustainabledevelopment/>)

to distribute the efforts needed to achieve them (Accenture and United Nations Global Compact, 2016). For its part, the World Business Council for Sustainable Development (WBCSD) encourages companies to materialize such actions in conjunction with government policies and the strategies of non-governmental organizations (NGOs) (WBCSD, 2015; Hajer et al., 2015; UN Global Compact, 2017).

It is considered essential to highlight business involvement in the path toward achieving the SDGs, which is reflected in various research that focuses on delving into actual actions that contribute to sustainable development by companies (e.g., Kolk, 2016; Kolk et al., 2017; van Tulder et al., 2014) as well as the case of Van Zanten & Van Tulder (2018) that highlights the contribution of multinational enterprises (MNEs) as indispensable for the achievement of these goals.

7 Implications of the SDGs for Sustainable International Trade in Its Three Dimensions

7.1 Economic Dimension

Pilgrim and Bohnet-Joschko (2022) classified the SDGs in the economic dimension group. This classification is shown in Fig. 2. These SDGs 8, 9, 10, 12, and 17 are present in all three dimensions simultaneously, which is explained in more detail below.

About SDG 8: Decent work and economic growth, the world still faces many challenges that significantly affect job recovery and economic development.

ECONOMIC DIMENSION



Fig. 2 SDG that encompasses the economic dimension of sustainability. Note. Adapted from Corporate Social Responsibility on Twitter: A Review of Topics and Digital Communication Strategies' Success Factors, by Pilgrim & Bohnet-Joschko, 2022 (<https://doi.org/10.3390/su142416769>)

Although in 2021, the global economy showed some growth after the effects of COVID-19, this increase remains weak in contrast to previous years. Furthermore, such labor volatility was more noticeable in developing and developed countries, so their recovery may take longer than in other regions with lesser impacts on their economies (UN, 2023). Labor and growth are directly proportional indicators: the valorization of both is necessary to ensure sustainable development. However, the current economic model ensures that aspects such as price prevail and do not destabilize the market while labor conditions remain precarious and minimum wages remain constant. These inequalities do not encourage fair trade or create significant progress in achieving the SDGs (Franco et al., 2020).

Globalization has undoubtedly allowed the acceleration of all economies; its prosperity is effective and necessary. However, it must be inclusive for all stakeholders, from governments to communities. Such a global strategy must focus primarily on those who do not have the necessary instruments to enjoy its benefits. This call for socioeconomic and sustainable responsibility makes it possible to assertively achieve the goals proposed by the United Nations (Franco et al., 2020).

Responsible consumption is how society makes use of resources without going overboard. Unfortunately, this practice is rare due to low environmental awareness and a lack of recognition of the scarcity of non-renewable materials. Even before the pandemic, there were extremely high levels of material footprint, e-waste, and GHG emissions (UN, 2020). SDG 12 mentions production as an element linked to responsible consumption, so both must address the same deficiency to develop without harming the planet's resources. Such work must address obstacles such as lack of interest in quality education, misinformation or lack of long-term vision. To

this end, Vaidya and Chatterji (2020) proposed a multidisciplinary approach that seeks to encourage diverse communities to entrepreneurship to promote different sustainable practices for the benefit of society (Franco et al., 2020).

Such a multidisciplinary approach encompasses economic, social, cultural, environmental, spiritual, and other aspects. It seeks the development of an entrepreneurial capacity that contributes significantly to social sustainability, causing more agents of change and development (Franco et al., 2020). This, in order to develop this entrepreneurial capacity, calls for responsible corporate producers, who can encourage and support underdeveloped but resource-abundant cities to grow with the community's well-being in mind.

7.2 *Social Dimension*

According to the Organización Mundial del Comercio (2018), incorporating the SDGs into business policies can contribute to achieving socially sustainable goals such as inclusive growth, jobs, and poverty reduction. Companies with a high public impact place greater importance on social activities within their business policies and financing structure (García-Meca et al., 2021). Many companies have transformed their ways of interacting with their stakeholders to align the objectives that benefit them (Servera-Francés et al., 2020).

For a better overview of the social dimension, there are SDGs 1, 2, 3, 4, 5, 7, 11, 16, and 17, a total of nine that are linked to sustainable business performance in various organizations (Pilgrim & Bohnet-Joschko, 2022). SDG 1 refers to eradicating extreme poverty where the purchasing power of each individual is \$1.90 or less. SDG 4 suggests citizens receive quality and inclusive education worldwide (Sachs, 2015).

SDG 5 addresses issues of gender equality and female empowerment so that women can get decent jobs (Tahir et al., 2018; Moya-Clemente et al., 2019; Günzel-Jensen et al., 2020). SDG 7 seeks people to access modern energy services because more than 1500 million people do not have this benefit. To do this, companies must transform their production model from a more sustainable perspective (Sachs, 2015). At the same time, companies that develop sustainable businesses, including all stakeholders, can obtain economic profitability and social welfare. Figure 3 shows the new goals of the social dimension of the SDGs.

7.3 *Environmental Dimension*

There is an increasingly strong trend toward the care and protection of the environment, which is reflected in consumer preferences and in the strategic plans of companies that demonstrate their responsibility toward the environment in the use of biodegradable materials, in their recycling practices, in the implementation of natural resource saving systems, among others. Pilgrim & Bohnet-Joschko's

SOCIAL DIMENSION



Fig. 3 SDG that encompasses the social dimension of sustainability. Note. Adapted from Corporate Social Responsibility on Twitter: A Review of Topics and Digital Communication Strategies' Success Factors, by Pilgrim & Bohnet-Joschko, 2022 (<https://doi.org/10.3390/su142416769>)

classification (2022) states that the environmental SDGs cover SDGs 6, 13, 14, and 15, and SDG 17 interrelates all dimensions. These SDGs relate to the environmental performance of companies that adopt new environmentally friendly practices in their businesses. The previous text highlights the importance of the SDGs with an environmental focus. Figure 4 shows the SDGs belonging to the environmental dimension of sustainability.

SDG 6 focuses on the excellent use of water and sanitation. The misuse of water resources causes significant problems, often found in the operations carried out by companies in different sectors (Franco et al., 2020). The mining sector comes to be the primary sector that provides the necessary supplies of essential raw materials and energy for various industries; thus, mining and related activities capture people's attention as it is also a sector causing a tremendous negative impact on the environment (Franco et al., 2020). Some negative effects they cause are the destruction of ecosystems, GHG emission and pollution (Vintró et al., 2014; Bustamante et al., 2016).

Given this reality, mining companies are under social pressure that forces them to accept significant commitments regarding responsible and sustainable management,

ENVIRONMENTAL DIMENSION



Fig. 4 SDG that encompasses the environmental dimension of sustainability. Note. Adapted from Corporate Social Responsibility on Twitter: A Review of Topics and Digital Communication Strategies' Success Factors, by Pilgrim & Bohnet-Joschko, 2022 (<https://doi.org/10.3390/su142416769>)

emphasizing achieving SDG 6 (Botín & Vergara, 2015; Franco et al., 2020). Therefore, this sector must achieve the goal of transforming mineral wealth into development opportunities while safeguarding the needs of future generations. To do so, they must apply new strategies focused on efficiently using resources such as water, which is used as an energy source in their operations. It is recommended that companies and their stakeholders test their impact on water resources and how this may affect the environment and surrounding communities (Franco et al., 2020).

On the other hand, SDG 13 binds all governments of the world and leads them to confront and stop man-made climate change (Sachs, 2015). A growing consensus is being recognized that stakeholders from educational institutions and businesses are in favor of better introducing and guiding students throughout their academic journey until they enter the world of work, as they can then be agents of change with new ideas and strategic actions that promote the achievement of the climate-related SDG 13 (Franco et al., 2020).

Creating greater environmental awareness should start from the educational system, so curricula linked to sustainable development and good practices in international trade should be added so that future generations can put them into practice (Franco et al., 2020). Some topics have been incorporated, such as the “3Rs,” “responsible consumption,” (Mahat et al., 2016; Sidiropoulos, 2014) or “disaster risk management” more seen in business curricula (Apronti et al., 2015; Brundiens, 2018; Herrera, 2016; Naoufal, 2014). Similarly, Colliver (2017) notes that the relationship between water flow and climate has been probed by deepening questions on “cleaner production” and GHG emissions (Franco et al., 2020).

The previous text shows that international trade, which encompasses companies, governments, industries, suppliers, customers, and all interested parties, is affected by the actions of each of these stakeholders. Therefore, negative effects on the environment have an impact on society and the economy of each country. International trade is conditioned to sustainable trends and must adopt practices that ensure the protection of the environment so that it does not affect their business through their sales and net income. In this sense, the connection with the economic SDGs is demonstrated. Even with all the efforts made by the United Nations to show progress in each SDG, the involvement of many other organizations is essential to achieve significant progress. Working together is much more profitable than working unilaterally, so SDG 17 makes available the different collaborations it can receive to continue supporting the human cause (United Nations, 2020). For example, in Africa alone, conservation activities generate more than \$29 billion annually, employing 3.6 million people. These funds are targeted to disadvantaged areas or people to promote their development and conservation and give them a means of income of their own (Obrecht et al., 2021).

8 Cases Applied in the Sustainable Business World

The challenges are different for each business and depend on uncontrollable and controllable variables such as the micro and macroeconomic context, the industry, the sector, new consumer demands and preferences, society and communities.

As an example of a company committed to the engagement of the SDGs through stakeholders interaction, there is LG Electronics [LGE], a global company founded in 1958 in Korea, which belongs to the “Computers/Consumer Electronics” industry of the technology sector, the leader in sustainability in South Korea and the world. LGE focused on transparency and innovation as the cornerstones of the company. Subsequently, it was among the world’s top 100 sustainable companies recognized by the Corporate Knights Global Index. The company is among the 100 most substantial companies in terms of corporate reputation and credibility and is included in the Dow Jones Sustainability World Index [DJSI] (Jun & Kim, 2021).

LGE opted for new global operating and corporate governance systems to establish new factories on the European continent and other neighboring countries on the Asian continent. Additionally, in 2008, the company decided to take action for corporate sustainability management [CSM] by implementing new strategies based on the SDGs, creating a new vision focused on cooperation toward a better life for all and with the mission to be a market leader, provide benefits to all stakeholders and be recognized as an economically, socially, and environmentally responsible company (Jun & Kim, 2021).

The company made great efforts to identify key internal and external stakeholders to establish effective communication strategies with each of them. They identified external stakeholders: (1) shareholders and investors, (2) consumers, (4) the government, (5) NGOs and civic groups, (6) communities, (7) Industry alliances include

LGE's alliance with RBA (Responsible Business Alliance) for implementing sustainable practices, and (8) Academia through research and knowledge exchange. On the other hand, they identified internal stakeholders: (1) employees, (2) subsidiaries, and (3) affiliates of the LG group.

In this sense, LGE focused on knowing the needs and interests of each of the parties and achieving participation in terms of information feedback, interacting in a provocative way in assemblies, committees, interviews, surveys, fairs, and official sustainability reports, among others (Jun & Kim, 2021). Sustainable growth and success of the company would be possible through the creation of value for stakeholders, for which it implemented 4 essential activities: (1) sustainability governance; (2) risk management; (3) stakeholder engagement; and (4) strategic social contribution (Jun & Kim, 2021).

Another example is IKEA, a multinational corporation founded in 1943 in Sweden, dedicated to manufacturing and retailing household products. The company has demonstrated its commitment and value given to stakeholders, prioritizing valuing the care of people and the planet through sustainable solutions for a better daily life and affordability through the proper and innovative management of limited resources. The company is aligned with the SDGs, both the brand and the value chain, and advocates commitment and joint work with stakeholders regarding strategic alliances for strengthening and co-creation through interaction in forums, meetings, and partnerships (Sebhatu & Enquist, 2022).

In its journey, the company faced different challenges to achieve its transformation and incursion into sustainable development, all this through the procurement of recycled materials, sustainable consumption, improvements in the working conditions of its collaborators within the entire value chain, actions to combat climate change, and the inclusion of vulnerable communities in its strategies (Sebhatu & Enquist, 2022). The Swedish company wishes to balance economic growth with positive impacts on people, society, and the environment. In addition, given the continuous transformation in the business world, it always seeks to align itself to changes, adapting its processes and transforming the business according to new needs, such as digitalization. On the other hand, the circular economy is also part of IKEA's principles, participating in the regeneration of resources to protect the ecosystem and care for the planet (Sebhatu & Enquist, 2022).

As an example of communication strategy between companies and their stakeholders, there are international fairs which are exciting scenarios to consider as a means of connecting them. A clear example is the international fair BIOFACH 2018 in Nuremberg-Germany, which specializes in commercializing certified organic agricultural products, which becomes a space for feedback and meeting with the participants of the integral value chain, allowing interaction and cooperation between the parts. Producers, marketers, distributors, associations, control authorities, and the government join together, who fulfill the role of promoting ecological practices in agriculture together with the German Ministry of Agriculture [Bundesministerium für Ernährung und Landwirtschaft Deutschland] (López & Vera, 2019).

Another interesting sector to analyze is mining companies, which require viable strategic plans to achieve sustainable growth, mainly considering national and international legal standards and social and ecological factors (Matar et al., 2021). A study of mining companies in Quebec-Canada determined that the mining sector has diverse impacts on the ecosystem, highlighting that it is an interesting source of employment and export. However, the price of metals fluctuates in the international market; likewise, the environment and society are vital actors that require implementing strategies to achieve a sustainable business (Matar et al., 2021).

The study demonstrated the decisive role played by the early identification and involvement of interested parties in the evaluation of the development of sustainable mining projects, especially in the community that should be at the center of the process, which is paramount so that the tools for analysis and definition of social and economic indicators can be used to guide the mining project, guaranteeing economic viability and minimizing the negative effects of activities on local communities and the environment (Matar et al. 2021).

9 Closing Remarks

The business world is affected by the trends that the international market constantly adapts, so it is necessary to keep up to date and develop strategies that provide greater value to customers. For this, it is important to highlight the role of each interested party involved in the business. Stakeholders can contribute to achieving the goals indicated in each dimension of the SDGs by creating an objective with the same direction with actions that allow them to face the various problems of foreign trade from poverty, inequality, and environmental problems in the value chain.

On the other hand, the provided analysis of value creation as well as its concept should also be investigated through business models, which should include the different types of value created with and for different stakeholders and the different types of value that are exchanged between the company and the parties' stakeholders, better known as the resulting value portfolio. In this case, value creation through sustainability applies to businesses that focus on social responsibility, a growing tendency on stakeholders' interests.

Companies have the power within the growth and development of a country at different levels. Early stakeholder identification, ongoing interaction, and cooperation are vital to sustainable business development. The challenges are different for each business, but they all should have the same objective if they want to survive in the competitive international market, and they can do it by being a sustainable business and supporting the development of the economies, implementing a sustainable vision and practices creating synergies to affront economic, social, and ecological problems. International trade positively impacts the global economy, allowing the generation of new business opportunities, employment, poverty reduction, higher income, GDP growth, and well-being of the population. In the business world, a good long-term relationship with suppliers allows access to better prices and

therefore reduces costs without affecting quality. A good relationship with employees results in more efficient processes. Correct corporate management attracts more investors. Implementing sustainable strategies, such as the circular economy model, allows more efficient use of its resources and, in turn, generates positive impacts on society.

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Reshaping the World's Supply Chain? A Case Study of Vietnam's PAN Group Adopting the Circular Economy Concept



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Abstract As a repercussion of the Sino-American trade war and the global outbreak of the COVID-19 pandemic, major economies are seeking ways to reduce dependence on China's production prowess. East Asian economies, including Vietnam, are actively lobbying industrialized economies to consider them as alternate or expanded suppliers in the new global supply chain system. We argue that the current relocalization of factories is at best a political move that might soothe the current protectionism mood and at worst an inefficient business decision. We advocate that the reshaping of the global supply system would be best achieved by engaging all members of the supply chain to embrace the circular economy (CE) core principles to ensure sustainable and equitable economic and social development, both locally and globally. We present a case study of the PAN Group, a dynamic, unconventional, and growing agricultural conglomerate in Vietnam that has been aggressively taking strategic moves toward the circular economy. By examining the implications of PAN Group's accomplishments, we can gain valuable insights into how the principles of the circular economy can be applied to diverse sectors, driving sustainable growth and economic advancements.

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1 Introduction

The supply shock triggered by the lockdown of Wuhan, China in February 2020 raised significant concerns about the sustainability of globalization and its impact on global supply chains. The heavy reliance on China as the world's manufacturing hub, coupled with the relentless pursuit of cost reduction through offshoring, inventory minimization, and asset maximization, left little room for resilience and adaptability in the face of a global crisis like the COVID-19 pandemic (Pandey, 2020). In this chapter, we examine a case study of a dynamic and unconventional agricultural conglomerate in Vietnam, focusing on the need for a comprehensive national approach that integrates proactive firm-level international business strategies and supportive governmental trade policies. By leveraging the current efforts to redefine the global supply chain system, we aim to propose a sustainable framework that addresses the challenges of the future.

Recent evidence suggests that the pandemic and global political move to reduce the trade surplus from China have not worked (Setser, 2020). Thanks to its manufacturing agility, China has responded to the protectionism move from the USA, Europe, and Japan with a substantial export increase. With millions of people working from home and students attending school online during the lockdowns, worldwide strong demand for personal protective equipment, cleaning products, home improvement goods, electronic products for working from home, and e-commerce goods, the trade balance has leaned in favor of China again (Mashayekhi, 2020; Tian, 2021).

The U.S. Biden administration announced in January 2021 a review of the global supply chains for critical components such as batteries for electric vehicles, medical gears, computer chips, and minerals as U.S. manufacturers are severely affected by the shortage of raw materials. It would take months for the review outcome and follow recommendations to come out. But the executive order from President Biden is the latest sign that a new world order that has been the U.S.-China trade dispute triggered by the Trump administration for global supply chain management will take place.

Any shake-up of the well-oiled China-dependent production system involves building an all-new multinational reliable supply chain network with a diversified supply base as well as exploring and establishing new, reliant demand markets. The task has become even more critical for nations with close trade ties with China. Take, for example, the case of Vietnam, which has suffered devastating economic impacts during the pandemic due to close trade ties with China on both ends of the supply chain. At the demand end, many of Vietnam's key industries, including textile and garment, leather, that rely heavily on Chinese raw materials were paralyzed in March and April of 2020 due to the lockdown of raw materials imported from China. As a result, Vietnamese firms were forced to rotate, cut down their workforce, or even shut down their business, resulting in thousands of lost jobs. At the supply end, China remains the largest export market for Vietnam, accounting for more than US \$43.1 billion in 2020, creating a sizable revenue loss during the pandemic. One of

the hardest-hit industries is Vietnam's agricultural sector, which recorded an almost 10% reduction (approx. US\$1 billion in value) in export revenue to China in 2020.

Given the unsettling and uncertain business climate, what should Vietnam do in terms of economic and business strategies to navigate its economy out of the pandemic crisis and position itself in the upcoming new world order? We postulate in this case study that Vietnam—like any other developing economy in the upstream of the supply chain—needs to strategize beyond the low-cost production model that has helped China become the world's second-largest economy. The unprecedented uncertainty leads to an undesirable, but timely, wake-up call for many countries to re-assess and transform their economic strategies to be more resilient and avoid over-reliance on any country, or even a region. In this chapter, we advocate that adopting the Circular Economy (CE) concept in reshaping the global supply chain would create a more sustainable and equitable economy for all participating economies.

2 Sustainability and Circular Economy

Sustainability refers to the commitment to meeting the present needs while ensuring the ability of future generations to meet their own needs (United Nations, 1987). When applied to supply chains, sustainability encompasses long-term economic viability, minimizing negative environmental impacts and embracing social responsibility on a global scale. To achieve sustainable development within supply chain management, both private and public must prioritize resource conservation, waste reduction, and environmental pollution mitigation. This approach considers the entire lifecycle of products and services, from sourcing raw materials to end-of-life disposal, to optimize efficiency and minimize ecological footprints.

As explored further in this chapter, the circular economy presents an economic model that seeks to eliminate waste and promote the continuous use of resources. It advocates for the reuse, repair, and recycling of materials instead of discarding them as waste. The current global supply chain, centered around China as a major production hub and the rest of the world as consumption platforms, has demonstrated unsustainable practices, such as dangerous dependence on finite resources and a lack of viable alternative sourcing opportunities. In contrast, the foundation of a circular economy lies in responsible sourcing practices, ethical labor conditions, efficient logistics, and crucially, collaboration with suppliers and consumers to drive social responsibilities. By prioritizing transparency, traceability, and accountability, the circular economy not only mitigates disruption risks but also creates shared value for all stakeholders involved (Bui, 1999).

It is evident that the existing supply chain arrangement falls short in terms of sustainability and long-term viability. Embracing a circular economy framework can address these shortcomings by redefining the relationship between production, consumption, and waste management. This transition requires collaborative efforts from both the public and private sectors to establish the necessary frameworks, policies, and incentives for circularity. Ultimately, integrating sustainability and

circular economy principles within the supply chain not only ensures a more resilient and responsible system but also contributes to the well-being of future generations.

However, implementing sustainability within the global economy presents various challenges and difficulties. However, implementing sustainability within the global economy presents various challenges and difficulties described in Seuring and Muller (2008). The current network of supply chains presents a complex and fragmented landscape, involving numerous stakeholders, processes, and geographical locations. This complexity often hampers effective communication and collaboration among suppliers, manufacturers, distributors, customs authorities, and retailers, hindering the implementation of sustainable practices.

One of the significant challenges is the limited availability of shared data from all involved parties. This lack of data transparency poses difficulties in monitoring performance and tracking progress toward sustainability goals. Without comprehensive and accurate data, it becomes challenging to assess the environmental impacts of supply chain activities and identify areas for improvement.

Stakeholders within the supply chain often have their own priorities, limitations, and resistance to change. This can make it difficult to establish consistent and widespread compliance with best sustainable practices, especially in a global supply chain context. Suppliers may cite financial constraints and concerns about increased costs as reasons for non-compliance, creating barriers to the adoption of sustainable practices.

Furthermore, regulatory and policy frameworks in many countries are insufficient and fragmented, lacking consistent enforcement mechanisms. The absence of robust regulations and policies related to sustainability in supply chains creates challenges for organizations striving to implement sustainable practices. Inadequate regulatory frameworks make it difficult to drive industry-wide change and ensure a level playing field for all participants.

The global supply chain with China as a major production hub for the majority of global consumption has demonstrated a failure in sustainability: dangerous dependence on finite resources, lack of adequate alternate sourcing opportunities, and promotion of unsustainable consumption patterns. The foundation of a circular economy relies on responsible sourcing practices, ethical labor conditions, efficient logistics, and last but not least, collaboration with suppliers and customers to drive social responsibilities. Unlike the current supply chain arrangement, transparency, traceability, and accountability embedded in the circular economy not only mitigate risks of disruption but enhance brand reputation and create shared value for all stakeholders involved.

3 Vietnam and the Reshaping of the Global Supply Chain

While most world's economies have experienced a GDP contraction, the World Bank estimated a 2.8% GDP growth for 2020, and the Vietnam Institute for Economic and Policy Research (VEPR) predicts that expansion could be up to

5.8% for 2021. According to the Japan External Trade Organization (JETRO), Vietnam was the only economy that posted an increase in exports for 2020, up 7% to US\$282 billion, outpacing Indonesia, Malaysia, Singapore, Thailand, and the Philippines. Notably, Vietnam's exports to the world's top two economies—the USA and China—rose by 25.7% and 18%, respectively.

Vietnam has been recognized as one of the most effective countries in the world in containing the spread of COVID-19. Its economic outlook is praised by UBS as one of the brightest in Asia as the world is struggling to sustain its economies with the pandemic looming (Ng, 2020). As major economies are seeking ways to adapt to the new global supply chain system, Vietnam and other East Asian economies are being actively courted to be part of a new global strategy to reduce dependence on China's production prowess.

As evidenced by a recent resurgence in FDI, the unexpected and unprepared opportunity poses a daunting challenge to Vietnam that is to strategically prove itself as a global cost-efficient partner to be at least as competitive as China, India, Malaysia, Thailand, and others. In doing so, the issue at hand is how an economy such as Vietnam would set its firm-level business strategies and economic policies and avoid the common pitfalls of rapid growth and industrialization (World Bank, 2020a, b).

3.1 Low-Hanging Fruit Approach to Relocation

On July 20, 2020, Japan announced its “China Exit” policy. It released a list of 87 manufacturing projects eligible for subsidies to move production out of China (Nikkei Asia 2020).¹ Fifteen of them have been designated to be moved to Vietnam, and the Japanese government would subsidize US\$567 million to facilitate this migration. The move by Japan and the Western economies has certainly benefited countries like Vietnam, at least in the short run. However, recent trade statistics have shown that since the midst of the 2020 pandemic, China's exports to developing countries have increased substantially.

A closer analysis of the profiles of these Japanese companies suggests that the selection seems to be based on what the Japanese perceive as what Vietnam can produce. The 17% share of the pie (15 out of 87) also indicates Japan's move to diversify its supply chain network with other South East Asian economies. Japan's policy seems to be driven more by political moods than by sound economic analysis. Before the COVID-19 outbreak, Google did already take over the Nokia factory outside Ho Chi Minh City to produce their Pixel phones. Less than a year after, in May 2020, Apple announced it would speed up the production of its best-selling AirPods in Vietnam and it is shifting iPad production from China to Vietnam

¹Retrieved from Nikkei Asia: <https://asia.nikkei.com/Economy/Japan-reveals-87-projects-eligible-for-China-exit-subsidies>, July 2020.

sometime in May 2021 (Ting-Fang & Li, 2020). While Intel remains committed to keeping its production facilities in China, primarily to serve this gigantic market, it joins Nintendo and Puma to open factories in Vietnam.² There is an apparent correlation between the types of products Vietnam has manufactured as a nation, mostly low-value-added products, and the multinational corporations (MNCs) that have plans to move mass production from China to its southern border (e.g., the 15 Japanese firms being subsidized by the Government of Japan to move to Vietnam and the electronics for Apple and Google). We contend this is a low-hanging fruit solution that requires little structural change in the current supply chain, and all of the 15 Japanese companies already had their limited business presence in Vietnam.

An August 2020 study by the Bank of America suggests that moving the locations of some of the low-value manufacturing nodes in the chain out of China to neighboring economies would cost the U.S. and European firms US\$1 trillion (Smith, 2020). Since it is an expensive move, it remains to be seen if newly relocated factories could achieve the “low production cost” strategy that took China more than a couple of decades to perfect. In fact, subsidies from governments to attract these shifts would be counterproductive, from an economic perspective. Shifting a complex manufacturing system driven uniquely by tax incentives might cause long-term economic and social costs if the move cannot warrant a more cost-efficient production. In the next section, we briefly describe the importance of Foreign Trade Investment to developing economies like Vietnam.

3.2 The Role of Foreign Trade Investment

National economic policies can help create an international business climate that is conducive to trade and cooperation. In its 2021 assessment, the International Monetary Fund acknowledges the resiliency of Vietnam’s economy thanks to robust economic fundamentals, swift containment measures of the pandemic, and government support in strategic sectors (Dable-Norris & Zhang, 2021). However, it seems that the MNCs have the final say in reshaping global trade. Kim et al. (2020) study the relationships between Vietnamese foreign trade investments in Vietnam and the country’s exports from 2003 to 2017. Their findings show that not only MNCs dictate how factory locations are selected, and consequently, how the production networks and composition of trade of the world are redistributed. But most strategically, location choices may reassign production technologies across countries, in favor of those who manage to attract FDI.

Using data provided by Vietnam’s Ministry of Planning and Investment (MPI), Trading Economics reports that FDI contracted by 2% in 2019–2020, but picked up

²This link provides a list of companies shifting their production from China to other countries, including Bangladesh, Cambodia, India, Indonesia, Malaysia, South Korea, Taiwan, and Vietnam. Retrieved from <https://www.lovemoney.com/gallerylist/98705/big-multinational-companies-moving-out-of-china>, July 2020.

by 6.5% in 2020–2021.³ It is expected that FDI will rise to US\$22 billion, or approximately 8% of the GDP—significantly higher than the world's average estimated to be between 2 and 3%.

3.3 A National Policy for Sustainable Development Through the Circular Economy

If Vietnam is just seen by MNCs as a partial substitute for China's low-cost production powerhouse, the nation's primary challenge would be to change how the world perceives its economic, social, and political environments. With a young but rapidly aging labor force, rising living standards, and inadequate infrastructure, can Vietnam get a larger share of some of its neighboring countries, such as Indonesia, Malaysia, and Thailand? The World Bank reminds that the global environment remains severely affected by the raging pandemic and Vietnam's economic health which depends on exports is not immune to an economic crisis. It argues that only a competitive and dynamic private sector could mitigate these external risks (World Bank, 2020a, b).

In its January 2021 National Assembly meeting, the Vietnamese government passed a resolution to consider the Circular Economy (CE) approach to be a national strategy to sustain economic development through the implementation of the Circular Economy principles. The resolution that encourages the public–private partnership (PPP) model illustrates an offensive–defensive economic strategy. On the defensive side, the country is trying to sustain its exports in a global recession and to expand its domestic market with continuous cost-cutting efforts. On the offensive side, the country is seeking to market itself as a more desirable environment for FDI through an aggressive corporate strategy that includes a business process (re)-engineering, HR policies that aim at talent management, and national branding. Throughout the case analysis in the following sections, we will discuss the feasibility of a national effort to become the world's supplier and buyer that embraces the basic principles of the CE.

4 The Circular Economy and the Reshaping of the Global Supply Chain

4.1 The Emergence of the Circular Economy as a National Economic Strategy

The Circular Economy (CE) has recently emerged as a promising and innovative approach to increasing competitiveness and self-reliance, thanks to its combined

³Data retrieved from Trading Economics: <https://tradingeconomics.com/vietnam/foreign-direct-investment>, July 2020.

economic, environmental, and social benefits (Murray et al., 2017). China, Japan, the USA, and the European Union were among the earliest nations to issue policies to support the adoption of CE (Ghisellini et al., 2016; Winans et al., 2017). Emerging economies, including Vietnam, have also recently pivoted to CE (Preston et al., 2019).

Among the earliest advocates of CE, the Ellen MacArthur Foundation (2012) suggests four fundamental building blocks for the transition toward CE:

1. Circular product designs which aim to maximize the utility and value of raw materials, components, and products by extending the product life, changing to recyclable materials, and adopting an eco-design approach (Mont, 2008; Bakker et al., 2014).
2. Servitized business models which encourage switching from selling to renting, leasing, or sharing technical products, thus promoting better management of product life cycle (Angelis et al., 2018; Batista et al., 2018; Lacy & Rutqvist, 2015).
3. Reverse logistic supply chains that enable “renovation” activities such as repair, reuse, refurbishment, remanufacturing, and recycling, allowing companies to reduce waste and improve profits (Parajuly & Wenzel, 2017; Kazemi et al., 2018).
4. A number of enablers and favorable conditions including users’ awareness toward sharing, policy and regulation, financing, and the creation of a market for secondary products, and digital technologies (Bressanelli et al., 2019; Saidani et al., 2018).

CE thus differs from the traditional linear economy based on the “take-make-dispose” model, in that it disentangles the economic growth from resource extractions and the associated negative impacts on the environment (Elia et al., 2017). This allows businesses that integrate CE into their supply chains to obtain environmental, social, and economic benefits (Ongondo et al., 2013; Cucchiella et al., 2015; Genovese et al., 2017; Schmid & Ritzrau, 2018; Kuch, 2022). The conceptual framework of supply chain management for CE has been developed by Hazen et al. (2021) and Montag (2022) to support the transition from traditional linear approaches to production and consumption to a more circular approach.

The six R’s principles that govern CE models, namely *Recover*, *Reuse*, *Remanufacture*, *Recycle*, *Redesign*, and *Reduce* are expected to improve resource efficiency and sustainable supply chains (Manavalan & Jayakrishna, 2019). Theoretically, recover, recycled, and reusable products could ensure a closed-loop supply chain of inputs, and so improve competitiveness through less reliance on raw materials from external sources. Through remanufacturing, businesses could also reduce emissions and wastes, helping them save money as well as meet environmental regulations. Also, making redesign products could allow businesses to quickly adapt their facilities and shift production to another product allowing them to be more agile and resistant to external shocks.

With these potential benefits, CE has recently attracted attention from both academics and practitioners, who have focused mostly on the integration of the

CE concept into supply chains for its impacts on sustainable development. However, CE's concern about implementing and developing self-reliant and resilient supply chains is critically overlooked. Moreover, most of the existing works take the perspective of developed economies while insufficient attention has been paid to developing countries. Differences in institutional and political antecedents and the rapid pace of growth and industrial development in emerging nations may require very different approaches for CE integration than those applied in developed countries. For example, the agricultural sector has received minimal attention in global CE discussions to date but may need to take a central role in the CE pathways of many developing countries.

4.2 The Circular Economy and the New Global Supply Chain

The supply disruption during the early months of the COVID pandemic caused a global shock. Manufacturers and their suppliers around the world were reminded how interdependent they are between them. With the increasing complexity of product design and manufacturing, contractors and subcontractors are highly specialized. As an example, Boeing has more than 12,000 supplier-partners, and approximately 6000 of them are small and diverse businesses.⁴ While the company claims that its dense global network of suppliers has significantly added value to its products and services, it also acknowledges that coordination is time-consuming and expensive. A surprise disruption such as the one caused by the pandemic did temporarily bring many manufacturing projects to a halt. A conventional mitigating strategy would be to increase inventory to face another disruption due to shortage. However, this strategy is equally costly and it would not even work if more and more suppliers are rendered incapacitated due to production interdependence.

The CE would alleviate this problem, as the production ecosystem would be broken down into local and tightly-coupled ecosystems, while interdependencies across ecosystems are reduced thanks to a loosely coupled design. The CE would also advocate for a redeployment of markets. Instead of following the decades-long linear supply chain that originates from low-labor economies and ends up in consumption at high-purchasing power economies, CE would have region-centered "sub-systems" to partially turn inward. That is only a proportion of the location production will be exported along the global supply chain, and the rest will be consumed locally.

As such, what we contend here is that a CE-driven supply chain system will alter the current structure of supply and demand, from a quasi-linear one-way supply chain architecture to a honeycomb-like web of circular structure that takes into consideration the national and regional geo-political realities, as illustrated in Fig. 1. The historical and conventional supply chain is for developed economies to

⁴Retrieved from The Boeing Company: boeing.com, April 2022.

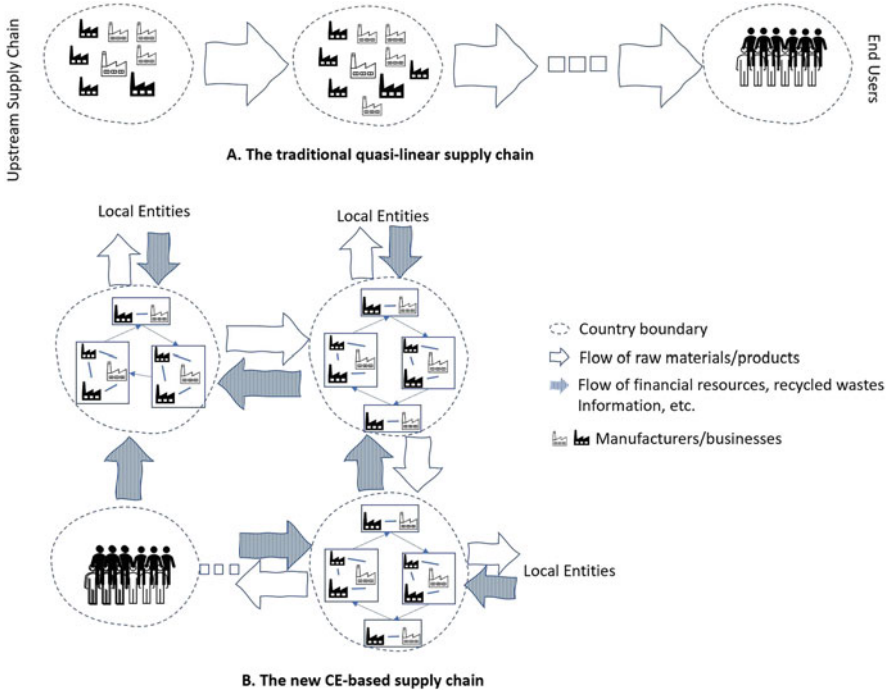


Fig. 1 Proposition of a new global supply chain concept based on circular economy. (a) The traditional quasi-linear supply chain, (b) the new CE-based supply chain

take advantage of low-cost off-shore production. In return, the arrangement would allow developing economies to implement their export-driven economic policy (Part a of Fig. 1). In the proposed CE-based supply chain, each node in the supply chain is a business entity (either independent partner-enterprises within a country, or a participating economy as a whole) that is loosely coupled with other nodes as part of the collaboration and coordination of the flow of goods (i.e., raw materials, semi-, and finished goods), financial resources (i.e., investments, equity, profit sharing), and information (i.e., production, R&D, and market data).

5 Vietnam and the Circular Economy Movement

5.1 The Circular Economy Movement

As a developing economy anxious for raising its living standards, Vietnam is facing an increasing amount of waste while raw materials and fossil fuels are exhausted at a rapid rate. As such, the transition to CE would offer Vietnam an opportunity to develop rapidly and sustainably, not only fulfilling its economic, social, and

environmental potentials but also reducing its dependence on external economies. However, as the CE concept is relatively new to Vietnam, the transition will require policymakers, development agencies, and businesses to understand and address challenges specific to the country's conditions. This is crucial since differences in each country's stage of development, economic and structural conditions, capacity and financial constraints, resource endowments, and more importantly, political institutions would necessitate tailored strategic responses that could not be easily replicated from developed-country experiences (Preston et al., 2019).

The potential challenge for Vietnam in its CE transition is the lack of institutional capacity and enabling governance frameworks. Preston et al. (2019) caution that the lack of strong governance frameworks could lead to problems with the establishment and enforcement of appropriate regulations and mandatory standards to govern circular activities, as well as result in developing countries installing "cheap but limited-quality technologies and equipment mis-sold under the guise of a CE" approach. There is evidence, for example, that waste-to-energy technologies reliant on incinerators are regularly sold in developing countries that lack proper testing facilities or oversight for the use of such equipment. Access to finance and/or technology is some other potential roadblock in Vietnam's pathway to CE. Activities associated with "linear" (i.e., non-circular) resource extraction and processing often account for the bulk of financing, foreign exchange earnings, and foreign investment in emerging economies. Resource-led development—which focuses on leveraging the potential investment in, and revenue and jobs from, natural resource sectors—has been a popular goal among foreign investors and even major international donors in recent years. International partners have often been significant supporters of resource-led development: between 2008 and 2015, multilateral development banks (MDBs) provided over US\$83 billion in public financing for fossil fuels alone. OECD analysis of private-sector resources mobilized for development reveals that almost half of these resources are focused on energy, industry, mining, and construction (Preston et al., 2019).

The above discussion highlights that the restructuring of Vietnam's economy to enable more "circular" activities will require a major shift in infrastructure, industrial processes, innovation priorities, and more importantly, strong government support. The engagement of many stakeholders, including governmental and nongovernmental organizations, businesses, and research institutes helps to improve supply chain collaboration and sustainability performance in a CE (Sudusinghe & Seuring, 2022). Many steps in the right direction have been taken by Vietnam's government. In the recent National Congress of Vietnam's Communist Party in 2021, CE has been fully endorsed as a key national strategic direction in the next decade in order to achieve the SDGs, with emphasis on SDG9 Industry, Innovation, and Infrastructure; SDG11 Responsible Consumption and Production; and SDG13 Climate Change. That is the latest step following national action plans on promoting green, sustainable growth and modernizing rural areas that includes many policies, plans, and actions that fit perfectly with the transition toward a circular economy, especially in the agricultural sector. At a lower level, academic institutions, governmental organizations, and businesses have also been actively involved in the

movement. In July 2020, Vietnam National University in Ho Chi Minh City established the Institute of Circular Economy Development, the nation's first institute on CE. Similar institutes and nongovernmental organizations have also been established such as Da Nang Circular Economy Hub, or the PRO Vietnam (Packaging and Recycling Organization).

5.2 *Circular Economy and the Agriculture Sector in Vietnam*

Around the world, leading industries have begun to operate on the CE model. According to research by Accenture Strategy, the CE model can open up opportunities worth up to US\$4500 billion and create millions of jobs for the global economy by 2030 (Accenture Strategy, 2015). The new job creation is mainly in the manufacturing sector. In Vietnam, CE is more opportunistic in the agriculture sector at present since it is in a transitional phase from producing low-value-added commodities to high-value-added final food products. The application of the CE model is a sustainable development path to achieve two goals: responding to the depletion of resources on the input side and addressing the environmental consequences on the output side.

There is relatively minimal attention that has been given to the concept of CE in many low-income and middle-income countries (Halog & Anieke, 2021). Particularly, from a sustainable perspective, CE is hardly applied in developing countries (Ahmed et al., 2022). In the context of resource scarcity and degradation, the CE concept has gained attention in the agricultural sector. In Vietnam, the percentage of people working in the agricultural sector has steadily decreased over time. Yet, it still accounts for 39% in 2020.⁵ As such, a CE transition in the agricultural sector will take a meaningful and impactful pathway since agriculture contributes to almost 15% of the national GDP and 76% of the population living in rural and mountainous areas (World Development Indicators 2020). In these areas, agricultural labor accounts for 52% of the workforce. Vietnam's overall agri-food industry (including food processing) is expected to grow further in the coming years, presenting tremendous opportunities for applying CE to realize its full potential and improve the livelihood of small-holder farmers who constitute the majority part of the sector and still produce to earn marginal profits. Vietnam, as a largely agricultural society, does benefit from many traditional practices in agriculture that are naturally circular. For thousands of years, Vietnamese farmers have used cattle manure as organic fertilizers or utilized rice straws for heat and power generation. The challenge thus is to design innovative CE models to systematically scale up these practices and generate tangible benefits for all involved stakeholders.

⁵Data retrieved from Statista: <https://www.statista.com/topics/5653/agriculture-in-vietnam/>, April 2022.

Over the past 22 years, Vietnam's agriculture sector has made significant achievements, with an average growth rate of 3.4% per year (World Development Indicators), firmly ensuring domestic food security and agricultural export turnover. During the same period, value-added per worker in the agriculture sector has increased from \$541 in 1997 to \$1306 in 2019, while the contribution of the sector to national GDP has reduced from 26% to 14% (World Development Indicators). In recent years between 2015 and 2019, the agriculture sector has shifted positively in the direction of modernization by efficiently reducing the proportion of the farming sector from 49.7% to 46.3%, increasing the proportion of the fishery sector from 22.5% to 25.1%, and increasing the forestry sector from 3% to 4.25% (MARD).⁶

However, until recent years, the development of the agriculture sector in Vietnam has only been focused on the mass production of output, neglecting the utilization of wastes in the production process, leading to wasteful use of resources and environmental damage. Moving up the value chain, the agriculture sector has the opportunity to integrate the CE model into the production process by utilizing fewer raw materials, reducing the amount of waste to the environment; thus, generating more economic value while achieving sustainable development. It is the nature of the CE to turn waste from producing one product into a resource for producing another product, which is biologically natural in the agriculture sector. For agricultural commodities, CE is applied to the production processes for minimizing, reusing, recycling, and recovering materials at different stages, thus reducing production costs for businesses. This is the main difference from the traditional agricultural economy which is only interested in exploiting resources to maximize production, causing environmental damage.

The development of the CE must be associated with technological innovation and R&D. However, because most forms of agricultural production in Vietnam are small-scale and lack forward and backward linkage, there are not many production facilities that apply innovative practices and make use of raw materials efficiently to increase the value-added of agricultural products. For large agricultural production establishments, agribusinesses have applied several technological innovations in the production process to take control of the value chain. However, the number of these businesses is relatively small and currently at different stages of integrating the CE model. Investment activities for building infrastructure to support the CE model only limit to projects that yield immediate and short-term benefits, not including the complete infrastructure system to make the most out of the model in the long run.

The next section provides a case study of the PAN Group, one of the most successful agribusinesses in Vietnam that has developed a sustainable development strategy using the CE model.

⁶Retrieved from the Ministry of Agriculture and Rural Development (MARD): <http://www.mard.gov.vn>, April 2022.

6 Circular Economy and Sustainable Transformation of the Agricultural Sector: A Case Study of the Pan Group⁷

6.1 Methodology and Data Collection

In order to thoroughly examine how an emerging economy addresses the concept of circular economy, we deliberately selected a setting that offers a rich context. This context is vital as it can significantly influence the implementation considerations involved in implementing circular economy practices, encompassing unique social, economic, and political factors. We chose Vietnam's economy as we had access to reliable and trusted sources of information from the company in which we conducted the case study, as well as from primary and secondary external data sources.

We conducted an in-depth and interpretive case study approach, focusing on one of the country's largest and growing agri- and aqua-product companies. This particular company exhibited a proactive and forward-looking management style. However, the group as a whole comprised a diverse range of agricultural farms, some of which were slower in embracing innovation. Due to the relatively new nature of circular economy concepts, limited quantitative data was available. Consequently, employing a qualitative method enabled us to capture the intricacies of this complex industry more effectively. Case studies provide valuable insights into understanding the dynamics of the study (Yin, 2009). We collected primary data through interviews. Through an initial industry analysis and general research on the circular economy in Vietnam, we identified a key informant who guided us in selecting interviewees. This approach is well-documented in the research method literature (Eisenhardt & Graebner, 2007).

6.2 The PAN Group

The PAN Group is an agribusiness established in 1998 with a mission to advance Vietnamese agriculture. As a pioneer, the PAN Group differentiates its business from other large agriculture conglomerates in Vietnam by integrating value chains through acquisitions as an accelerated means to provide people with food security, quality and safety, and nutrition. The company's vision is an integrated value chain and innovative solutions connecting *Farm, Food, Family*. Recently, the PAN Group has acquired small- and mid-cap-size companies nationwide and has strategically invested in them with the goal to turn them into sustainable businesses. Acquired companies such as Aquatex Bentre, Bien Hoa Confectionery Corporation (Bibica),

⁷This section benefited from interviews with senior executives at the PAN Group and public information available from the company's website, <http://thepangroup.vn>. However, the authors are responsible for the information provided in this case study.

Vinaseed, 554 Nha Trang Seaproduct JSC, Sao Ta Foods JSC, Lafooco, Vietnam Fumigation Company JSC, Golden Beans have become leading sustainable agriculture and food companies under the PAN Group.

Green production is the sustainable development strategy of the PAN Group. The PAN Group is a member of the Vietnamese Business Council for Sustainable Development (VBCSD), which is a member of the World Business Council for Sustainable Development. The company is also a member of the Sustainable Trade Project of the World Trade Organization, the UN Food and Agriculture Organization (FAO), and the International Union for Conservation of Nature (IUCN). The Group is committed to economic growth with long-lasting values of sustainability—environmental, social, and corporate governance (ESG).

The sustainable development strategy of the PAN Group fits into the framework of CE promoted by the Vietnamese government. One of the main criteria to acquire and invest in companies is the potential to promote CE toward sustainable development. Vietnam currently has approximately 750,000 enterprises, of which only 2000 enterprises are members of VBCSD. This is relatively a small number since CE is still a new concept for many Vietnamese businesses, especially SMEs. The PAN Group is in fact leading the implementation of CE strategies in their business model.

6.3 More Than Meets the Eyes: The Circular Economy in Action

The PAN Group invests in companies through acquisitions to integrate and increase value-added, bringing the highest benefits to all stakeholders while respecting their management, existing resources, and potential development. The PAN Group ensures information transparency and provides the best interests and equality to all shareholders, including minority shareholders. With respect to environmental sustainability, the PAN Group is committed to minimizing negative impacts on the environment. The company has created an environmental management system based on international standards to strictly control the effects of the production process on the environment. Last but not least, the PAN Group's CSR focuses on creating the best value for employees, customers, partners, suppliers, and communities. The long-term strategy for sustainable growth has yielded significant progress in expanding the agricultural market, developing new products, and strengthening production capacity.

The PAN Group's core business is divided into two subgroups—farm and food, integrating the value chain from inputs to outputs, from local to global through circularity. The Group's farm business has been built and developed through PAN Farm JSC (PAN Farm), with the comparative advantage of innovative solutions in seeds and agricultural inputs, and advanced farming practices. PAN Farm has partnered with foreign firms and universities in R&D to develop premium inputs, including seeds, sustainable tillage measures, green infrastructure, agritech products,

and eco-friendly farming materials that are highly resistant to climate change; thus, addressing the pressing problems of the agricultural sector in Vietnam. On the farming practice side, the Group aims to add value to the products through innovative farming solutions developed internally and acquired from Japanese partners. By applying sustainable certifications in the production process such as Global Gap and Viet Gap to flowers, fruits, vegetables, and rice, the Group provides high quality and safe, traceable products to domestic consumers and exports to high-end markets such as Japan and the EU. The success of PAN Farm is attributed to having a completed and traceable production value chain from seeding, cultivating, processing, preserving, and packaging.

The PAN Group's penetration strategy into the food industry is through PAN Food JSC (PAN Food) with two core segments: everyday food and indulgence food. The everyday food segment targets Vietnamese consumers with traditional products such as packaged rice, frozen seafood, and fish sauces. These products are traceable, high quality, and nutritious at reasonable prices. The indulgence food segment provides products such as confectionery, organic nuts and beans, and other natural foods. This is the strategic segment of the PAN Group in the coming years and is expected to become the fastest-growing segment of the company. The Group has developed a domestic distribution network with more than 137,000 points of sales (POS) and exports to more than 30 countries.

There are several challenging factors in the CE-related barrier studies in the food industry, including technological difficulties and R&D deficiency, and problems in innovations (Pannila et al., 2022). A key success of the PAN Group is its commitment to R&D. The R&D team comprises highly respected research institutes and universities in Vietnam and overseas, as well as strategic partners in the agriculture industry, including with leading national university in agricultural research (e.g., Can Tho University, Nong Lam University) and foreign institutions (e.g., KU Leuven, Universiteit Gent, APSA, and Sakata). The Group owns three R&D outlets and 10 testing centers across Vietnam, suitable for testing plant varieties in different climates and soil conditions. In the agricultural sector, R&D emphasis is on plant breeding and biotechnology to develop stable food crops to stabilize the quality and productivity of farmers. In the aquacultural sector, R&D activities focus on fish dietary requirements and nurseries, disease control, efficient aquaculture solutions, and the development of value-added products. In the food sector, the core objectives of R&D are the enhancement of nutrition, food quality and affordability, and the environmental production process through the development of new technology, products, and packaging design.

Another example is the effort in the CE that drives the participation of Huro Probiotics, a member of the PAN Group, in a UK research project to develop SPORCOV, a COVID-19 preventive product. Huro Probiotics provides raw materials in the trial stage, but later the company will be responsible for the development of industrial-scale production. The participation of the PAN Group in this scientific research project was the result of the R&D partnership between the Group and researchers at the University of London a few years earlier.

Both PAN Farm and PAN Food have achieved sustainability in their operations at different stages. In recognizing that these achievements bring tremendous benefits, the model also has its drawbacks. One of the drawbacks is short-term costs. Since the implementation of the CE concept requires substantial initial fixed costs, but the benefits are expected to be materialized over the long run, the company must strike a balance between costs and benefits in order to respond to divergent expectations of its stakeholders, both domestically and internationally. Pannila et al. (2022) argue that one of the most challenges in applying CE concepts to the food supply chain is cost efficiency considerations. Other economic factors mentioned included issues in investments, with respect to scalability and replicability. Economic sustainability must be guaranteed first before social and environmental sustainability can be completed in the CE model. In order to achieve economic sustainability, PAN's long-term strategy is to penetrate the global markets while sustaining the lucrative local markets, as reflected by the group's investment portfolio. The Group's portfolio consists of 55.75% domestic shareholders and 44.25% foreign shareholders. The company seeks to develop strategic partnerships with foreign companies with expertise in agriculture and food, including Tael Two Partners Ltd. and Sojitz Corporation. These strategic investors support the PAN Group to create a full value chain in the agriculture and food processing industry in Vietnam and to support the company in gaining overseas market access through their global supply chain network. For instance, the business alliance between the PAN Group and Sojitz Corporation provides the opportunity for the company to gain Japanese technological expertise and consumer network in Vietnam at home and abroad in order to create new value. Similarly, Daiwa Security Group's equity investment in the PAN Group supports the joint venture PAN-SALADBOWL in expanding the market in Japan. The International Finance Corporation (IFC)'s investment in PAN Farm supports the company's effort on sustainability by applying the strict IFC performance standards on environmental and social responsibility in its agricultural business. In short, by offering equities to international investors, the PAN Group has successfully leveraged best practices in sustainability as well as gained domestic and global market shares.

International trade is a core strategic component of the PAN Group. The Group has prepared to capitalize on free trade agreements, including the Vietnam-EU Free Trade Agreement (EVFTA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the Regional Comprehensive Economic Partnership (RCEP). In order to gain access to high-end markets in these member countries, businesses in Vietnam must meet the requirements and regulations stipulated in the trade agreements on sanitary and phytosanitary measures such as food safety, animal and plant quarantine; country of origin; rules of origin; environmental and labor standards; and social responsibility. The CE model toward sustainable development has helped the PAN Group position itself as the leading agriculture and food company to enter the toughest export markets. For example, Sao Ta Foods JSC, one of the largest shrimp producers in Vietnam, was immediately capitalized from the EVFTA when the trade agreement came into effect in 2020 thanks to its strict compliance with international standards, including the Aquaculture Stewardship

Council (ASC). Only 5% of shrimp producers in Vietnam have this certification. In another example, Vinaseed, a member of the PAN Group, is able to export high-quality rice to the EU under its own brands JV Pearl Rice and RVT Fragrant Rice, at a much higher price, due to its comprehensive value chain to ensure the products meet EU standards. Other Vietnamese rice producers export through conventional channels to the EU, involving only hulling and milling, under foreign brands when the products reach the retailers.

6.4 High Cohesion/Low Coupling Strategy as a CE Approach to Supply Chain Design

As an ecosystem, the success of the PAN Group is its respect for the current market structure of the Vietnamese agricultural sector which is historically highly fragmented and firmly anchored in local traditions and best practices. The Group deploys a unique merger-and-acquisition (M&A) strategy that brings in additional financial resources, R&D assistance, and management know-how to assist the businesses that the acquirer to re-invent themselves and to be part of a “group” network to help them reach out to a larger global network. This concept is similar to the design principles in computer software architecture. As a “bottom-up” approach, the Group is, by its very nature, a collection of independent businesses. By bringing new resources—financial, technological know-how, and business best practices—the management “tightens” the cohesiveness of each of the business units so that each could excel in its individual and specific business activity and sustain itself, as a location-dependent business ecosystem.

At the corporate level, the PAN Group is a conglomerate of quasi-independent, autonomous farm, and food enterprises with a revamped and tightly cohesive organizational structure. Relationships between all stakeholders of each “local” enterprise are strengthened with a conglomerate policy to promote: (i) shared knowledge, (ii) shared goals, and (iii) mutual understanding and respect. Personnel training to improve the internal quality of communications with a focus on frequency, timeliness, accuracy, and problem-solving (Gittell, 2006). The Group also seeks to ensure best organizational practices promoting cross-functional activities and addressing conflict resolution.

The loose coupling between independent business units is to coordinate strategic decisions related to investments, R&D, marketing research, public relations, and coordination mechanisms with an emphasis on synergistic efficiency. In terms of governance, the group plays an advisory role with no major change of management at subsidiaries after the merging. The PAN Group also exerts effort to support management practices consistent with the CE principles. In particular, subsidiary-level innovation through R&D support, process improvement, quality control, and export market expansion is greatly encouraged. As the Group grows with the acquisition or creation of new business units with new identities and new products,

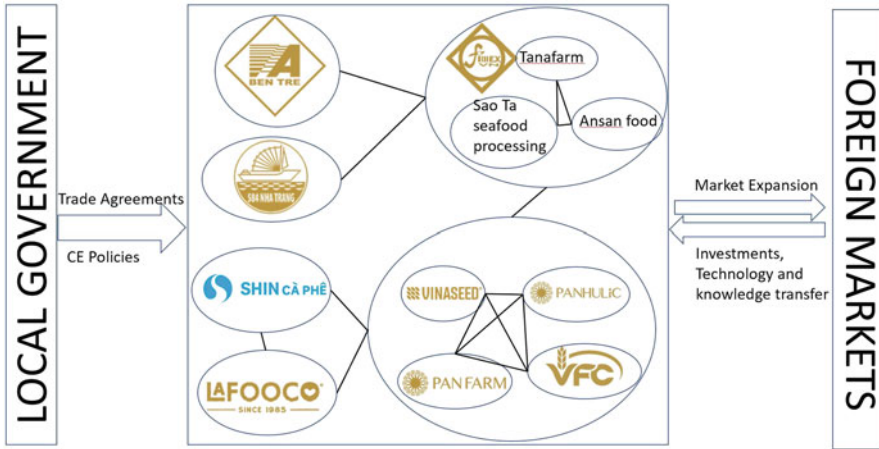


Fig. 2 The PAN group CE-based supply chain

the company also attempts to link independent businesses by sharing resources whenever appropriate and opportunistic. This allows for knowledge spill-over and great synergy for mutual benefits among the group members. For example, Shin Cà Phê (Shin Coffee—owned by the Golden Beans) learned greatly from Lafooco’s compliance process to export cashew nuts to Japan. This enables them to gain access to the Japanese market shortly after being acquired by the PAN Group, which would have taken much longer without the knowledge sharing from Lafooco.

The high cohesion and low coupling strategy, as illustrated in Fig. 2, allows the PAN Group to establish a corporate structure that facilitates the transformation from a quasi-linear one-directional supply chain structure to a circular one.

On the one hand, each “local” node in the supply chain is allowed ample flexibility to craft its own CE strategy based on the very nature of the products it produces and the local ecosystem it is in. Investments are subsidized to develop waste and recycled materials. On the other hand, the synergy at the corporate level enables these nodes to link in a true CE approach where the wastes from one process are utilized as inputs for another. According to the CEO of the PAN Group, the Group has successfully implemented the CE model in the following member companies (The PAN Group)⁸:

- Aquatex Bentre uses pangasius by-products as animal feed and to extract oil. Wastewater from the factories is treated and reused. Water in the ponds is reused according to RAS technology.

⁸Retrieved from the PAN Group: <https://thepangroup.vn/the-pan-group-from-circular-economy-to-sustainable-development-2797.htm>, July 2020.

- At Sao Ta, shrimp shells and heads are acquired by partners to produce chitin and chitosan which are important materials in agriculture, food, and healthcare industry.
- Lafooco's cashew nut shell has been reused as a kiln fuel. It is also pressed to extract essential oils to use as fuels or film-forming gels in marine paints production and the production of other heat-resistant materials.
- 554 Nha Trang sells fish sauce by-products to partners to reuse as fertilizer.
- Vinaseed's rice by-products are reused as a kiln fuel. Rice bran is sold to food and alcohol brewing companies.
- At PAN Food and Bibica, confectionery by-products are reused for animal food. The product packaging has a smart design so that consumers can reuse it as utensils or children's toys.
- Solar power systems have been installed at factories to reduce electricity costs and CO2 emissions into the environment.

Marketing mix strategies are focused on exports to change production culture to quality versus quantity. The rationale is if the finished products meet the expectations of foreign markets, they would become competitive at home. Fluctuations in production outputs and consumption due to external shocks such as the pandemic and global supply chain disruption can be controlled by promotion planning between domestic and international markets.

We close this section with a remark that to secure a sustainable position in a global economy, national companies would not just enter unfamiliar foreign markets as small, unknown, and financially disadvantaged suppliers. The PAN Group has been able to reach out to its foreign partners in a variety of ways, introducing their business units with corresponding foreign investors, international R&D experts, importers, and distributors, to create a self-sustained circular supply chain.

7 Conclusion

As if the trade war triggered by the Trump administration has not sufficiently caused chaos to the world's economy and trade, the looming COVID-19 pandemic has forced individual economies to revisit their respective position in the global supply chain. To reduce interdependence, many companies are looking to repatriate their manufacturing bases or diversify their global manufacturing to more locations beyond China. This strategic move risks being costly and does not necessarily warrant an improvement to the current arrangement. In the short term, replacing the Chinese well-oiled and cost-effective production system is a challenge. In addition, the decades-long supply chain with China relies on a complex modus operandi involving complex air, land, and sea transportation networks, a complex web of financial and trading institutions, and other logistical issues. We argue that attempting to just relocate the Chinese manufacturing system to other neighboring economies would not be enough to capitalize on the new global supply chain.

We contend that an all-new supply chain system driven by the CE principles would enable the current global structure of supply and demand, from a quasi-linear one-way supply chain arrangement to a honeycomb-like web of circular structure that takes into consideration the national and regional geo-political realities. We conducted a case study of an original agricultural group to explore and propose a conceptual framework for emerging economies to integrate the CE concept and develop a resilient and self-reliant supply chain that minimizes the over-dependence on any trade partners and ensures sustainable development. In just a few years, the PAN Group has acquired an extraordinary comparative advantage. Many of its business units have been able to expand to the global market thanks to its CE-inspired credible value chain traceability from inputs to end-use.

A known limitation of a case study is the issue of generalizability. Can the rest of the country duplicate what the PAN Group has successfully done? A typical view from a case study researcher is that it is the reader, and not him/her, to determine what can be learned and applied to his/her context (Stake, 2005). The PAN Group possesses a young cadre of highly-educated leaders with international experience and networking. It also has strong financial backing from solid local and international financial institutions. Success begets success. PAN Group's CE-inspired model has caught the attention and interest of the highest government-level offices. It remains to be seen how the PAN group will change the entire agricultural sector. It would also be of interest to see how other traditional sectors, e.g., the obsolete manufacturing industry, react to PAN's successful strategy. In any case, we believe that our proposed CE concept would allow an economy such as Vietnam to move forward, and eventually be able to join the league of advanced economies in Asia.

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Integration of Internal Audit and Sustainability Functions: A Business Model Suggestion



Çağla Demir Pali 

Abstract Sustainable Development Goals, introduced by the United Nations, guide governments and companies in the field of sustainability and draw attention to priority issues. Within the scope of this study, a business model has been developed to integrate internal audit and sustainability functions in order to achieve the goals of Responsible Consumption, and Production, Climate Action, Industry, Innovation, and Infrastructure. The processes regarding the purchase and use of raw materials have been examined, suggestions have been developed to solve the identified problems, and a business model was developed. This business model put into practice in an international textile company operating, and it is aimed that this developed model will guide companies operating in different sectors to develop smart strategies on their sustainability journeys.

1 Introduction

Internal audit has the purpose of improving and adding value to the organizations' operations, as well as evaluating and, if necessary, improving the effectiveness of risk management, control, and governance processes. The changing nature of the business and the demands of the stakeholders are reshaping the internal audit. By preserving the independence of the business audit function, efficient use of internal resources is encouraged by working in cooperation with other departments. Sustainability efforts are one of the areas that internal auditors can benefit to and benefit from by communicating and interacting with other departments.

Especially in recent years, the importance attached to sustainability by companies has increased. Establishing sustainability departments, implementing and adopting sustainability practices within the companies, and efforts to achieve the planned results have been one of the main focuses of the companies.

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Issues such as the effective use of resources and the prevention of waste, which are among the fields of sustainability, are also among the working fields of the internal audit departments. As a result of the internal audit and sustainability departments working together, benefits such as bringing together different areas of expertise, preventing overlapping and duplication of tasks from being done by more than one department, and improving interdepartmental communication can be achieved.

This study aims to integrate the internal audit department's engagement with the sustainability department's work plan on inventory purchases. The study is focused on dyed fabric inventories to determine the share of idle dyed fabric in total purchasing in terms of quantity, investigate the reasons, and analyze the effects of those extra purchases on Sustainable Development Goals ("SDGs") such as Responsible Consumption and Production, Climate Action and Industry, Innovation and Infrastructure perceptions and propose a business model. This model, which offers a way to reduce the efforts of companies to fulfill the requirements of country-based and international regulations, is aimed to support international business practices and patterns to develop smart strategies.

2 Literature Review

2.1 Sustainability and Sustainable Development Goals

In the United Nations ("UN") Brundtland Commission report (United Nations, 1987) (also known as "Our Common Future: Report of the World Commission on Environment and Development") the major objective of development is stated as the satisfaction of human needs and aspirations. In the same report, sustainability is defined as "*meeting the needs of the present without compromising the ability of future generations to meet their own needs.*" Since then, countries have been collaborating their efforts on the subject and focusing on it in three main areas: environment, society, and governance ("ESG").

International Finance Corporation ("IFC") (2021) defines ESG as factors considered by investors in decisions related to investments and by companies in managing day-to-day operations. The environment includes how a company positions itself in protecting the environment, its activities on carbon emissions, water, and waste management, raw material procurement processes, and climate change (Institute of Internal Auditors, 2021, p. 5). Those all have actual or potential effects on the physical and natural environment (IFC, 2021, p. 13). Social, on the other hand, covers how businesses manage their relationships with their staff, customers, and other parties in the business environment. Risks related to corporate social responsibility, data security, security, and health and business relations fall under this topic. Governance encompasses areas such as leadership, internal controls, ethics, intellectual capital, and stakeholder protection (Institute of Internal Auditors, 2021, p. 5).

Since 1992, countries and the UN, including the UN Department of Economic and Social Affairs, work on building a global partnership for sustainable development. In September 2015 at the UN Sustainable Development Summit in New York “Transforming Our World: The 2030 Agenda for Sustainable Development” was adopted which contains 17 Sustainable Development Goals. Those goals are to invite all developed and developing countries to action to work on prosperity and peace for people and the planet. Countries are called to establish strategies to end poverty and other deprivations, improvements in health, education, and economic growth, and reductions in inequality. Preservation of oceans and forests, and climate change are the other main focuses of the goals (UN, [n.d.-a](#)).

Policy changes, incentives, and regulations are needed at the country level for global improvement. But it is possible to make these improvements at the company level with company-specific developments. Companies can and should work to achieve these goals by applying proper internal regulations and controls without waiting for governments to make them. For this purpose, studies and analyses should be made in the field of environment, society, and governance, and developments should be supported by new business models that will emerge.

This chapter proposes a new business model to reach the Responsible Consumption and Production goal and considering that all sustainable development goals interact with each other, it is also aimed to make progress on Climate Action and Industry, Innovation, and Infrastructure goals. In this context, Responsible Consumption and Production, Climate Action and Industry, Innovation and Infrastructure goals are briefly explained below.

2.1.1 Responsible Consumption and Production

“Sustainable consumption and production is about doing more and better with less.” Although the main goal is preventing the degradation of the environment for economic growth, contributions can be done to reduce the poverty and encourage a transition toward low-carbon and green economies. Increasing resource efficiency and encouraging sustainable lifestyles are some of the ways stated to reach the goal (UN, [n.d.-b](#)).

Implementation of a 10-year framework program to reach the goal is one of the targets determined by the UN. Also, other targets determined to be reached by 2030 are the achievement of sustainable management and efficient use of natural sources; reducing the food losses on production, supply chain, and post-harvest; reducing the waste generation through prevention, reduction, recycling, and reuse; and educating people on sustainable development and encourage them to change their lifestyles to be in harmony with nature. Revising the national priorities and policies to promote sustainable public procurement practices; encouraging companies to adapt sustainable practices and integrate them into their reporting cycle; supporting the developing countries to improve their technical and technological capacity to have more sustainable patterns of consumption and production; promoting sustainable tourism to create jobs and raise local culture and products; reducing the release of chemicals

to atmosphere, water, and soil to minimize their negative effects; and reducing the use of fossil-fuel subsidies are targeted. To reach those targets, developed countries are encouraged to take the lead (UN, n.d.-b).

2.1.2 Climate Action

This goal is about reducing the effects of climate-related natural disasters and hazards, improving education, and enhancing awareness on climate change. It has been targeted to make improvements in education, awareness-raising, and personal and organizational capacity on early warning, impact reduction, climate change adaptation, and mitigation.

It has been aimed to integrate measures for climate change by national policies, strategies, and plans; increase the mitigation, adaptation, impact reduction, and early warning capacity of the institutions and humans; and for the least developed countries and small island developing states promoting mechanisms for raising capacity to set climate change-related plans and management tools effectively. The financial target of the goal is the implementation of the Green Climate Fund to address the needs of developing countries (UN, n.d.-c).

In a study published by Deloitte (2013) it is stated that to maximize a company's value, it is important to pursue stakeholder value and work to keep the environment healthy. From this perspective, climate action is one of the goals that is closely related to all other goals and has a significant impact on all of them.

2.1.3 Industries, Innovation, and Infrastructure

This goal is basically about improvements in economic welfare, industrial development, technology, and science. By considering national circumstances, promoting sustainable and inclusive industrialization, upgrading infrastructure, and strengthening industries to make them more sustainable are some of the targets of the goal. Increasing efficiency on resource use and adopting clean and environment-friendly technologies and industrial processes are the ways determined to reach these targets (UN, n.d.-d).

Providing affordable loans to small-scale entities, especially in developing countries, and integrating them into value chains and markets are another target of the goal. To support economic development, it is aimed to develop reliable, resilient, and sustainable infrastructure. It is also targeted to support scientific research to upgrade the technological capabilities of industries by encouraging innovation and increasing the number of research and development workers; and domestic technology development, innovation, and research by policies in developing countries. To support the least developed countries, sustainable and resilient infrastructure development and increase their access to communication technologies, information, and the Internet are aimed (UN, n.d.-d).

2.2 *Internal Audit*

Since the introduction of formal record-keeping systems, there have been concerns about the recording of receipts and disbursements and collecting taxes. Traces of auditing can go back to controls for checks and counterchecks in public finance systems in Babylonia, Greece, the Roman Empire, and the City States of Italy. Needs for controls arose from the governments' worries about the possibility of booking errors by incompetent officials and attempts of fraud when the opportunity arose (Ramamoorti, 2003, p. 3). Auditing professionals existed in ancient China and Egypt as supervisors of the accounts of the Chinese Emperor and the Egyptian Pharaoh (Hayes, 2005, p. 2). Verification of receipts of merchants for grain brought to the market is viewed as the root of internal auditing by historians (The Institute of Internal Auditors, n.d.-a).

The need for independent verification to reduce asset misappropriation, fraud, and record-keeping errors is some of the main reasons for the demand for auditing. Since the complexity, size, and scope of business functions have grown, there emerged the need to verify accounting information to make it a better decision-making tool. Also, the distance between the business owners and reporting parties has made it a necessity to create an objective and independent party inside the organizations to be the "eyes and ears" of the management (Ramamoorti, 2003, p. 2–4). With the expansion of corporate business in the nineteenth and twentieth centuries, the importance of the internal audit has attracted attention and grew to meet the expectations of the related parties. The founding of The Institute of Internal Auditors (IIA) (n.d.-a) is seen by many as the genesis of internal audit.

In 1941, IIA (n.d.-a) is established as the "*profession's global voice, recognized authority, acknowledged leader, chief advocate, and principal educator.*" Being under an inclusive roof in this way has increased the awareness on internal audit and the prestige of the profession. Also, the enhancement of awareness and prestige has supported its spread.

The IIA's International Professional Practices Framework (IPPF) (n.d.-b) defined the internal audit as "*an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.*"

Responsibilities of the auditors are defined by the IIA (n.d.-a) and can be summarized in three categories:

- As an observer: Analyzing opportunities, evaluating emerging technologies, and examining global issues.
- As an advisor: Assessing risks and controls to assure that necessary controls are in place to mitigate the significant risks and assess ethics, quality, and efficiency. Since auditors can evaluate the companies from a broad perspective, they can provide data on strengthening internal controls and organizational governance.

- As an information center: Communicating information and results with clarity and accuracy to the intended users and being a valuable source for the management and boards of directors on accomplishing goals and objectives of the company.

Since the internal auditors possess knowledge about the activities of companies (especially financial issues) and are authorized and experienced in accessing and analyzing data, they can carry out effective studies in areas such as sustainability.

3 Role of Internal Auditors in Sustainability Practices

As explained earlier, one of the purposes of an internal audit is to add value to the company and to make its activities more effective. Company value can be measured and analyzed in multiple ways, but the stakeholder perspective is perhaps the most important. Because the loss of value of companies in the eyes of their stakeholders can have an impact on environment, society, and governance areas and may end the life of the business, it is vital for companies to find funds for the continuation of their activities, to maintain relations with customers and employees, and to make the right decisions to use existing resources most effectively. The importance of the disclosures to inform the shareholders in the best way is increasing day by day and regulations are being made by various institutions in this regard. In line with the demands and needs of information users in ESG areas, standard setters in the field of accounting also have taken action and started to work to guide the reporting and disclosure of financial and non-financial metrics. First of all, the International Sustainability Standards Board (ISSB) was established at the end of 2021 to meet the needs of information users for reliable, quality, comparable, and transparent information. In 2021, the Value Reporting Foundation (VRF) is founded as a non-profit global organization for “*a comprehensive suite of resources designed to help businesses and investors develop a shared understanding of enterprise value—how it is created, preserved or eroded over time*” (The International Financial Reporting Standards Foundation, n.d.). On July 1, 2022, the consolidation of VRF to IFRS Foundation started.

According to KPMG’s report (2022), 96% of G250¹ companies report on sustainability topics and 71% of N100² companies identify material ESG topics. Due to the increase in interest in this field and the regulations, companies have ample work to do, and teams will need to show the best performance against possible errors and deficiencies. As the assurance providing and advising body, internal audit can play an important role in companies’ ESG reporting and sustainability matters.

Internal audit departments also play an active role in matters such as the ESG strategies, risk appetites, and focal points of the companies in the field of ESG. Risk

¹The G250 refers to the largest 250 companies by revenue based on the 2021 Fortune 500 ranking.

²The N100 refers to a sample of the top 100 companies in 58 countries by revenue.

management, which is one of the working areas of internal auditors, also covers the field of ESG and requires auditors to take risks associated with ESG into account (McClure & Stone, 2022).

As in all other risk management activities, issues such as where the data comes from, whom it belongs to, who approves it, to whom it is reported, what controls are in place, and the approval process before its publication are among the questions that fall within the scope of the work of auditors. As the internal audit department seeks answers to these questions, it examines whether the necessary controls are in place (McClure & Stone, 2022).

In Gartner's study (2022) "2023 Audit Plan Hot Spots" ESG is determined as one of the risk areas. ESG was on the list in the previous year due to an increase in regulatory action and an increase in investment commitment to ESG matters. The reason for 2023 is the necessity for the companies to establish meaningful policies to follow all the regulations and avoid greenwashing accusations because of the increased stakeholder scrutiny.

4 Case Study

4.1 Company Profile

TYH Textile ("TYH" or "Company") is an international garment producer and exporter since 2000 and has more than 5000 employees. The company's production capacity is over 20 million pieces per year and has 12 facilities in Turkey (including factories and warehouses) and two sales offices abroad (in the USA and Netherlands). The company has a leading role in the industry and guides other companies in improving their business practices.

The company always maintains a large amount of inventory in its warehouses to avoid any disruptions in its production activities. Customized purchases are made for each order as they differ in detail, but the inventory items in the warehouses of the company are generally raw yarn, dyed yarn, raw fabric, dyed fabric, and accessories (button, label, zipper, rubber, bead, etc.).

Inventory movement in the company's facilities changes with the inventory type. Raw yarn, dyed yarn, raw fabric, or dyed fabric are purchased based on the qualifications required. If it is the raw yarn that is purchased, it is sent to the dyehouse for dyeing and then to the knitter for knitting. If the dyed yarn is purchased, it is sent directly to the knitter. In some cases, instead of raw or dyed yarn, the raw fabric is sent to the dyehouse for the dyeing process. The last and easy option is buying dyed fabric as ready-to-use raw material. As can be seen, a high number of processes, transfers, and chemicals are required to obtain dyed fabric, and therefore, a very important environmental impact arises with every purchase.

Production starts with sending the dyed fabric to the facility for cutting and ends with sewing and packaging. The company has enough machinery and equipment for cutting, sewing, and packaging in some locations but in some cases because of

backlogs or other reasons, all these steps are completed in different locations owned by the company or outsourcing companies' facilities.

The company has a wide customer portfolio and exports to many countries in Europe, mainly to Germany. Customers differ in many aspects such as ordering periods and production method preferences. But in general, it has close and trusting relationships with its customers that have been going on for many years.

Customers differ based on ordering periods. The first group of customers placed their orders 1 year in advance so the company can plan the purchases and production earlier. It has advantages for the company since raw materials can be bought at lower prices (since there is enough time to bargain and consider alternative suppliers with better prices) and there is enough time to test them properly to obtain the best quality raw materials (testing the quality and color of the fabric is a time-consuming process). Although purchasing raw materials in high volumes when quality fabrics are bought at reasonable prices is advantageous financially, it can also be a disadvantage because of the high storage costs and difficulties keeping the inventories in good condition.

Another similar customer group prefers repeated orders that have the same qualifications. For that type of orders, inventories are bought in advance too for better prices since there is time for bargaining. Last-minute purchases can be costly because of the additional costs charged for changes in suppliers' production plans. The third group of customers makes their orders without a clear time pattern. Lack of time to bargain on price and quality in the purchase of raw materials is a disadvantage for this group, but it is also an advantage that stocks do not need to be kept in warehouses for a long time. As it can be seen, since the company serves different customer groups, there are limitations on both managing the cost of storage and keeping the inventory in good shape, as well as the ability to purchase affordable and qualified raw materials when they are needed for production.

Customers can also be grouped for their preferences of production facilities since the company does not only make in-house production but also work with outsourcing companies in different stages of the production process. For some customers, all production processes (cutting, sewing, packaging, etc.) are completed in-house, while for others production processes are outsourced to subcontractors that are inspected and approved by the customers. Therefore, the way of doing business changes based on the customer group.

In-house production has some cost and planning advantages. In that method, all production processes are under the control of the company. But working with an outsourcing company has its advantages, such as in busy season company runs out of capacity and it can be covered with an outsourcer; working on featured pieces like special fabrics and using special sewing technics can cause extra costs and risks (ruining the raw materials for not using an appropriate method or making errors that can cause errors in the production process) if the job is done in-house (specialized outsource companies can do better jobs); transportation of the raw materials is costly and causes high carbon emissions (since the company's some production facilities are far from each other, it is more beneficial to work with an outsourcing company closer to the facilities).

There are also disadvantages of this model since it is not possible to control the amount of waste in cutting, sewing, and packaging if this work is done by a subcontractor. One of the main problems with the issue is the difference between the measurement units of the sent and received inventory. Fabrics sent to subcontractors for cutting are measured by kilograms, but they come back in pieces. Thus, it is hard to compare the inventory sent and received back to control the waste amount and control the efficiency to reduce waste.

Another disadvantage is the coordination difficulties in transfer operations between the company's facilities and subcontractors in different locations. Extra costs can occur, and the company takes other risks in transportation. Also, since a problem in a step directly affects the next one, when a problem occurs in the transportation process or a subcontractor's production facilities, it causes delays in production and the delivery of the order is postponed to a later time than the planned term.

If the company works with subcontractors, it is necessary to keep the inventory in their warehouses to be ready for production. For this reason, inventory storage-related risks arise from outside parties and accordingly a strict follow-up is required to keep the inventory under control and in good condition.

4.2 Company's Sustainability Perspective

A sustainability planning team consisting of 10 members from various departments was established in 2021. The company's procedures were analyzed and documented under the leadership of an experienced advisor. Metrics to measure the sustainability performance of the company are identified and announced to the related departments to improve their procedures. Presentations are made to the management to show the current position, plans, potential effects of the plans, and expected costs for improvements related to those plans.

The impact analysis was performed to examine the relationship between the organization and the environment, the society within which it operates, suppliers, customers, and other members of the industry. That way what is taken from the environment and society is compared with what is given and how the resources are used. After careful consideration, it is determined that the company's biggest effect is related to the industry's way of operating, how the product is made and reaches the end-users, use and disposal of materials. On the other hand, it is determined that the company has strong relationships with society as it contributes to social well-being by employing a high number of people from local communities and provides social benefits to the cities where the facilities are located.

The first stage of the sustainability planning efforts concluded in September 2021. Team members were appointed to lead the work on the topics under their responsibilities and expertise. Completed works and plans were presented to the top management and key employees in a meeting and then the field studies have started.

As of September 2022, the team was working on 10 targets (energy efficiency, net zero (for all production and operations), use of sustainable production materials, circular products/services, sustainable facilities, efficient and digitalized processes, empowerment of employees, community welfare development, industrial leadership, zero waste) under 8 aspects (energy, materials and water, facilities, processes, employees, society, industry, waste, and products and services). To measure the sustainability performance of the company, 66 metrics are identified as performance criteria. These metrics were developed in-house as a result of the review and research conducted by the sustainability team under the leadership of the advisor. A sustainability report will be prepared for the year 2022.

4.3 Company's Internal Audit Department

The company has an internal audit department since 2012. In the department, an internal audit manager and an auditor are employed who are also members of the sustainability team, and both have a financial background. Organizing and doing inventory counts, analyzing the efficiency of operations, evaluating internal controls, auditing accounting records, auditing export and import transactions, analyzing production efficiency and error reports in production, supervising official declarations, and analysis of procedures are some main duties of the department. Also, ad-hoc reports and extra audit work depend on the requests from the board.

Inventory and inventory-related activities are one of the main areas of focus for the team, as inventories are very important for the continuation of production, as they are high in volume and value, and have tracking and controlling challenges. For sustainability purposes, the team especially has focused on control of inventory purchases (purchase price and extra purchases, etc.), inventory counts (ensuring the inventory lists are prepared completely and correctly and inventory is kept in good condition), and analysis of the inventory purchases and production efficiency to make improvements to achieve waste elimination.

With the implementation of this audit work, it is aimed to make the production activities of the company (starting from the raw material supply) efficient, and it is aimed to contribute to the goal of Responsible Consumption and Production. Also, keeping the raw material purchasing processes under control and preventing unnecessary purchases and consumptions will lead to a decrease in the consumption of chemicals that are very harmful to the environment and unnecessary production that does not reach the end-users. In this way, support will be provided for the sustainability studies carried out in the company to achieve its "Climate Action" goal. In addition, the company is a role model in the industry, implementing a good practice example will also affect the way of doing business with other players in the industry, it will also serve as a tool in achieving the "Industries, Innovation and Infrastructure" goal.

4.4 Analysis of Inventory Purchases and Waste Inventory

Since the internal audit staff in the company is also members of the sustainability team, they were focused to increase the efficiency of their work by avoiding the reperformance of the same or similar jobs. Since it is one of the most important assets of the company due to its economic value and effect on future production (production processes cannot continue smoothly without ready-to-use raw materials on time) they were focused on the inventory first.

Dyed fabric stocks have been chosen and examined in this study because of their high cost and quantity, and their significant impact on the environment until they reach the dyed fabric stage (high economic and environmental effect).

As it is explained earlier, the company must keep high levels of inventory for the potential orders of specific customers but also it is important to have inventories on hand for the production in progress. Production lines must be kept working to maintain efficiency and avoid the cost of wasting time and other resources (some subcontractors rent the production line, so even if the line is empty, payment is required). But it is also risky to keep extra fabrics in the warehouses because fabrics are delicate and can be damaged easily. Another risk is that they get obsolete easily (generally fabrics are produced order specific, if an order is cancelled the fabrics purchased for that cannot be used for another. Or changes in fashion cause a change in customer preferences in color and material choices. Therefore, some fabrics cannot be used in the next year because of their color, knitting, or yarn type).

Due to its high proportion in all assets, the inventory account is an important element in terms of auditing. Keeping inventories at the optimal level and avoiding unnecessary purchases is a goal of internal audit for cost management, inventory management, and efficiency purposes. Also, the efficiency and effectiveness of purchase processes are being reviewed and internal controls are being evaluated regularly. With the additional requirements of a sustainability planning project, inventory purchases and inventory levels must be evaluated carefully to avoid waste and reach the responsible consumption and production target. In addition to this target, due to the high level of effect of climate change with the use of chemicals, cotton, and water, the company needs to find ways to manage the purchases and inventory levels efficiently. Since the company has a leading role in the industry, the company's way of doing innovative business will set an example for its competitors and may create an exponentially growing effect.

The company has different kinds of inventories such as raw materials (raw yarn, dyed yarn, raw fabric, dyed fabric, accessories, and production supplies), work-in-progress inventory (cut fabric), and finished goods (ready-to-sale apparel). Based on previous experience, it is known that the main areas where most waste occurs are unnecessary inventory purchases and erroneous production. Since the analysis of inventory purchases is already in the yearly audit plan it is decided to focus on that area in particular. As the most expensive raw material, dyed fabric inventory was chosen to work on.

The average purchase price for dyed fabric is 7.46 € per kg and 6.77 € per kg for 2021 and 2020, respectively. Because of these high prices, unnecessary fabrics that are purchased have a significant negative effect on the company's financial statements.

The usage of the high amount of water in the production of cotton and other processes, the use of chemicals in the production of dyed fabrics, and carbon emission related to transportation affect the environment in a negative way which also does not comply with the plans of the company on achieving the targets on Responsible Consumption and Production, Climate Action and Industry, Innovation and Infrastructure.

As the first step of the study, all dyed fabric purchases that were accepted to the warehouses were calculated. Most purchased dyed fabric inventory is measured in kilograms and that inventory purchases amount to 5,897,543 kg for the year 2021 and 3,145,652 kg for the year 2020 (arrival date is used for categorization since it can take more than 1 month for dyed fabrics to reach the warehouses after the order is given). There were also dyed fabric purchases measured in meters, 44,552 m for the year 2021 and 30,017 m for the year 2020. 1 m of dyed fabric weighs approximately 250 g.

The inventory list of the dyed fabric and purchase list are gathered on 29 September 2022 (for 2021 and 2020) and are compared based on the batch number (which is a unique number provided by suppliers). After the comparison, it is found that 4.59% of the 5,897,543 kg (270,470 kg) for 2021 and 2.64% of 3,145,652 kg (82,893 kg) for 2020 were still in the inventory. Also, 4.44% of the 44,552 meters (1978 meters) for 2021 and 4.03% of 30,017 meters (1210 m) for 2020 were still in the inventory.

Under the company policy, dyed fabrics that are not foreseen to be used in the future are sold to various companies. That is why these sales are also added to the analysis as 136,523 kg for 2021 and 84,370 kg for 2020.

In total (total of remaining and sold dyed fabrics), 6.90% of all purchases for 2021 and 5.32% of all purchases for 2020 are waste dyed fabrics. Also, 690 meters of the 44,552 m (1.55%) for 2021 and 240 m of 30,017 m (0.80%) for 2020 are sold because they cannot be used in production. Please see Table 1 for the results.

Reasons for the waste of dyed fabrics are determined after the inquiries and reviews as follows:

1. Minimum order requirements of suppliers—Most of the suppliers do not accept orders of less than 30 kg. Because of that, extra fabrics are ordered for sample production, and they remain in inventory.
2. Ignorance and incompetency of purchasing staff—Ordering the same dyed fabric that is already in the warehouse without checking the stocks. Since it will take time to check the suitability of the raw fabrics in the warehouses, it has been determined that purchasing personnel take the easy way out and place new orders. In addition, employees, especially new hires, do not pay enough attention because they are not informed about the amount of unnecessary stock left in the warehouses and the results (economical and environmental) of these practices.

Table 1 Waste inventory analysis in kilograms and meters

| | 2021 | 2020 |
|---|-----------|-----------|
| Purchases (kilogram) | 5,897,543 | 3,145,652 |
| Remaining dyed fabrics (kilogram) | 270,470 | 82,893 |
| Share of remaining dyed fabrics in total purchases | 4.59% | 2.64% |
| Sold dyed fabrics (kilogram) | 136,523 | 84,370 |
| Share of sold dyed fabrics in total purchases | 2.31% | 2.68% |
| Total of remaining and sold dyed fabrics (kilogram) | 406,993 | 167,263 |
| Share of remaining dyed fabrics in total purchases | 6.90% | 5.32% |
| Purchases (meter) | 44,552 | 30,017 |
| Remaining dyed fabrics (meter) | 1978 | 1210 |
| Share of remaining dyed fabrics in total purchases | 4.44% | 4.03% |
| Sold dyed fabrics (meter) | 690 | 240 |
| Share of sold dyed fabrics in total purchases | 1.55% | 0.80% |
| Total of remaining and sold dyed fabrics (meter) | 2668 | 1450 |
| Share of remaining dyed fabrics in total purchases | 5.99% | 4.83% |

Inventory details are recorded in the software which is used by all departments. Because of the inaccurate inventory details (typos, missing information, use of different wording, etc.), new fabrics are ordered by purchasing department even if that particular inventory exists in warehouses (they use keywords or fabric qualifications for search). The production department is misled by the same inaccurate inventory details either. In the production phase when there is not enough raw material in the production site, it is checked whether there is any raw material that can be used. If the records show that there is no appropriate inventory in warehouses extra fabrics are ordered. It causes two problems; the first one is the unnecessary purchase of inventory. The second one is the minimum order requirements of suppliers. Even when just 10 kg is needed, more inventories should be ordered for the supplier to meet the order. Because of these unnecessary purchases extra dyed fabric inventory is doubled.

- Retention and accumulation of safety inventory—When an order is received from a customer, the amount of fabric required for production is calculated and purchases are made more than the need determined. The primary reason for these extra purchases is to compensate for possible production flaws that may arise in production. The second reason is that in production planning, production plans are made more than the number of orders. The customers accept up to 5% over their order quantity when the finished goods are delivered before the due date. Manufacturing companies want to use that option and manufacture 5% more than the order quantity anticipating that they deliver the order before the due date. That’s why they order raw materials for that extra 5% production. It is determined that some of these extra purchases (purchased for possible over-loading quantities) are returned from production or not even sent to production facilities and remained in the warehouses.

4. Order cancellations—Some orders are cancelled by the customers. In that case, if the raw materials are purchased beforehand, they remain in the inventory. The cost of that inventory is generally invoiced to the customers and that way financial loss is covered. But the fabric is already produced, and resources are already consumed, and because of that it is not possible to cover the environmental effects.

After identifying the reasons for inefficiencies in the purchasing phase, inquiries are made, and the financial and environmental effects of these actions are discussed. The results of those inefficiencies are summarized below:

1. A high amount of inactive inventory remains in the warehouses—In addition to the raw materials required for production (new and necessary), the company has a very high amount of inventory in warehouses because of the accumulation of remaining inventory as a result of the unnecessary purchases.

It causes two main problems. The first one is related to warehouse conditions. It is very important to keep fabrics in good condition. Humidity levels and temperature need to be under control and fabrics should not be stored on top of each other for long periods. In that case, fabrics lose their form and visible defects occur. Because of that, accumulated unused inventories in the warehouses damage other usable fabrics. The second problem is related to the limited storage area. Because of that problem, some inventories are stored in external service providers, and it causes new problems such as additional risks, control challenges, and difficulty of access.

2. Storage expenses—As it is mentioned before since the company's storage place is limited, additional space needs to be rented to keep the fabrics safe. If unused inventories do not have to be kept in warehouses, the need to rent additional space for storage may be reduced or even eliminated.
3. Financial losses—Dyed fabric is a significant cost element of production. As it is mentioned before average purchase price for dyed fabric is 7.46 € per kg for the year 2021 and 6.77 € per kg for the year 2020. The average cost of remaining inventory and inventory sold with loss (as it is seen in the table, unused dyed fabrics are sold at low prices, 0.76 € per kg for 2021, 0.75 € per kg for 2020) is calculated and presented in Table 2 as follows.

Since the company operates in Turkey, the remaining fabrics are sold in Turkish Lira (TL). The average selling price is 7 TL in 2021 and 6 TL in 2020 but it seems to have decreased due to the increase in the euro/TL currency exchange rate.

4. Environmental losses—Unused dyed fabrics can be sold at a lower price than the purchase cost, and in this way, some of the financial loss can be covered. However, it is not possible to monitor how the sold fabrics are processed afterward, and their environmental impact cannot be measured. Even if the effect cannot be measured, it is known that since it will not be possible to recycle dyed fabrics with zero loss, irreversible damage is caused to nature due to wasted raw materials. In addition, since it is necessary to process it for recycling,

Table 2 Cost of waste inventory for 2021 and 2020

| | 2021 | 2020 |
|---|------------|------------|
| Average purchase price per kg | €7.46 | €6.77 |
| Remaining inventory (kilogram) | 270,470 | 82,893 |
| Average total cost of remaining inventory | €2,017,706 | €561,186 |
| Sold inventory (kilogram) | 136,523 | 84,370 |
| Average total cost of sold inventory | €1,018,462 | €571,185 |
| Average selling price of unused inventory | €0.67 | €0.75 |
| Average sales revenue of unused inventory | €91,276 | €63,199 |
| Loss of unused dyed fabric sales | €927,185 | €507,986 |
| Total financial loss | €2,944,892 | €1,069,172 |

environmental effects will also arise from recycling processes. Therefore, all unnecessary purchases have exponentially increased environmental impacts.

5. Unnecessary transportation costs and carbon emissions—Dyed fabric production is a long, chemical-consuming, and complex process. The yarns to be used are mostly imported from abroad and then dyeing and knitting require transportation because they go through various stages (dyehouse, knitter) in external parties. The transportation costs and the resulting carbon emissions for dyed fabrics that are produced but not turned into a finished good are completely unnecessary and cause significant financial and environmental damage.
6. Control and follow-up problems—Due to the complex processes described earlier, it is very difficult to keep track of the dyed fabric inventory (the whole process from raw yarn purchase to dyed fabric) under control. For this reason, as the inventory amount increases, more control and follow-up difficulties will arise, and potential errors will occur. Unnecessary dyed fabric purchases cause problems in this area as well, and some of the stock follow-up efforts are spent on the follow-up of fabrics that will not benefit the company. For example, the internal audit department performs systematic and sometimes random inventory counts at the end of each quarter. During these counts, the inventory lists of the warehouses are gathered, and the counts are completed by choosing random samples. No distinction is made whether the selected inventories are necessary or unnecessary for production, and all the inventory in the warehouses is audited. When problems are encountered, time and effort are spent to solve them. Due to the unnecessary stocks in the warehouses, there are unnecessary increases in audit work. By keeping stocks under control and preventing unnecessary stock accumulation, it is possible to prevent labor inefficiency due to auditing and counting unused stocks.

As can be seen in the explanations above, the disruptions and problems experienced in the purchasing process have a chain effect. A significant amount of financial and environmental damage occurs because of both unnecessary purchases and storing of unusable raw materials.

As a result of examining the causes and effects, it was decided to change the business model of the company. Efforts have been made to ensure that the new

business model is innovative and exemplary in the industry, compatible with responsible consumption and production goals, and planned in a way that will limit the negative impact of climate change (since it is not possible to eliminate).

Analyses are made and changes in the company procedures are advised.

4.5 Proposed Business Model

The internal audit department advised some changes in the company procedures to reach the goals that are set by the sustainability team. First, a “to-do list” that sets the basic actions to eliminate waste is prepared and then a new approach is presented to use the remaining inventory efficiently and improve the operations to reach a more sustainable way of doing business. Those actions are listed below:

- (a) All purchase department personnel are informed about the results of their not careful enough actions. Additional controls are asked to be done in purchase order requests, such as a double check of the records (qualifications of the dyed fabrics for color, knitting pattern, yarn type, and certification) and checking the inventory on hand details not to order fabrics that are already in the warehouses.
- (b) Recording errors, if detected, will be reported to the department head and recurring errors will be used for employee performance measurements.
- (c) Errors will be avoided by using machine learning. For example, a warning appears on the screen in case of typos while entering color information or if there are entries outside the standard product specifications.
- (d) Sales personnel are asked to be more proactive, especially in the production of samples. For example, if a customer asks for a t-shirt sample using 30/1 combed 30% cotton, 70% polyester, and fuchsia color fabric, the sales personnel should check the stock details to see if there is any fabric close to these requirements. If there is, then he/she should offer new options such as 30/1 combed 30% cotton, 70% polyester, and *pink* color fabric; or 40/1 combed 30% cotton, 70% polyester, and fuchsia color fabric. By offering different types of fabrics with different colors and yarn counts that are already in the inventory, unnecessary purchases can be eliminated and help reduce the waste of that inventory. Also, as mentioned before, minimum order requirements of suppliers cause unnecessary purchases for sample production (ordering 30 kg of fabric to use only 4 kg of the batch), by this practice these purchases can be eliminated.
- (e) At the end of each month, an automated inventory list that includes non-moving inventories for the last 6 months will be sent to the sales and purchase departments. By that, they will be aware of those inventories and keep them in mind for future uses.
- (f) Inventory lists will be sent to the design department so they can be aware of the inventory on hand and use that inventory for the new designs and sample production. Also, they can lead the design preferences of the customers to use the fabrics that are on hand in high volume (In some cases, orders are cancelled

by the clients for internal reasons or fabric qualifications. If it is a fault of the customer, it is compensated. But a high volume of fabrics remained in the inventory).

- (g) An automated inventory list will be sent to all employees in the purchasing department to inform them about the remaining inventory purchased by them. A performance report will be prepared for each employee that shows the percentage of remaining inventory in comparison with the total purchases and if it is higher than 5%, the results will also be sent to the department head.
- (h) A manual will be prepared that shows the steps of inventory purchase transactions and additional precautions will be explained. By that, it is planned to enhance the awareness of sustainability and waste management. In addition, it is aimed to prevent possible mistakes that new employees can make.
- (i) A system will be established to warn the purchasing personnel who have a large amount of ready-to-use inventory in the warehouses if they make new purchase orders. Additional approval of the purchasing manager will be required for over-limit (These limits will be changed with the customer group they work with. Because customers have different patterns for orders, some customers give orders in advance, so high-volume purchases are made. Higher limits will be set for these kinds of employees.) purchase requests. In this way, it is aimed that purchasing personnel will be aware of the problem of high stock accumulation in warehouses and be more careful.
- (j) The company's design department prepares seasonal or on-demand collections for customers. As part of the new business model, designs will be made with a focus on sustainability and using existing inventories (especially high-volume dyed fabrics left over from cancelled orders). Thus, it will be possible to use the inventories left in the warehouses effectively and to create awareness in the field of sustainability, and practices that set an example for the competitors in the sector and increase the awareness of the employees.
- (k) Investigations will be conducted to provide information as to what happens to the dyed fabrics sold later, and how and for what purposes buyers purchase them. For example, information such as whether the sold fabrics are recycled, if recycled, how much additional carbon and water footprint resulting from this process occurred, and how it is used if it is not recycled. According to the results of these observations, decisions will be taken to minimize the environmental impact. Customers who recycle their purchased materials in the most efficient (environmentally friendly) way or use them in a less damaging way will be selected.
- (l) A project has been started by the research and development department of the company to analyze the reasons and effects of the inefficiencies mentioned above. After the analysis, a software will be purchased to monitor the newly applied practices and report the results.

5 Summary and Conclusion

Deloitte (2020) identified three strategies for sustainable transformation:

1. *Look ahead. Understand what threats and, more importantly, opportunities the pressures toward sustainability present for the future of the business.*
2. *Look inside. Consider how business operations could be reconfigured to accelerate the transformation toward greater sustainability.*
3. *Look around. Leverage the surrounding business ecosystem to create a competitive advantage.*

In this context, the first thing companies should do is to be aware of their position in terms of sustainability. In light of this information, events that will create risks or opportunities for the company in terms of sustainability should be determined. After these determinations, ways to guide business activities and accelerate the transformation should be sought. Finally, ways of gaining an advantage should be found by examining the competitors and finding ways of doing business that will provide a competitive advantage.

TYH Tekstil, which set out with the aim of being the sector leader in the field of sustainability and set its goals in economic, environmental, and social areas, took its first steps by establishing a sustainability team. As a result of the intersection of sustainability efforts and regular workloads of the internal audit employees in the team, it is aimed to reveal a more effective working model by integrating the two departments. A new business model has been developed and shared with the management to be put into practice to minimize the financial and environmental damages of the inventory that is not used and remains in the warehouses.

As presented in Fig. 1, the reasons for the problems in this area were identified. Then, the results caused by these problems were determined and the necessary steps for the implementation of the new business model were determined.

This model can be implemented by companies operating in many industries, especially in the textile industry. Sustainability-oriented audit works that will be added to the responsibilities of the already existing internal audit departments will enable businesses to use their resources more effectively and efficiently. In addition, companies that are willing to start sustainability studies but do not know where to start can also improve their activities by applying a model like this one. Adapting this approach to the ways of doing business of different companies will contribute to making the business strategies more sustainability-oriented and making the work of the international business world more effective in the field of sustainability.

With the implementation of this business model, it will be possible to prevent the accumulation of idle inventory. This will not only prevent the financial losses incurred but also eliminate the environmental damages arising from the production and purchase of raw materials with high carbon and water footprint such as dyed fabric. For businesses operating in a sector with a significant environmental impact and damage, such as the production of textile products, taking control of unnecessary

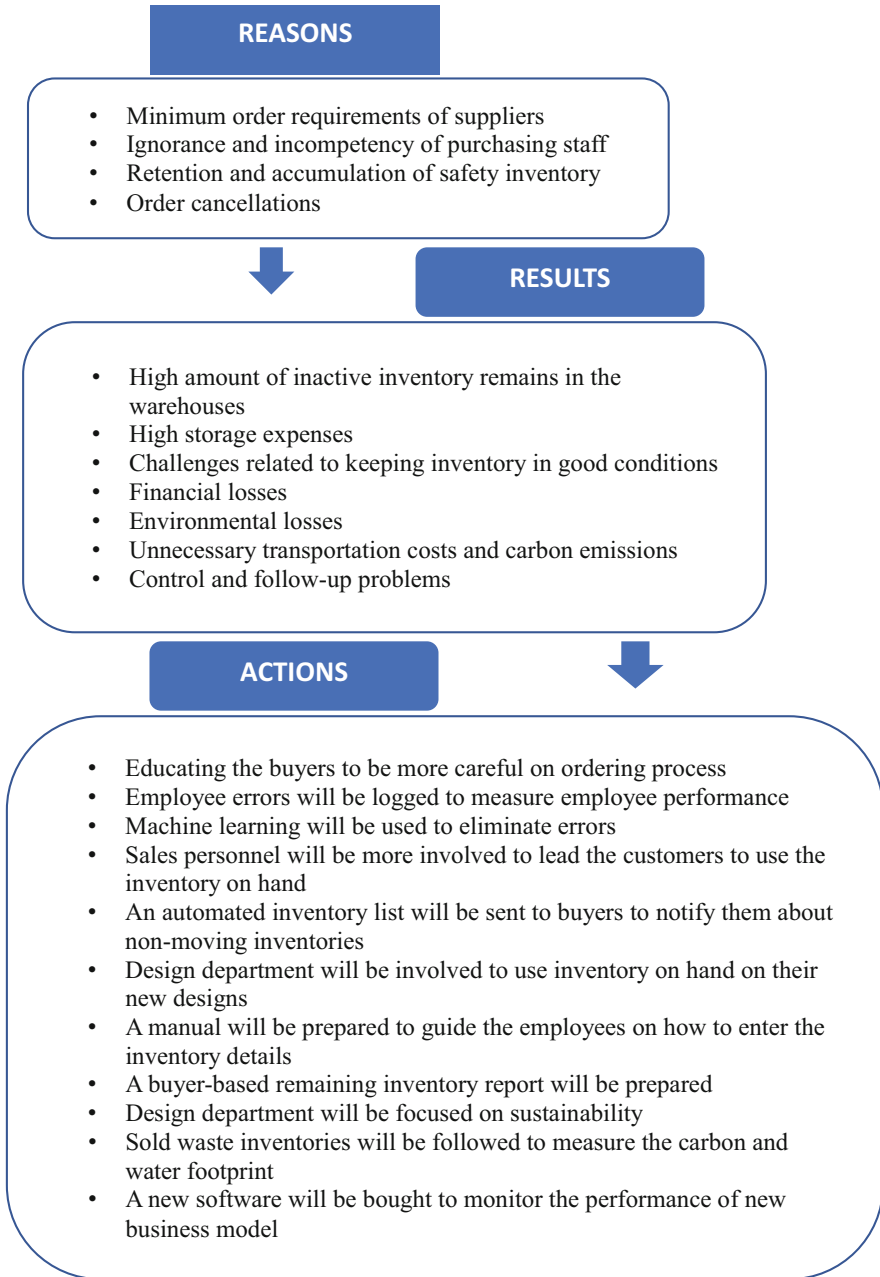


Fig. 1 Background and implementation of the business model

raw material purchases in this way is an important step in terms of “Climate Action” and “Responsible Consumption and Production” goals.

There will also be benefits such as the synergy created by the collaboration of different departments and the development of interdepartmental communication, a team spirit that spreads throughout the company, more effective work of more than one department, and more efficient work by preventing the same work from being done by different departments. It will be possible to make a greater impact if the environmental benefit (or reduction of environmental damage) and economic advantages that the business model will provide lead the competitors in the sector and become a role model. In this way, it may be possible for other players in the industry to implement similar practices and review the way they do business in the sector. The effective use of resources will provide significant benefits first within the company, and then throughout the country and the world. Such innovations are an important step toward achieving the goal of “Industries, Innovation and Infrastructure.” Such models, which are implemented in an industry with intense international activity such as textiles, will also have a significant impact on international business and can guide the development of smart strategies.

Presenting a company-implemented model, it is aimed to provide a new perspective to academic researchers and to represent an example of applicability in the field of integration of sustainability and internal audit functions.

Highlights

In this study, the dyed fabric purchasing processes of a company producing garments are analyzed. It is determined that there were significant disruptions and inefficiencies in the purchasing processes. Since those problems are the subject of both sustainability studies and the work of the internal audit department, a business model is proposed integrating the two functions. With this model, it is aimed to bring together different areas of expertise, prevent overlapping and duplication of tasks, and improve interdepartmental communication.

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Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability



Emmanuel Kusi Appiah 

Abstract Much of the literature on the implications of fake social media news focuses on political communication, marketing, and consumer research. Therefore, we still know little about the consequences of fake social media news in international business research. This article presents a normative conceptual model that articulates the underlying mechanisms on how the ramifications of fake social media news on the international legitimacy of internationalizing firms can be mitigated. Drawing on the resource-based view theoretical framework and international business literature, the model theorizes social media capability as a firm-specific advantage that can help explain the extent to which the negative implications of fake social media news could be mitigated.

1 Introduction

As human beings, we have inalienable rights that no state or government can take from us. One such right is freedom of expression, as enshrined in Article 19 of the Universal Declaration of Human Rights (United Nations, 2015). This freedom of expression exacerbated by digital technology advancement has triggered the upsurge of fake news. Studies show that fake news stories are 70% more likely to be retweeted than factual news stories (Vosoughi et al., 2017). Fake news is a form of disinformation or content pretending as legitimate to deceive the public for ideological or financial gain (Chen & Cheng, 2019; Di Domenico et al., 2021; Lazer et al., 2018). Alternatively, content may be genuine but classified as fake when shared with false contextual information to spread wrong impressions about people, brands, and corporations (Obada, 2019). Fake news consists of satirical content, news parody, photo manipulation, fabrication, advertising, and propaganda (Petratos, 2021; Tandoc et al., 2017). People have used the dissemination of fake news as a financial earning tool to generate wealth. For example, during the 2016

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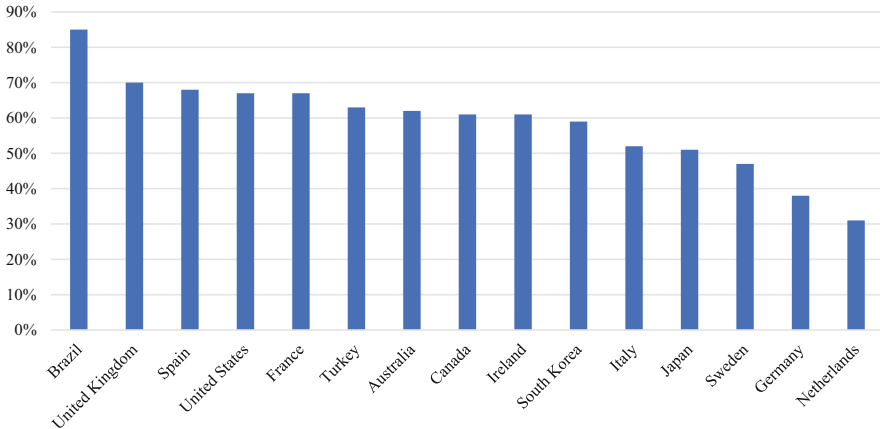


Fig. 1 Where concern about fake news on the Internet is highest

United States presidential elections, several websites in Macedonia spread fake news stories about the elections to generate money through Google AdSense advertising (Baptista & Gradim, 2020). The 2019 edition of the Reuters Institute Digital News Report notes that the publication of fake news has caused concern to nations because of its capability to influence political, economic, and social well-being. The people of Brazil were the most concerned, followed by those of the United Kingdom (UK), Spain, the United States (USA) populations, and the least concerned being those of the Netherlands (see Fig. 1). Countries are therefore putting up structures to circumvent the spread of fake news. For instance, in Finland, the government has reformed the educational system to educate students on critical thinking and information literacy (Mackintosh, 2019).

In recent years, we have recorded the dramatic spread of fake news stories through social media. In the context of both small and multinational enterprises (MNEs), there exist cases whereby individuals have used social media channels to spread false information about firms to tarnish the corporate image or change the mindset of consumers (Berthon & Pitt, 2018; Di Domenico et al., 2021). For example, an online user used the Channel23News website to publish an article on social media falsely accusing Karri Twist, a London Indian restaurant, of serving human meat (Ferraro & Chipman, 2019). Similarly, fake information was spread, accusing Coca-Cola of recalling Dasani water due to the presence of a parasite (Chen & Cheng, 2019; Ferraro & Chipman, 2019). In 2017, Starbucks was also a target of fake news on Twitter. An unknown online user made a tweet advertising “Dreamer Day,” in which the company would supposedly give out free coffee to undocumented migrants in the USA (Chen & Cheng, 2019; Obada, 2019; Vafeiadis et al., 2019). Finally, in 2019, Tesla had a similar experience when a fake video was posted online and later went viral, showing a Tesla self-driving car knocking over a robot prototype at a consumer electronics show (Hodge, 2020). At the time Tesla did not have a self-driving model.

The rise in fake news on social media has instigated research interest in academic forums. Extant studies have focused on the influence of fake news on the firm's brand (Berthon & Pitt, 2018; Chen & Cheng, 2019; Mills & Robson, 2019). Others also focused on the motivation to spread or share fake news and the outcomes of doing so (Beyens et al., 2016; Brigida & Pratt, 2017; Di Domenico et al., 2021; Colliander, 2019). With respect to the outcomes of the influence of fake news on firms, prior research shows that fake news on social media adversely or positively influence the legitimacy of brands and firms. On the one hand, fake news on social media can create confusion and doubt about knowledge about firms and brands in the minds of consumers and the public (Di Domenico et al., 2021; Van Duyn & Collier, 2018). On another hand, if firms manipulate reviews or create fake comments, it can create positive company image, increased sales, and even generate uncertainty and confusion on the part of competitors (Dishman & Nitse, 1999); however, it is an unethical way of doing business and can attract legal actions. Among internationalizing firms, fake news, trolling, and fake reviews can harm a firms' international competitiveness and relationships with international customers and other stakeholders (Saari et al., 2022).

The publication of fake news has caused concern to nations because of its capability to impair the success of firms. According to the European Communication Monitor, 22.5% of European organizations and their reputation were affected by fake news in the first half of 2018, and the main source of misleading content was social media (81.3%) (Zerfass et al., 2018). Therefore, more research is needed to address the challenges arising from fake social media news. There is a lack of studies on the implications of fake social media news in the context of internationalization, particularly how the negative effects of fake social media news on internationalizing firms can be mitigated. The usage of digital platforms such as social media has become more appealing to internationalizing firms due to the low cost and accessibility (Jean and Kim 2020). Notwithstanding the importance of digital technology to internationalizing firms, still past work is undermined by the lack of studies on the implications of fake social media news.

This paper bridges the gap by addressing the following research question: How can internationalizing firms mitigate the international legitimacy challenges caused by fake social media news? Internationalizing firms face challenges in securing legitimacy in foreign markets (Bangara et al., 2012; Wu & Zhou, 2018; Zaheer, 1995; Zimmerman & Zeitz, 2002). This therefore provides an interesting context to incorporate into the discussions on international legitimacy, fake social media news. The implications of fake news are perceived from the consumer, firm, and societal levels (Di Domenico et al., 2021). We take a narrow perspective to approach the implications of fake news from the firm level. Extant studies have focused on the societal and firm levels (Chen & Cheng, 2019; Di Domenico et al., 2021; Visentin et al., 2019).

Studies in IB show social media capability of firms expressed as—the ability to connect, engage, coordinate, and collaborate in interaction with partners in networks—enable firms to extract information from foreign markets, and mitigate challenges created by foreign market uncertainties and liabilities (Alarcón-del-Amo

et al., 2018). The current research draws on the resource-based view (Barney, 1991) to theorize on social media capability (Marchand et al., 2021) as a firm-specific advantage (FSA) explaining how the implications on international legitimacy can be mitigated. An FSA is a unique capability proprietary to a firm, and the category can include technological expertise, brand power, innovative capabilities, and corporate culture (Lee & Rugman, 2012; Rugman, 2005). In accordance with this definition, we consider social media capability as an example of a firm's technological expertise enabling internationalizing firms to create brand awareness to overcome legitimacy challenges in the foreign market (Alarcón-del-Amo et al., 2018; Eid et al., 2020).

Our work provides several important contributions to IB research. Firstly, we contribute to the literature on internationalization in the digital context by showing how the spread of fake news stories on social media influences the activities of international firms. Our discussions on social media respond to two interrelated research calls. The first call for research is on the impact of digitalization on internationalization (Coviello et al., 2017; Vahlne & Johanson, 2017). The second relates to the emerging interest among firms in using social media (Shaikh et al., 2015). Secondly, management scholars have researched how organizations can maintain legitimacy in situations of crisis or lose legitimacy following a crisis (Bitektine, 2011; Elsbach, 1994; Sine & David, 2003; Suchman, 1995). Nevertheless, the current research contributes to the literature on international legitimacy by providing information informed by theory on the underlying mechanisms of the negative implications of social media fake news on the international legitimacy of firms in foreign markets, which is an emerging phenomenon in business (Di Domenico et al., 2021). By this, we respond to the call for more phenomenon-based research in IB (Doh, 2015). Thirdly, we cross-fertilize ideas from IB, information systems (IS), and international entrepreneurship (IE) to create new perspectives that improve our understanding of the ramifications of fake social media news stories for international firms. Given this, we respond to the call for interdisciplinary studies in IB research (Knight & Liesch, 2016).

2 Theoretical Background

2.1 *Internationalization and Legitimacy*

Scholars have applied different internationalization theories to explain internationalizing firms—thus, firms that have adapted operations (strategy, structure, resources, etc.) to international environments (Calof & Beamish, 1995). The behavioral approach, also known as the stage model of internationalization, is an example (Andersen, 1993; Kocak & Abimbola, 2009). The Uppsala model (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975) is also related to the stage model. The model demonstrates why firms internationalize later in their development and why such processes proceed gradually from inception (Autio et al., 2000). According to the model, firms internationalize by first targeting close markets

with low psychic distance and gradually expanding to other more distant markets. Firms following the stage model are known as gradual internationalizing firms (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975). Scholars consider the stage model of internationalization to consist of large, well-resourced MNEs (Knight & Cavusgil, 1996; Knight & Liesch, 2016). Criticisms of the stage model have given rise to another theoretical perspective known as early internationalization. Early internationalization refers to the early leap of firms into foreign markets to derive a significant competitive advantage from the use of resources and the sale of output in multiple countries (Oviatt & McDougall, 1994; Knight & Cavusgil, 2004; Wu & Zhou, 2018). According to the critics, the stage model fails to explain entrepreneurial firms that initiate early entry into foreign markets (McDougall et al., 1994; Oviatt & McDougall, 1994; Autio et al., 2000; Fletcher, 2008). Firms following the early internationalization model have attracted different names but the most used ones are early internationalizing firms (EIFs) (Knight et al., 2004), international new ventures (INVs) (Oviatt & McDougall 1994), and born globals (BGs) (Rennie, 1993; Knight & Cavusgil, 1996). For the sake of theoretical parsimony, in this paper we use EIFs. Unlike gradual internationalizing firms, EIFs have an international entrepreneurial orientation that has the potential to promote global technological competence (Knight & Cavusgil, 2004). Our main concern in this study is not to delineate the differences between gradual internationalizing firms and EIFs but to consider them as one by labeling them as internationalizing firms.

The literature shows that the survival of internationalizing firms depends on legitimacy—which is considered an intangible asset of the firm (Ahlstrom et al., 2008; Bangara et al., 2012; Bitektine, 2011; King & Whetten, 2008; Stinchcombe, 1965). Due to the liabilities of newness, which are exacerbated by liabilities of foreignness, internationalizing firms should build legitimacy in the host markets to obtain location-bound advantages such as new customers, access to resources from other firms, insidership permitting access to existing foreign networks, etc. Legitimacy is important to internationalizing firms (Bangara et al., 2012; King & Whetten, 2008). Fischer and Reuber (2007) described legitimacy as a socially constructed organizational resource. That characterization implies that the actions of an internationalizing firm in a host market will determine how it will be evaluated or judged by lead stakeholders such as potential customers and sellers. Legitimacy is a construct closely related to organizational reputation (Deephouse & Carter, 2005; Fischer and Reuber, 2007). Like organizational reputation, researchers have linked legitimacy to similar antecedents, such as organizational size, strategic alliances, isomorphism, and regulatory compliance (Deephouse & Carter, 2005). Research on internationalization shows that internationalizing firms can build legitimacy by imitating the behaviors of other firms in the host country, forming strategic alliances, and conforming to societal values, norms, and expectations (Wu & Zhou, 2018). Scholars of organizational theory have developed specific taxonomies of legitimacies (Bitektine, 2011); however, in our study our objective is neither to find the differences among the various types of legitimacies nor to juxtapose two or more legitimacy types. Instead, we seek to maintain a focus on international legitimacy (i.e., legitimacy in the foreign market). Through coercive, mimetic, and normative

processes, firms adopt systems, procedures, and structures that are considered appropriate in the environment to achieve legitimacy (DiMaggio & Powell, 1983; Kostova & Roth, 2002). In the following section, we delineate the role of social media in the context of internationalizing.

2.2 Social Media in the Context of Internationalizing

The inception of the Internet has changed the way international business is conducted. There has been a change in the locus of activity from the desktop to the world wide web (the Internet), a change in the locus of value production from the firm to the consumer, and a change in the locus of power from the firm to the consumer (Berthon et al., 2012). Information no longer remains local, and consumers have become creative. Social media platforms such as Facebook, Twitter, YouTube, WhatsApp, and the like mean consumers can access a firm's products and services, and also share reviews and content with the firms. The functionality of social media in performing the aforementioned activities is due to the physicality and accessibility stimuli associated with the social media context (McFarland & Ployhart, 2015). According to McFarland and Ployhart (2015), physicality stimuli of social media stand for the irrelevance of physical constraints in impeding interactions, whereas accessibility stimuli represent an open-access structure that facilitates the easy connection to networks.

Social media is a group of mobile and web applications that build on the ideological and technological foundations of Web 2.0 and allow users such as individuals and communities to create, share, collaborate, discuss, and modify user-generated content (Kaplan & Haenlein, 2010). Extant reviews show that social media can be categorized into public social media and enterprise social media (Wang et al., 2017b). Public social media encompasses social networking sites (e.g., Facebook, Twitter, Flickr, LinkedIn, Skype, Pinterest, Instagram), web-based communities (e.g., discussion boards, brand communities, and chat rooms), and the virtual world (e.g., Second Life and World of Warcraft). Enterprise social media encompasses firm blogs, websites, wikis, and other intranet communication media owned by the firm. In the context of the present study, our focus is on public social media.

Existing IB literature on social media and internationalization show that social media eliminates physical distance (Alarcón-del-Amo et al., 2018; Altshuler & Tarnovskaya, 2010; Ahmad et al., 2019; Arnone & Deprince, 2016; Vuori, 2012). It allows international firms to reach out to consumers in different geographical areas without having to be physically present there. Social media also provides opportunities to communicate and respond to competition, create awareness, create strategic partnerships with customers, and develop new capabilities to enhance customer relationships (Arnone & Deprince, 2016). Existing studies on brand building show that social media provides international firms with the opportunity to build brands (Cawsey & Rowley, 2016). Jones et al. (2015) established that firms utilizing social

media create better awareness, develop better relations with customers, increase sales, repeat sales, and more frequently have the opportunity to engage with customers. While extant contributions have shown the importance of social media in the context of international firms, we take a step further to focus on how the publication of fake news on social media has negatively affected the legitimacy of internationalizing firms.

2.3 Fake Social Media News Stories

Studies show that fake news has existed from the beginning of civilization; however, it has become more dominant in our contemporary digital era following the 2016 US elections (Baptista & Gradim, 2020; Di Domenico et al., 2021). Despite the popularity, scholars accord that there is still no agreed definition (Baptista & Gradim, 2020; Di Domenico et al., 2021; Petratos, 2021). Extant studies have used two distinct concepts—misinformation and disinformation—interchangeably to define fake news (Di Domenico et al., 2021; Wardle & Derakhshan, 2018). Following Baptista and Gradim (2020), we define it as “a type of online disinformation, with totally or partially false content, created intentionally to deceive and/or manipulate a specific audience, through a format that imitates a news or report (acquiring credibility), through false information that may or may not be associated with real events, with an opportunistic structure (title, image, content) to attract the readers’ attention and to persuade them to believe in falsehood, in order to obtain more clicks and shares, therefore, higher advertising revenue and/or ideological gain” (Baptista & Gradim, p. 22). Unlike fact news, careful analysis shows that fake news stories are significantly shorter news items with sparse use of technical words, less punctuation, fewer quotes, and more lexical redundancy, and which require lower levels of education to be interpreted (Baptista & Gradim, 2020; Horne & Adali, 2017).

Sharing fake news content on social media has become routine. For example, people have used WhatsApp to spread fake news stories about the conflict between Hindus and Muslims (Baptista & Gradim, 2020). Similarly, during the 2018 presidential elections in Brazil, WhatsApp was used as a political tool to spread fake news (Baptista & Gradim, 2020). The dissemination of fake news stories on social media also became popularized during the 2016 US presidential election (Allcott & Gentzkow, 2017). While using social media to disseminate false information is common in politics, it is also present in the corporate world, from small start-ups to large firms. For example, people can disseminate fake news content on Facebook and Twitter to undermine the legitimacy of firms (Baptista & Gradim, 2020; Chen & Cheng, 2019; Di Domenico et al., 2021; Valenzuela et al., 2017). Moreover, firms looking to generate traffic to their websites can create false reviews or even create fake comments to prompt customer trust and confidence (Chen & Cheng, 2019). While most studies on fake news have focused on political psychology, we shift the focus to international firms. In the following section, we focus on the development of a conceptual framework and propositions.

3 Conceptual Development and Propositions

3.1 *Influence of Fake News Stories on Internationalizing Firms*

Scholars have isolated two main actors that create and disseminate fake news on social media. According to Zhang and Ghorbani (2019), the two main actors are human beings and non-humans. Humans¹ can be people with fake accounts who firms hire to run smear campaigns on competing brands. Non-human creators of fake news are social bots² and cyborgs³ (Chu et al., 2012; Ferrara et al., 2016; Zhang & Ghorbani, 2020). According to Berthon and Pitt (2018), firms may be victims of or implicated in fake news in several ways. First, when the name of the firm or its brand is mentioned in fake news. Second, when the firm's ads appear alongside fake news items. Third, when the firm associates its brand with opinion and commentary websites that publish misleading content. Fourth, when firms finance fake news. Anecdotal evidence indicates that international companies such as Walmart (and its subsidiary Sam's Club), McDonalds, Mondelez International, Pepsi Company, and Coca-Cola have all at some point been negatively affected by fake news. For example, prior to the 2016 US presidential election, the stock of Pepsi Company fell around 4% when fake news content on social media reported the CEO, Indra Nooyi, telling Trump supporters to "take their business elsewhere" (Berthon & Pitt, 2018; Obada, 2019; Vafeiadis et al., 2019). Furthermore, in 2016, the market share for Apple Music slowed due to fake news posted on a blog claiming that Apple was deleting its music collections (Berthon & Pitt, 2018). Fifth, when firms deliberately use endorsements and fake reviews to deceive the external public to undercut ethical business. For example, in 2022 Amazon sued AppSally and Rebatest for acting as fake-review brokers to boost third-party sellers' products' ranking in Amazon search results (Palmer, 2022).

From the lens of the consumer, studies illustrate that fake news on social media about firms impaired consumers' brand trust (Chen & Cheng, 2019; Di Domenico et al., 2021; Visentin et al., 2019). Di Domenico et al. (2021) explain that fake news on social media causes consumers to develop low media trust, creates doubts and confusion in the minds of consumers, and even causes them to rely unconsciously on such information for subsequent behavioral actions. Fake social media news and reviews present a social problem as an increasing number of stakeholder decisions to consider an internationalizing firm legitimate in the host market are based on them. For example, when consumers and the local community discover that an internationalizing firm is using fake reviews and other forms of deceptive endorsements, their judgment, evaluation, and attitude to that firm and its brand turn

¹Such people are known as trolls (Kim et al., 2021).

²Social bots are computer algorithms that exhibit human-like behaviors. Thus, they automatically produce content and interact with humans on social media (Ferrara et al., 2016).

³Cyborgs are human-assisted bots (Ferrara et al., 2016).

negative. Legitimacy is about conforming to societal values, norms, and expectations (Wu & Zhou, 2018). In view of this, manipulating online reviews is in contrary to the accepted way of doing business in a foreign market, which can urge local governments to take actions against the firm because it is prejudicial to fair competition in the host market. We offer the following proposition:

Proposition 1 Fake news on social media negatively impacts international legitimacy.

3.2 *Social Media Capability*

The work of Penrose (1959) conceiving the firm as an administrative organization and a collection of productive resources, set the foundations for the Resource-based view (RBV) of the firm (Carrick, 2013). The RBV theoretical framework assumes that a firm's competitive advantage depends on its resources and capabilities. Barney (1991) isolated four theoretical conditions needed to make a firm's resources a competitive advantage within a market, the so-called VRIN Framework where "V" stands for the value of resources, "R" represents the rareness of resources, the "I" is the inimitability of resources, and the "N" is the non-substitutability of resources. Social media may not be rare and does not vary across firms due to the relatively recent diffusion and the open access to create an account (Di Domenico et al., 2021; McFarland & Ployhart, 2015). Furthermore, social media appear imitable because it is open access available for competing firms, and people are proficient at using it privately. Therefore, what is created and shared can be imitated by others. Given the VRIN/VRIO framework, scholars (e.g., Vitale, 1986; Clemons & Row, 1991; Powell & Dent-Micallef, 1997; Bharadwaj, 2000; Sinkovics et al. 2013; Fernandez & Nieto, 2006; Herhausen et al. 2020) question the direct influence of digital technology on the attainment of sustained competitive advantage and firm performance. According to the scholars, the digital technology available to firms (e.g., Social media—Facebook, Twitter, LinkedIn, etc.; software and hardware), the ease of duplicating or imitating the use of digital technologies once in existence even for a comparatively short period complicate firms sustaining competitive advantage and performance. However, scholars argue that it can only lead to sustainable competitive advantage and performance when they are used to leverage differences in strategic resources and capabilities. Similarly, Penrose (1959) argued that when the same resource is common to competitors, competitive advantage can arise through superior use. Given the conditions mentioned above, we argue that though social media is common to all, not all people or firms may have the capabilities to use it to manage complex legitimacy crises arising from fake news stories. The social media capabilities of firms are reflected in their abilities to use social media platforms for consumer reviews, and to keep consumers and other stakeholders in the host market well-informed. For example, an Indian restaurant in London (Karri Twist) was falsely accused of serving human meat and was consequently shut

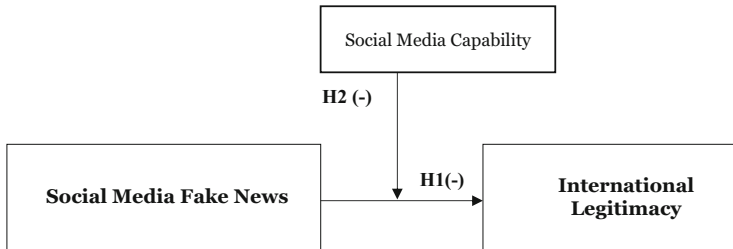


Fig. 2 Proposed Conceptual Framework

down. The restaurant received bomb threats and lost over half of its revenue. The owner's response was swift and effective: He posted a denial of the allegations on Facebook, tweeted to calm disgruntled consumers, and even had broadcast a Facebook Live session from inside the operating restaurant to prove it had not shut (BBC, 2017; CBC, 2017). In the same vein, when Starbucks became a victim of a fake news story on Twitter that it was giving out free coffee to undocumented migrants in the USA, it immediately responded to users who were sharing this false information via social media (Chen & Cheng, 2019; Obada, 2019; Vafeiadis et al., 2019). Vafeiadis et al. (2019) encourage firms affected by fake news stories to carefully plan a response strategy to minimize the negative impact, which is what the owner of Karri Twist and Starbucks did. In sum, the usage of social media to respond to fake news and allegations or for legitimate reviews on sites like Google, Yelp, Tripadvisor, and Facebook provide a social proof that can diffuse the negative perceptions that consumers and the local community of the host market may have about the internationalizing firm. Accordingly, we offer the following proposition:

Proposition 2 Social media capability weakens the negative consequences of social media fake news on international legitimacy.

Our discussions and derived propositions lead us to propose a normative conceptual model (see Fig. 2). The model focuses on the moderating role of social media capability as a basis for explaining the underlying mechanisms of the consequences of fake news stories on international legitimacy.

4 Discussion and Conclusions

The ubiquity of social media usage among individuals and firms and the increasing spread of fake news stories make it worthwhile to explore the ramifications of fake news stories on international firms. Our observations unearth some studies on the ramifications of fake news on businesses; however, the underlying nuances that explain the effects are scarcely addressed. Fueled by existing cases of fake news stories concerning international firms such as McDonalds, Pepsi Company, Tesla, and Coca-Cola, this study explores the underlying mechanisms present between the

negative effects of social media fake news on international legitimacy focusing on moderators. Given this aim, this study provides theoretical evidence on the moderating role of social media capability. As part of the explanation, we develop a conceptual model and propositions that detail the underlying mechanism between fake news content and brand trust. The model expresses the need for researchers to consider the non-linearity and interdependencies between fake social media news and international legitimacy.

Our model proposes that fake social media news stories have a negative influence on international legitimacy. The ubiquity of social media has paved the way for everyone to criticize their experiences with a firm's actions in real-time. This includes social bots, cyborgs, and people with fake social media accounts hired to run smear campaigns on competing brands (Chu et al., 2012; Ferrara et al., 2016; Zhang & Ghorbani, 2020). We found a plethora of cases that pinpoint the ramifications of fake news stories via social media on international legitimacy. Some of the things that stand out are that social media fake news stories question the international legitimacy of internationalizing firms. It can put doubts and confusion in the minds of consumers and the local community of the host market and can also even cause consumers to unconsciously rely on such information for subsequent behavioral actions (Di Domenico et al., 2021).

Studies show that most people who have encountered social media fake news tend to believe them, which highlights the potential ramifications for firms if fake news is refuted (Vafeiadis et al., 2019). For example, according to a survey report, 75% of American adults who have encountered fake news tend to believe it (Silverman & Singer-Vine, 2016). In our model, we propose social media capability as a moderating variable to examine how the ramifications of fake social media news stories on international legitimacy can be mitigated. First, we conceptualized social media capability as the firm's ability to use social media platforms for consumer reviews, and to keep consumers and other stakeholders in the host market well-informed. We found that victimized firms such as Starbucks and Karri Twist used social media to minimize the negative impact of fake news stories. Karri Twist denied the accusation on Twitter and created a Facebook Live video. Starbucks also attacked the accusers on social media and responded to Twitter users inquiring about the promotion by declaring there was no truth to it (Vafeiadis et al., 2019). The responses of both firms on social media reduced the credibility of the stories (Vafeiadis et al., 2019). Therefore, we posit that using social media to keep consumers well-informed has the potential to weaken the ramifications of fake news on international legitimacy.

4.1 Theoretical Implications

The importance of this study is reflected in the studies on the liability of foreignness (i.e., difficulty in achieving legitimacy) associated with international firms (Bangara et al., 2012; Zaheer, 1995). Our focus is on the conceptual theorization of the

negative implication of fake social media news stories on the international legitimacy of firms. Theoretically, we make the following contributions:

Firstly, responding to the call for research on the impact of digitalization on internationalization (Coviello et al., 2017; Vahlne & Johanson, 2017), we contribute to the literature on internationalization in the digital context and social media research by showing how the spread of fake news stories on social media influences internationalizing firms. In the light of digitalization, fake news is taking over social media and putting the survival of firms at risk (Di Domenico et al., 2021). Originally, internationalizing firms are known to be stifled by the challenge of achieving legitimacy in host markets (Bangara et al., 2012; Zaheer, 1995), but arguably this has been intensified by the upsurge of social media fake news. We showed that social media fake news stories have impaired establishing consumer brand trust and the way they evaluate firms' brands and operations (Chen & Cheng, 2019; Di Domenico et al., 2021; Visentin et al., 2019).

Secondly, responding to the call for more phenomenon-based research in IB (Doh, 2015) and the call for research on the emerging interest of firms in using social media (Shaikh et al., 2015), this study contributes to studies on social media fake news phenomenon in the context of international business. We introduce a conceptual theorization on the underlying mechanisms surrounding the mitigation of the ramifications of fake social media news on international legitimacy, which is an emerging phenomenon in business (Di Domenico et al., 2021). We proposed social media capability as contingent condition necessary for weakening the ramifications of fake social media news on international legitimacy. We argue that internationalizing firms with the ability to use social media to inform leading stakeholders, such as consumers, can respond to fake news promptly to counter its escalation. As Vafeiadis et al. (2019) reported, such firms engage in careful planning and develop response strategies to minimize the effects of disinformation.

Thirdly, our study contributes to the studies on the ramifications of fake social media news in IB research. However, the underlying mechanisms available to mitigate the ramifications are less clear. Our conceptual model and propositions unpack the underlying mechanisms: We describe how fake social media news and reviews influence international legitimation moderated by social media capability. According to the model, fake social media news and reviews negatively influence international legitimation in that it can cause consumers and the local community of the host market develop a negative attitude to that firm and its brand, whereas social media capability mitigate the negative influence. Finally, this study responds to the call for more interdisciplinary studies (Cavusgil & Knight, 2015; Etemad, 2017; Knight & Liesch, 2016) and cross-pollinates perspectives from IB, IE, and IS to enhance the understanding of the ramifications of fake social media news on the international legitimacy of internationalizing firms. We argue that just as digitalization has created a medium for firms to internationalize across geographical borders, so have the realities of research changed (Knight and Cavusgil, 1996). Therefore, IB scholars cannot ignore the power of digital technologies originating from the digital context, nor do scholars in IS ignore internationalization. Given this, the

interdisciplinary nature of our study creates new perspectives or frameworks that improve our understanding of the social media fake news phenomena.

4.2 Practical Implications

The ubiquity of disinformation in social media and the propensity to cause damage to a firm's legitimacy in a host market demand that managers and entrepreneurs see it as their responsibility to identify ways and strategies to overcome it when it occurs. Our study encourages the reader to view social media capability as a crucial FSA that can support an internationalizing firm to mitigate the harm that social media fake news can cause. We showed that during legitimacy crises, highly international entrepreneurial-oriented firms adopt innovative ways to register their presence online, such as the use of Facebook Live, sharing a post, and commenting on posts by consumers to create brand trust among consumers. Therefore, managers and entrepreneurs must develop a strong social media capability throughout the firm and become more entrepreneurial.

Entrepreneurs and managers should understand the importance of social media to the firm's activities. Existing literature demonstrates that knowing how to integrate social media is more important than knowing what it is used for (Wang et al., 2017a). Therefore, our study highlights the importance of social media capability as reflected in the firm's ability to use social media to inform lead stakeholders in times of legitimacy crises. This finding calls for entrepreneurs and managers who know what social media is used for but do not know how to integrate it into their activities to invest in developing their social media capability. Doing so will help them to understand the key features of social media, identify suitable social media initiatives, and decide on appropriate social media applications and potential solutions if their firms fall victim to fake social media news items.

Finally, our study has elaborated on practical cases on the ramifications of fake social media news on the legitimacy of international firms such as Apple, Starbucks, Coca-Cola, and others. By this, we postulate that entrepreneurs and managers can take lessons and incorporate them into their individual firm's operations. Furthermore, looking at the grave ramifications of fake news for firms, policymakers, managers, and entrepreneurs should help lead stakeholders and the general public in identifying fake news stories. Firms should train people on how to use AI (artificial intelligence) to trawl social media fake news or use it to detect bots, for instance, on Twitter. The literature reports on various AI tools such as credibility scoring, disinformation, bot/spam detection, codes and standards, verification, and whitelisting (Petratos, 2021). However, the firm must select which of those best suits its methods of managing digital disinformation and how such a solution could be implemented in its business operations. At the country level, policymakers such as the government of Finland has put structures in place to train the populace on how to identify fake news (Mackintosh, 2019). This is a positive step and should encourage

similar initiatives in other countries, especially emerging economies, as social media usage becomes dominant (von Abrams 2019).

4.3 *Limitations and Suggestions for Future Research*

Our study unveils several avenues for future theoretical advancement on social media and internationalization research in the IB field. First, our proposed conceptual model and propositions could be tested in future studies from both quantitative and qualitative perspectives to broaden our understanding of the underlying mechanisms of how internationalizing firms mitigates the ramifications of fake social media news on international legitimacy. Presently, the digital transformation trend prevails in different industry sectors (Petratos, 2021); therefore, we encourage future studies to test our conceptual model in different sectors. We believe this will help us to understand how industry sector-specific variation influences how the ramifications of fake social media news on international legitimacy are mitigated. Furthermore, the current study is conceptual. We encourage future studies to test our conceptual model. Doing so could confirm the applicability of our conceptual model in the research stream of firm internationalization.

We have incorporated social media capability as a contingent factor explaining how the ramifications of fake social media news can be mitigated; however, future studies can consider incorporating other contingent factors such as strategic flexibility (Wu & Zhou, 2018) and partnerships (Petratos, 2021). On strategic flexibility, the reason is that it enables internationalizing firms to actively respond to environmental uncertainties (Wu & Zhou, 2018), a typical example is when the firm's legitimacy is at the center of skepticism in the host market. Lastly, on partnerships, the reason is that joining forces with other firms enhances capacity building and can create economies of scale and scope to aid the focal firm in mitigating the spread of online fake news.

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Network Ties and Opportunity Recognition in SME Internationalization in the Social Media Context



Emmanuel Kusi Appiah 

Abstract This chapter aims to enhance our understanding of how internationalizing SMEs strengthen their network ties and how the strengths of those ties in the context of social media underpin opportunity realization in the foreign market. It adopts Granovetter's dimensions of tie strength and its results reveal duration, intimacy, and reciprocity to be the dimensions on which the tactics adopted by the case firms to strengthen ties are based. Further, the analysis shows that the firms' use of those tactics is rooted in their ability to use social media platforms to connect with, engage, coordinate, and collaborate with their online followers. The chapter contributes to research on social capital, opportunity recognition, the social media context to expand extant literature on interdisciplinary studies.

1 Introduction

Digital technology occupies a key position in the United Nations (UN) 17 Sustainable Development Goals (SDGs) for it fosters innovation and industrial sustainability (UN, 2022). It is also considered as a force that influence the speed of new venture internationalization (Monaghan et al., 2019; Vadana et al., 2021). A contactless digital technology artefact influencing internationalization that has attracted attention within both academia and non-academic forums is social media (SM) platforms. Social media platforms are digital channels such as Facebook, YouTube, Twitter, and LinkedIn that facilitate information sharing, user-created content, and collaboration across multiple individuals (Freixanet et al., 2020; Kaplan & Haenlein, 2010; McFarland & Ployhart, 2015). In non-academic sectors, SM platforms are becoming increasingly important strategic tools for firms (Parveen et al., 2016) and are changing the interactions between firms and consumers (Kao et al., 2016). Internationalizing small and medium-sized enterprises (SMEs) often lack sufficient knowledge of foreign markets; a situation commonly expressed as the

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liability of newness (Zaheer, 1995); have difficulty in achieving legitimacy, known as the liability of foreignness (Zaheer, 1995); experience difficulty in accessing existing foreign market networks, something expressed as the liability of outsidership (Johanson & Vahlne, 2009); and lack sufficient resources (Zahra, 2005). Prior studies (e.g. Arnone & Deprince, 2016; Nowiński & Rialp, 2016) viewed the leverage provided by SM platforms as a strategic resource that could be deployed to create social networks, extracting information from foreign markets, and mitigating probable challenges from foreign market uncertainties and liabilities (Alarcón-del-Amo et al., 2018). Despite these few theoretical contributions, with few exceptions (e.g. Fraccastoro et al., 2021; Nowiński & Rialp, 2016), neither the international entrepreneurship (IE), international business (IB) or interactive marketing literature offers a great deal of research on SM platform usage in the networks of internationalizing SMEs, a point confirmed by Zucchella (2021) in the context of IB and IE issues and their association with SM platforms. Moreover, research on how the usage of SM platforms strengthens network ties or the associated opportunities generated for firms remains scarce. This is an important area that warrants research attention because anecdotal evidence (e.g. Johanson & Mattsson, 1988; Williams et al., 2020) shows that network ties facilitate SME internationalization. For instance, network ties enable international SMEs to overcome liabilities of newness and smallness (Coviello & Munro, 1995). Further, scholars (e.g. Coviello & Munro, 1995; Ellis, 2011; Johanson & Mattsson, 1988) have argued that opportunity recognition is influenced by participation in networks. Therefore, the present study aims to enhance our understanding of the networking tactics of internationalizing SMEs in the context of SM. We view SM as not simply a technology but a context for interaction that fundamentally changes the way in which the cognition, affects, and the behaviour of individuals are shaped (McFarland & Ployhart, 2015). While studies on SM strategies and tactics have focused on communication and marketing (e.g. Királová & Pavlíček, 2015), we opted to focus on networking in a SM context, which is relatively an unexamined type of context (McFarland & Ployhart, 2015). For the study's research purposes, networking tactics are what a firm does with its SM marketing capability to establish relationships with others. An SM marketing capability refers to the firm's ability to use SM platforms to connect, engage, coordinate, and collaborate in interactions with partners (Drummond et al., 2020) while a relationship or network refers to the extent to which users relate to each other, converse, share information of sociality virtually or regard each other as a follower or fan (Kietzmann et al., 2011).

Accordingly, the research questions guiding this study are: How do internationalizing SMEs strengthen their network ties in the SM context? and how does the strength of those network ties trigger opportunity realization in a foreign market? We undertake a detailed exploration of these research questions from both theoretical and practical viewpoints. While many studies (e.g. Ellis, 2011; Gilbert & Karahalios, 2009; Granovetter, 1973) have applied tie strength in different contexts and at different levels of analysis, in this study, we applied organizational-level network-tie analysis in the context of SM and SME internationalization. On network type, the study's focus is not on a specific network (e.g. suppliers). In order to have

an in-depth and holistic understanding of network tactics and strategies, the focus is on any network in general which encompasses customers, suppliers, individuals, and other online followers. Arguably, understanding how network ties are strengthened via the SM context and the related opportunities realized will lead to the effective use of SM platforms. The theoretical arguments of the study is based on the social network approach focusing on ties (Granovetter, 1973), SM marketing capability literature, and SME internationalization. Following Quinton and Wilson (2016), the author extends the investigation of ties into the under-researched SM context. The empirical basis of this study is data from internationalizing Finnish SMEs. The study adopts a multiple-case study using the netnography approach and semi-structured interviews to collect data. Considerably, netnography is a novel approach because it offers the opportunity to observe and fully understand online interactions between network parties in the digitalized environment (Quinton & Wilson, 2016).

This study makes the following theoretical contributions to expand extant IB literature and theories. First, it contributes to social capital studies in the context of SM. Social capital studies seek to explain variation in success as a function of network ties (Borgatti & Foster, 2003); however, the present study extends this further by providing a nuanced understanding of how network ties are strengthened in SM. The study achieves that through its focus on SM marketing capability literature and the entrepreneurial behaviour of firms informed by the social network approach. Second, as Maltby (2012) stated, ‘little is known about the principles, processes, and tools that entrepreneurs can use to accelerate their startups’ internationalization from inception’ (p. 22). By integrating SM into the discussion as a contextual facilitator of network-tie strength in firm internationalization, this study advances knowledge of the processes and tools that facilitate internationalization processes in SMEs (and in our case, startups). The study thereby contributes to the call made by Coviello et al. (2017) to investigate digitalization as a new context of firm internationalization. Third, according to Knight and Liesch (2016), opportunity-related studies are an emergent force in internationalization research, and this contribution integrates international perspectives of SMEs and SM to advance our knowledge of opportunity-based studies (Knight & Liesch, 2016), thus responding to the call for interdisciplinary studies (Cavusgil & Knight, 2015).

2 Theoretical Background

2.1 *The Social Media Context*

A context refers to as ‘... situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables’ (Johns, 2006, p. 386). The SM context comprises both the omnibus and discrete contexts (McFarland & Ployhart, 2015). The omnibus context represents a human-constructed digital system based on Web 2.0 technology that facilitates social interaction and communication (e.g. Twitter, LinkedIn, and

Facebook). In contrast, the discrete context represents specific characteristics that influence the occurrence and meanings of behaviours (Johns, 2006; McFarland & Ployhart, 2015). According to McFarland and Ployhart (2015), the discrete ambiance encapsulates the following characteristics. First, physicality, which represents the irrelevance of physical constraints in hindering SM interactions (McFarland & Ployhart, 2015). Second, accessibility, which stands for open-access structure that facilitates an easy connection to networks. Third, temporal (latency), which represents the instantaneous nature in sharing content. Fourth, interdependence, which refers to the interrelatedness of interactions. Fifth, synchronicity and asynchronicity, which represents the possibility to be temporally ‘in tune’ or interact at one’s own pace. Sixth, permanence which relates to the longevity of posts on SM. Seventh, verifiability relates to the extent to which content posted to SM can be checked.

2.2 Social Network Approach

According to social network theory, the number of connections or the strength of ties in a network is inversely related to relationship quality (Quinton & Wilson, 2016). Granovetter (1973) proposed a four-tie strength dimension to determine the strength of network ties. The ties are duration, intimacy, intensity, and reciprocal services. Scholars (e.g. Gilbert & Karahalios, 2009) have adapted the dimensions in a SM context. In the context of SM, duration means the frequency of contact among ties, and intimacy means the number of friends/followers, time since the last communication, and the extent of communication between ties, such as the exchange of messages, sharing of posts, and direct messages (Gilbert & Karahalios, 2009). Intensity means closeness (Marsden & Campbell, 1984), measured, for instance, by inbox messages exchanged, participant-initiated wall posts, friend-initiated wall posts, and comments on pictures. Finally, reciprocal services are links exchanged by wall posts, etc. Reciprocity relates to the transmitting and sharing of content and others responding to, possibly commenting, showing likes, or sharing with others, and is acknowledged as strengthening business relationships (Quinton & Wilson, 2016). Existing studies (e.g. Gilbert & Karahalios, 2009) focus on how the network-tie dimensions predict tie strength on SM. However, the underlying tactics that strengthen network ties have not been revealed.

2.3 Social Networking Tactics

In this paper, we define networking tactics as what a firm does with its SM marketing capability to establish relationships with others. According to Drummond et al. (2020), SM marketing capability encompasses four layered abilities. They are, the ability to connect, engage, coordinate, and collaborate in interaction with partners in a network. First, the ability to connect means targeting and receiving messages from

users from beyond the firm's local networks (Drummond et al., 2020). Second, the ability to engage means using SM to communicate and exchange social and business messages among partners—which can be termed as social-interactive engagement (Calder et al., 2009). Engagement in a social media context is marked with different perspectives, namely—engagement focused non-purchase activities, engagement focused on purchase activities, and engagement focused on both non-purchase activities and purchase activities (Calder et al., 2009; Halloran & Lutz, 2021; Malthouse et al., 2013). Third, the firm's ability to coordinate means using SM to interact and share resources between partners. Fourth, the firm's ability to collaborate means using SM for co-creation activities, such as creating new products or solving problems among partners (Drummond et al., 2020). Extant studies (e.g. Loureiro & Kaufmann, 2018) have investigated how these tactics influence the behaviour of firms and consumers.

2.4 Social Media and Opportunity Recognition in SME Internationalization

Internationalizing SMEs leverage SM as a strategic resource to undertake entrepreneurial action, such as the creation of social networks, extraction of information on foreign markets, or mitigation of probable challenges arising from foreign market uncertainty (Alarcón-del-Amo et al., 2018; Arnone & Deprince, 2016). Arnone and Deprince (2016) focused on the role of social networking sites in the internationalization of small businesses and found that SM usage enables small ventures to create professional and personal relationships with foreign partners, identify market opportunities, and reduce the effect of psychic distance. Nowiński and Rialp (2016), in contrast, examined the role of social networks in the developmental process of international new ventures (INVs) and found that SM contributes to the development of INVs by providing new information to support founders in identifying and assessing international opportunities.

To conclude, SM can be of considerable help to internationalizing SMEs by providing opportunities to communicate with current and prospective customers, create awareness, create strategic partnerships with customers, and develop new capabilities to enhance customer relationships (Malthouse et al., 2013). However, the inherent nuances and opportunities derived from the strength of network ties established via SM among internationalizing SMEs are not fully understood. This is puzzling given that SM platforms contain several communication features that support network building, such as status updates, chats, wall posts, inbox messages, LinkedIn suggested contacts feature, Twitter Highlights, and Twitter hashtags. To understand the tactics that firms employ with these SM features to strengthen network ties and the associated nuances and opportunities, the author conducted qualitative research among internationalizing SMEs that have adopted SM as one of the strategic tools in their organizational activities.

3 Methodology

The study applied a case study method to provide a thorough understanding of the dynamics present within single settings (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Further, the case study method was appropriate because it allowed the author to analyse the phenomenon (network ties and opportunity recognition) and context (SM) simultaneously (Ellis, 2011; Yin, 2003). The author opted for a multiple-case study design to identify similarities and differences among the cases without any form of manipulation (Yin, 1994). The entire study followed the steps proposed by Yin (2009) for conducting a multiple-case study that includes theory development, case selection, and design of the case-specific data collection protocols, preparation, and analyses. The theoretical framework underpinning this study is the social network approach, and the analysis is supported by SM marketing capability and SME internationalization literature.

3.1 Case Selection

This study followed a purposive sampling method to select the case firms to ensure that selected firms suited the purpose of the study and were homogeneous (Patton, 2015), using the following criteria for case selection. First, the case firm must be an SME with fewer than 250 employees (Eurostat, 2020). The study focused on SMEs because they are known to adapt to using new technologies and can often be quicker to address international opportunities—and be more flexible and responsive—than large firms (Crick, 2009). Second, the firm that should have already started internationalizing right from inception and should be using or have used SM at least within 3 years since inception. Arguably, the author used the 3-year time frame to minimize validity issues and recall bias. In sum, seven firms meeting all the criteria were contacted, and four agreed to participate. The selected firms fit the purposes of theory building concerning the investigated phenomenon. The number of cases selected is in line with Eisenhardt's (Eisenhardt, 1989) suggestion that having four to ten cases usually provides a basis for generalizing from case material to theory. Table 1 provides a short description of the case firms investigated. For reasons of confidentiality, the names of the firms were represented by fictitious names.

3.2 Data Collection

As reported by Yin (2002), case study research should be supported with multiple sources of evidence. Given this, the study follows a two-stage qualitative research, in that the author employed netnographic research principles (Kozinets et al., 2014)

Table 1 Background of case firms

| Firm | Alpha | Gamma | Power | Beta |
|--|---|--|--|--|
| Year of inception | 2015 (operations began 2016) | 2016 | 2012 | 2015 |
| Area of operation | Cleaning industrial equipment with ultrasound power | Software development business | Provides energy competencies to B2B customers based on lean principles and built on teamwork | Design and distribution of industrial lighting for mining, oil and gas, and heavy industries |
| Founders | 2 persons | 2 persons | 1 person | 2 persons |
| Foreign operations | Thailand, Japan, the Netherlands, Switzerland, Spain, Sweden, and the United States | Europe and the United States | Japan, Sweden, Czech Republic, Germany, Belgium, and Norway | Sweden, Norway, Denmark, Estonia, Latvia, Lithuania, and the UK |
| Share of foreign sales within 3 years of establishment | 95% | 70% | 70% | 85% |
| Headquarters | Helsinki, Finland | Helsinki, Finland | Vaasa, Finland | Vaasa, Finland |
| Social Media Account Starting Year | Facebook, Twitter, YouTube, Instagram, and LinkedIn (2017) | Facebook, LinkedIn, and Twitter (2016); YouTube (2017); Instagram (2018) | Facebook, Twitter, and LinkedIn (2014) | LinkedIn and Facebook (2015) |

involving analysing the firms’ websites, SM platforms, and blogs, and combined that approach with semi-structured face-to-face interviews. Data from both sources ensure construct validity, that is, triangulation (Yin, 2002, 2013). Using a netnographic research approach provides the researcher with an idea of what people are actually doing, not what they are perceiving, or what they tell outsiders in an interview situation. In the context of this study, the author use the netnographic approach to understand the social interactions of the case firms on SM platforms. The sampling duration for data collection from the SM platforms of the case firms was from March 2018 to June 2021. The author conducted the procedures manually by using an excel code sheet to record the information. Table 2 provides some of the data elicited from the SM platforms of the case firms that occurred during the two rounds of interviews.

The adoption of semi-structured face-to-face interviews creates flexibility and makes it possible to obtain diverse insights. The author ensured that the questions for the semi-structured interviews were correctly designed and met reliability standards by piloting them to check for inconsistencies before the actual interview process was

Table 2 Social media data on case firms

| Firm | As at first interview | LinkedIn | Twitter | Facebook | YouTube | Instagram | As at second interview | LinkedIn | Twitter | Facebook | YouTube | Instagram |
|-------|-----------------------|----------------|---|----------------------------|--|---|------------------------|----------------|---|----------------------------|--|---|
| Alpha | As at first interview | 390 followers | 203 followers 203 following 374 tweets 400 likes | 90 followers 80 likes | 22 subscribers 4 videos 13.0 K views | 86 followers 133 following 74 posts | As at second interview | 431 followers | 208 followers 209 following 390 tweets 489 likes | 100 followers 86 likes | 55 subscribers 4 videos 13.4 K views | 97 followers 135 following 86 posts |
| Gamma | As at first interview | 2234 followers | 132 followers 183 following 653 tweets 90 likes | 56 followers 50 likes | 8 subscribers 4 videos 1.4 K views | 264 followers 122 following 180 posts | As at second interview | 2234 followers | 161 followers 183 following 828 tweets 190 likes | 117 followers 94 likes | 9 subscribers 5 videos 1.5 K views | 408 followers 152 following 358 posts |
| Power | As at first interview | 64 followers | 23 following 23 followers 58 tweets 0 likes | 329 followers 326 likes | | | As at second interview | 80 followers | 25 following 24 followers 58 tweets 0 likes | 329 followers 326 likes | | |
| Beta | As at first interview | 132 followers | | 22 followers 20 likes | | | As at second interview | 141 followers | | 22 followers 23 likes | | |

Table 3 Data collection process

| Firm | Alpha | Gamma | Power | Beta |
|---|--------------------|-------------------------------------|--------------------|--------------------|
| Position | Marketing Director | Chief Commercial Officer/Co-founder | CEO (entrepreneur) | Marketing Director |
| Length of interview (first round) | 1 h 10 mins | 1 h | 1 h 15 min | 1 h 05 min |
| Venue (first round) | Company premises | Company premises | Company premises | Company premises |
| Date | 09/04/2019 | 08/05/2019 | 10/05/2019 | 16/05/2019 |
| No. of transcribed pages | 20 pages | 17 pages | 20 pages | 19 pages |
| Length of interview (second round) | 48 min | 50 min | 1 h | 40 min |
| Venue (second round) | Company premises | Company premises | Company premises | Company premises |
| Date | 02/05/2020 | 14/05/2020 | 18/05/2020 | 16/05/2020 |
| No. of transcribed pages | 15 pages | 14 pages | 18 pages | 14 pages |
| No. of textual pages transcribed from SM platforms (e.g. comments, videos, podcast, and photos) | 25 pages | 21 pages | 17 pages | 12 pages |

conducted. During the interview process, close attention was paid to the interview protocol to ensure that the right questions were asked and continued by revising the protocol with probing questions as and when necessary. The interviewing was conducted in two rounds. The first round of interviews centred on the firm’s establishment, its internationalization process, objectives for initial SM usage, and ongoing SM usage strategies for networking. The second round of interviews focused mainly on the opportunities and dynamics associated with the ongoing use of SM for networking. Table 3 provides an overview of the data collection process facilitated by semi-structured interviews.

3.3 Data Analyses

The author audio-recorded the interviews and transcribed verbatim into Microsoft Word documents. Thereafter, a summary report of the transcribed interviews was sent to the interviewees to check the accuracy of the information. In addition, the author transcribed the contextual observations made in each interview formulated as interim summaries. The interim summaries proved to be invaluable aids in that they supported developing reflexivity in recalling the context, the observation content, and the subsequent interpretations (Saunders et al., 2016). Following Miles et al. (2014), the author cleansed the data to remove irrelevant information. The analyses began by assigning codes to the data chunks using in vivo coding to detect recurring

patterns and then combined similar codes to form pattern codes or themes (Saldaña, 2013). Next, a cross-case analysis was conducted using concepts from network ties, SM marketing capability, and opportunity recognition literature as a guide to derive conclusions.

4 Findings

4.1 *Omnibus Context*

According to the findings, psychosocial context within which interaction ensues includes Twitter, LinkedIn, Instagram, Facebook, and blogs (see Table 2). The aforementioned contexts provide the case firms the ability to strengthen network ties.

... Instagram, Twitter, and LinkedIn help us to not only reach out but also to connect ... We are actively visible on LinkedIn and keep posting photos and interesting discussions.
(Gamma, chief commercial officer)

4.2 *Discrete Context*

The findings are structured so as to reflect the tactics for strengthening network ties focusing on the dimensions of network strengths identified in the literature, which is supported by SM marketing capability and the associated opportunity that is recognized in a discrete context. The analysis reveals three dimensions of network strength: duration, intimacy, and reciprocity.

4.3 *Duration*

Clear differences are not evident among the node structures (i.e. the type of followers who follow the case firms). The findings show that the followers include customers, business executives, partners, and ordinary people. The chief commercial officer of Gamma explained:

For example, on Instagram, there are businesspeople, our customers, people in the industry, and even people who are in entertainment and who have nothing to do with our business but are interested in what we do ... On LinkedIn, there are customers, business people who are either prospective employees for us or prospective customers and industry people.

Given the asynchronous nature of SM context, when we asked about the frequency of contact with and postings to followers, the author found the numbers varied for each firm. According to the marketing director of Alpha, the firm is active on SM weekly to share industrial-related content and comment on relevant content.

The firm also updates its blog page at least three times every month. The CEO of Power described how the firm was active on a semi-regular basis and used time efficiently to share content with its networks. Gamma's chief commercial officer described the firm as active online most of the time: 'We do not do it daily yet, so it is still like every other day, but I would say three times a week'. In contrast, the marketing director of Beta stated the firm used SM as much as possible but was not frequently active:

Yes, we are using it as much as possible . . . We are looking for a path, setting goals and objectives . . . Now we are building on our existing strategy on how we can use it [SM] more in the future for our online networking.

4.3.1 Opportunity Recognition

The findings indicate that the frequency of online (Saldaña, 2013) content postings and commenting has enabled the case firms to bolster brand recognition, as exemplified below:

We are actively visible on LinkedIn and keep posting photos and interesting discussions. This has increased the traffic to our LinkedIn profile. We have visitors from the USA, UK, and countries around the globe . . . Our foreign networks have increased. Because we have a strong presence on SM, companies would like to associate themselves with our brand. (Gamma)

We use google analytics weekly to analyse our blog page to find out how many people read our article, what specific pages they visited, and also the top countries the visitors are from . . . Sometimes, the USA is first, followed by Finland . . . it really varies . . . Some of our followers have contacted us expressing their interest in our technology, requesting that we send them some of the presentations and showcase videos. (Alpha)

4.4 Intimacy

Table 2 illustrates how the number of SM followers of the case companies has increased rapidly over the years. For example, during the first round of interviews, Gamma had 2234 followers on LinkedIn, 132 on Twitter, 56 on Facebook, 264 on Instagram, and four subscribers on YouTube. However, by the time of the second round of interviews, Twitter followers had risen to 161, Facebook followers to 117, Instagram followers to 408, and the firm had nine subscribers to its YouTube videos. The shared content on the various SM platforms shows a diversity of tactics adopted by the case firms to enhance their intimacy with followers. For example, tweeting customers' success stories.

Moving with Gamma has given us one referential place, and we were able to tailor the database to fit our workflow, rather than our workflow changing to match the database. Customer X (Tweeted by Gamma, 11th June 2021)

Apart from tweeting, the case firms adopted tactics that included posting project-based cases, customer cases, using periodic suggestions from LinkedIn to connect to potential contacts, posting engaging messages, videos, industrial news, events, and achievements on various SM platforms, and sending its online followers a link to its blog site. The following exemplifies the process involved:

For customers, it is about staying active and showing them what we are doing, sharing, and engaging with them through informative content, and providing more insights for them . . . On our Instagram page, we post project-based cases and customer cases . . . Some of the companies that have scrolled through our Instagram page have contacted us expressing their interest in our technology, requesting that we send them some of the presentations and showcase videos. (Alpha)

We take advantage of the periodic suggestions made by LinkedIn of users whose interests or profiles are similar to our area of operations . . . Usually, we send them requests, and those that accept our requests, we send them offers and information on our services . . . That initiates the networking journey (Power)

In posting engaging contents, the findings also reveal that the access characteristic related to a social media context influences the way it is carried out.

A lot is happening on social media, and the content you post can be rendered obsolete by newer postings from other users . . . Yes, we customize. Every post that goes out we think of like, who is this message for, and what is the target of that message, always. (Gamma).

Furthermore, intimacy was evident in those postings focused on firm-related achievements, generating comments and likes. For example, a LinkedIn posting made by Gamma about one of its achievements garnered 143 likes and prompted 22 comments. That posting is reproduced below.

The secret is out! We're excited to share that we've closed a \$16 Million Series A round led by Sapphire Sport (Sapphire Ventures) and supported by Icebreaker.vc and Global Founders Capital! (Shared by Gamma in April 2021)

Remember well when you called me years ago and sold your solution. I couldn't go with you, but I realized these are serious [about the] business. The work rewards the perpetrator, and your journey has continued [and delivered] tremendous growth. Congratulations! (Comment from a follower)

Congratulations—really looking forward to the next chapter of growth! (Comment from a follower)

4.4.1 Opportunity Recognition

The current investigation reveals the tactics used to enhance intimacy with followers include writing short LinkedIn posts, posting pictures of events, posting on the company's activities to engage followers on SM (e.g. LinkedIn, Instagram, and Twitter). Moreover, those tactics have enabled the case firms to recognize opportunities in foreign markets. According to the CEO of Power, using SM has increased the visibility of the firm. He also asserted that taking advantage of periodic suggestions of other LinkedIn users based on the firm's background provided by LinkedIn

enables the firm to conduct prospecting and build new ties. The CEO described how the firm sends friend requests to such people and organizations, and those that accept their requests are sent offers and messages about the firm's services. In the operations of Beta, according to the marketing director, the firm has tried Facebook and LinkedIn but of the two, LinkedIn has created a clearer opportunity for the firm to expand its foreign networks and enhanced its brand image. He explained:

We have used LinkedIn. The focus is to measure and find the winning solution. In addition, Facebook ... we have not tried Twitter ... LinkedIn has supported us immensely in expanding our foreign networks ... Over the years our LinkedIn contacts are growing, and the brand image has enhanced.

Further, browsing the SM (LinkedIn and Twitter) used by followers and their comments, has created opportunities to convey knowledge and broaden accessibility for Alpha and Gamma.

You start to see, followers (firms) who are really active online ... also they tell us what is happening ... for example, if we have an expo somewhere we sometimes get information from our networks, their postings on LinkedIn and Twitter ... We can actually see what the world is doing through them, in our industry (Alpha).

For the target group, which is business-to-business, we reach out to relate to them in the best way through LinkedIn ... We use LinkedIn to understand the key people we are meeting; who they are and where they are coming from ... (Gamma).

4.5 *Reciprocity*

The content shared on the SM pages of the case firms included videos, retweeted news, industry issues, events, and photographs of firm-related activities. Gamma has 262 photos and videos on its Twitter page, Alpha (144), Power (2). Because time and space are no longer barriers, the interdependence characteristics of SM context allowed the opportunity for interactions to emerge between the case firms and followers. Followers viewed and commented on shared videos, discussions, events, and photos of firm-related activities. For example, Gamma shared a video explaining its core values on LinkedIn on May 4th, mothers' day and it garnered 702 views, 39 likes, and four comments. 'What a way of celebrating May the 4th! ... Love it!' (Comment by a follower).

Among the case firms specifically Gamma, Alpha, and Power have strategies and tactics that support the effective use of SM in strengthening ties through the process of reciprocity

... As our strategy, we connect to companies and those that accept our request to follow us, we also follow back. So, there's already a connection ... We also post interesting content on our pages (Gamma, chief commercial officer)

When it comes to all platforms, such as Instagram and Twitter, there are companies that are actively using them and some of these are following us. Going through their online profiles, we also follow those we deem relevant ... Our followers not only read our posts but also sometimes comment on them or like them (Alpha, marketing director)

Our SM strategy is quite simple but is proving effective. One colleague does most of the LinkedIn short postings, I like them and share them, depending on content and aim. We get comments and likes from our followers and send replies to most of the shared posts. (Power, CEO)

The author found the LinkedIn page of Beta had little content, which the marketing director explained is because the firm has few followers. In view of that, they use their private LinkedIn accounts to engage with potential clients.

I make a post and my colleague does, on the company's activities and impending events on LinkedIn and links them to our networks. Through that, we have received positive comments and inquiries from people from different countries. (Beta, marketing director)

Furthermore, the case companies' Twitter pages feature retweets that reflect reciprocity. Interesting information shared by followers or partners on Twitter that related to the case firms was retweeted. On the Twitter pages of Gamma and Alpha, we found numerous examples of retweeted content, some of which we reproduce below.

One of the best parts of leading the Salesforce ISV team is that I get to meet incredible entrepreneurs from around the globe. Congrats to our appexchange partner, Gamma for announcing their \$16M Series A led by XXX (retweeted, Gamma, January 28, 2021)

A must-watch! Roger Berman, ZenWorks Licensing takes you on a walkabout of everything on show at Licensing Japan – an actual real-life trade show! (retweeted, Gamma, on April 15, 2021, 2 likes)

Hello alternative sources of protein! joins X House and expands to Europe as they partner up with Y and bring their insect-based products to stores in Poland, Czech Republic, Bulgaria & Croatia! (retweeted, Alpha, Apr 22, 2020, 24 likes)

4.5.1 Opportunity Recognition

According to the findings, frequent interactions with followers, especially companies on SM fostered opportunity recognition in foreign markets. Scrutinizing the actions of Gamma and Alpha in reciprocally following the LinkedIn, Instagram, and Twitter pages of other firms and other followers revealed the firms were identifying opportunities through such actions.

A lot of opportunities are available . . . You start to see, especially people who are active on the market . . . Well, I would say, first, getting new customers. That is the number one that we get from there . . . also, we get current information . . . for example, if we have an expo somewhere we get information from our networks' postings on LinkedIn and Twitter . . . We can see what the world is doing through our frequent interactions with our followers (Gamma, chief commercial officer)

. . . also, when it comes to Twitter, a simple hashtag will reveal information on companies. At the beginning of last year, I tried to search for information on some of the companies following us who do the same thing as we do, and lo and behold, I had access to all that they have said or written about their operations . . . (Alpha, marketing director)

Furthermore, the findings show that the interactions between the case firms and followers have enhanced their brand visibility and opened new foreign market avenues. For instance, sharing posts and case videos meant the case firms received requests from foreign companies.

On our Instagram page, we post project-based cases and customer cases ... and we have been contacting those who have expressed an interest in our solutions by sending them private messages. (Alpha, marketing director)

Through my high-quality network of more than 2500 contacts ... what we post, and share reaches foreigners, and it increases our visibility. (CEO, Power)

We have received positive comments and inquiries from people from different countries ... LinkedIn has supported us immensely in expanding our foreign networks ... Over the years our LinkedIn contacts are growing, and the brand image has been enhanced. (Beta, marketing director)

We are active and visible on LinkedIn and keep posting photos and interesting discussions. This has increased the traffic to our LinkedIn profile. We have visitors from the USA, Finland, and countries around the globe ... Our foreign networks have increased. (Gamma, chief commercial officer)

5 Discussion

Figure 1 incorporates the findings to present a conceptual framework illustrating how internationalizing SMEs strengthen their network ties in the SM context and the associated opportunity realization in a foreign market.

As pointed out by McFarland and Ployhart (2015), understanding the nature of behaviour within a SM context requires understanding of both the discrete and omnibus context. As shown in the conceptual model, relationships or networks are supported by discrete ambient characteristics (i.e. interdependence, accessibility, and asynchronicity) and omnibus context (i.e. LinkedIn, Twitter, Facebook, Instagram, and blog). This differentiates SM from traditional (e.g. face-to-face) and other digital (e.g. email) contexts (McFarland & Ployhart, 2015). For example, unlike traditional (e.g. face-to-face) which demands close physical proximity to gain opportunity to change from being an outsider to an insider to a network (Ibarra & Andrews, 1993), the open access of SM enabled the case firms to attract numerous followers.

In line with Granovetter's (1973) dimensions of tie strength, the conceptual model shows that the case firms based tactical initiatives such as tweeting customers' stories, retweeting stories, posting contents, and commenting on contents posted by followers to strengthen ties on the dimensions of reciprocity, intimacy, and duration. The tactical initiatives emerge from the case firms' SM marketing capabilities in the form of their ability to use an SM platform to connect and engage with prospective customers and then coordinate interactions with online followers (Drummond et al., 2020). We found that because the case firms (e.g. Gamma) have a strong presence on SM, other companies wish to associate themselves with their brand. This confirms Granovetter's (1973) assertion that the strength of a tie is determined by duration,

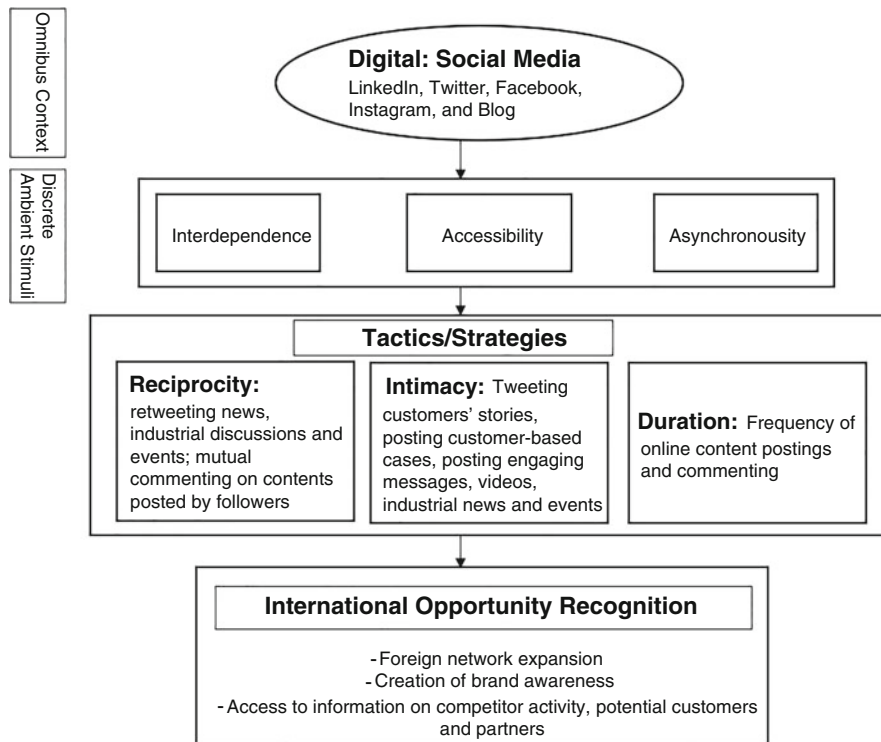


Fig. 1 Conceptual framework developed from the findings

which in the present study refers to how often the case firms post content or engage with followers on SM. As a way of improving intimacy, the case firms adopted the tactic of maintaining online activity, sharing informative content with followers and engaging with them, and exchanging direct messages (Marsden & Campbell, 1984). For example, Alpha follows up periodic suggestions of people or firms to connect with offered by the LinkedIn application to expand its own network of connections, and if the connection request is accepted, the firm sends information on its services. The case firms exhibit different levels of intimacy in terms of the number of followers and level of engagement focusing on non-purchase activities (Gilbert & Karahalios, 2009; Halloran & Lutz, 2021; Malthouse et al., 2013). The analyses corroborate existential theorization that reciprocity strengthens relationships (Granovetter, 1973; Quinton & Wilson, 2016), which was evident in the case of Gamma and Alpha. Reciprocity appears in the form of expressing interest by following back those who follow the firm, retweeting news, industrial discussions, events, and photos posted by followers, and mutual commenting on content.

Concerning opportunity recognition, the conceptual model brings to light the importance of the tactical initiatives. To a certain extent, some of the opportunities are similar and some are extensions of the others. For example, according to the CEO

of Power, using LinkedIn to strengthen online network ties creates opportunities for expanding into foreign networks. Findings from the other case firms extend this notion by including opportunities such as the creation of brand awareness, access to information on competitor activity, potential customers and partners, and industry events. Furthermore, unlike the traditional business network perspective, where weak ties are usually direct (Ellis, 2011), the results of the analyses show that internationalizing SMEs can obtain information from weak ties that are either direct or indirect. For example, in using a Twitter hashtag to search for information on competitors, the marketing director of Alpha was able to access information on what they do, what they have said, and what others have said about them. Another example was provided by Power leveraging the suggestions of people or firms to connect with that come via the LinkedIn platform to identify and approach prospective customers. Despite the case firms' earliness in the foreign market, the findings show that writing short posts, posting pictures and videos of events, commenting, liking, and retweeting shared posts by the case firms have enhanced their brand awareness and offered access to new foreign market knowledge and opportunities. The findings corroborate extant studies asserting that SM usage has a positive impact on networking and information accessibility (see Arnone & Deprince, 2016; Parveen et al., 2016). Further, the findings provide evidence on how to overcome the problem of legitimacy, which is tightly coupled with the liability of foreignness associated with young internationalizing SMEs. The findings confirm the assertion in social network theory that a larger number of connections enhance information accessibility (Quinton & Wilson, 2016) but it is contrary to the assertion that too many connections might result in difficulty in managing information and relationship with network members (Burt, 1992). Arguably, the contrary finding is a result of the presence of the discrete ambient characteristics (i.e. accessibility, asynchronicity, and interdependence) of the SM context. For example, the SM platforms used by the case firms are open (accessible) to more followers (interdependence) from any location in a convenient manner (asynchronicity). The findings show that the ability to interact anywhere, anytime, with followers, and according to one's schedule has the potential to strengthen network ties.

6 Conclusion

This study utilized theoretical arguments drawn from the social network approach, SM marketing capability literature, and SME internationalization literature to investigate how network ties are strengthened in an SM context and how it supports opportunity recognition in a foreign market. Thus, the study offers both theoretical and practical insights.

6.1 *Theoretical and Practical Implications*

First, the study contributes to social capital studies in the context of SM usage at the organizational level. Instead of trying to explain variation in success as a function of network ties (Borgatti & Foster, 2003), we take a step further by providing a nuanced understanding of how network ties are strengthened on SM. By integrating insights from social network theory, opportunity recognition literature, and literature on SM, the study highlights the associated tactics and corresponding opportunities recognized in the usage of SM.

Second, the digitalization of business operations has challenged the traditional way of conducting foreign business operations, prompting researchers to investigate the sources and implications of the use of digital technologies. By studying network ties and opportunity recognition via SM, the study advances our knowledge of the processes and tools that facilitate internationalization processes among SMEs, and specifically, startups. In so doing, it contributes to research on the internationalization of firms in a digital context (Coviello et al., 2017) and the call for interdisciplinary studies (Cavusgil & Knight, 2015).

Finally, the study advances our knowledge of opportunity-based studies by highlighting some of the strategies used by internationalizing SMEs for opportunity recognition in the context of SM usage and network ties. According to Ellis (2011), little is known about the strategies used for opportunity recognition. Similarly, Knight and Liesch (2016) revealed that opportunity recognition studies are an emergent force in internationalization research. In bringing into the limelight the associated opportunities with network-tie strengths via SM, the study contributes to emergent studies on opportunity recognition.

From a practical point of view, this study will help international entrepreneurs and information technology managers understand the efficacy of SM in online network development and opportunity recognition in an overseas market. International entrepreneurs are encouraged to utilize more digital content marketing activities (e.g. making posts and sharing videos, presentations, and product offers) as an important element of an SM strategy. That advice is based on the findings of the present study indicating that digital content marketing activities disseminated via SM play a key role in strengthening online network ties and facilitating the opportunity recognition process of internationalizing firms.

6.2 *Limitations*

The current study is qualitative, meaning the potential for statistical generalization is limited. However, the findings are generalizable in relation to theory (Yin, 2013). Furthermore, the data may be culturally biased since the case firms are from Finland. Therefore, it is recommended that future studies conduct a similar study with SMEs from different cultural contexts. Lastly, the possibility of SM also weakening

network ties was beyond the scope of this study. Therefore, scholars are encouraged to have a careful examination of this.

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Part II
Environmental Sustainability

Green Entrepreneurship as Environmental Commitment and Eco-innovation Among International Businesses: A Review and Research Agenda



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Abstract Green entrepreneurship, though still under-studied, has become a matter of general sustainable development discourse. This chapter reviews the concept of green entrepreneurship adopted by international businesses in pursuit of environmental commitment and eco-innovation within the corpus of literature to identify common practices, trends, and gaps for future research agenda. Through bibliometric analysis and thematic analysis, an exploration of common environmental commitment and eco-innovation practices among international businesses was conducted using VOSviewer software. Consequently, the main themes were derived and discussed. Additionally, the study identifies literature gaps relevant to formulating a possible future research agenda.

1 Introduction

Global warming and climate change were included in the world's development goals at the beginning of the twenty-first century. It was recognized that human endeavours and commercial operations were badly impacting the environment. Scientists contend that climate change results from the toxic and other pollutants industry emits. All parties involved in the political and economic spheres have to work together with environmentalists to lessen the consequences of climate change (Junior et al., 2016; Khan, 2015; Kulkanjanapiban & Silwattananusarn, 2022; Long & Blok, 2021; Malavisi, 2018; Massoudi et al., 2017; Matthews et al., 2017). Climate change has certainly become one of humanity's protracted concerns worldwide. Climate change is a unique challenge and may be the most significant market failure the

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global economy has seen in years. The ongoing growth in human activity as a result of major modernization and the usage of fossil energy has accelerated greenhouse gas emissions into the environment. Many international institutions and economies are moving towards sustainable development and growth motivated by environmental preservation concerns and climate change adaptation (He & Liu, 2018; Matthews et al., 2017).

The world body, United Nations, is working hard to keep temperatures leading to global warming beneath 2 °C at the end of the century to preserve humanity and the ecosystem from the harmful effects of climate change (Adekoya et al., 2021). As a result, numerous governments in both developed and emerging economies have undertaken steps to minimize greenhouse gas emissions and speed funding flows to green and environmentally friendly projects (Tudo et al., 2021; Mrkajic et al., 2019; Muo & Azeez, 2019; Orduña-Malea & Delgado-López-Cózar, 2018). East African businesses and society now have better access to global capital markets due to Finance 4.0. (Vida et al., 2020).

1.1 Concept of Green Entrepreneurship

The promotion of environments that are favourable for biodiversity has grown, and thanks to creative intelligence, a new field of research known as “green field” has emerged (Pham et al., 2019; Saari & Joensuu-Salo, 2019; Sen & Theres von Schickfus, 2020; Shunsuke et al., 2022). Demuth (2014), for example, defines green creative entrepreneurialism as an entrepreneur’s capacity to win over stakeholders to his/her innovations, seize power over the value chains, and profit from his/her ability to address environmental issues. Demuth (2014) contends that the degree of success obtained through inventive efforts is determined by the entrepreneurs’ capacity to draw investors for their original ideas.

Dale (2018) defined entrepreneurship as a storytelling process whereby entrepreneurs garner stakeholder support to accomplish their goals. According to the literature, experts are yet to reach an agreement on a definition for green entrepreneurship because it is still in its infancy (Mrkajic et al., 2019; Muo & Azeez, 2019; Orduña-Malea & Delgado-López-Cózar, 2018; Pham et al., 2019; Saari & Joensuu-Salo, 2019; Sen & Theres von Schickfus, 2020; Shunsuke et al., 2022; Stahlshmidt & Stephen, 2020; Tee et al., 2017).

According to Buck Consultants (2011), 60% of firms currently measure efficiency by focusing on green programmes, with 78% achieving efficiency in electricity, two-thirds indicating paper savings and heating/cooling, and 60% reducing water use expenses. As a result, a higher percentage of respondents than in the previous year’s survey—roughly 69%—said they are already experimenting with being green in their various endeavours (Vida et al., 2020; Zhaojun et al., 2017; Demirel et al., 2017). As evidence, Khan (2015) asserts that the only practical, sustainable approach enables company owners to start their operations and depend on “going green” for success and protracted survival.

The extent to which certain companies engage in “greenwashing” to utilize marketing ploys to entice unsuspecting people to their brand also serves to highlight the power of green practices in expanding consumer bases for specific brands (Kulkanjanapiban & Silwattananusarn, 2022; Long & Blok, 2021; Malavisi, 2018; Massoudi et al., 2017). Saari and Joensuu-Salo (2019) defined greenwashing as giving out false information regarding the company’s green activities. Zhaojun et al. (2017) have found that genuine green businesses are likely to have high levels of consumer loyalty despite the rising problem of greenwashing. Therefore, dishonest companies that pose as green or environmentally friendly to gain an unfair competitive advantage can only succeed in the short term.

To put it another way, organizations that have recognized the value of becoming green are now better positioned to take advantage of sustainable market prospects than those that are faking it but are not by trying to include greening within their operating procedures (Junior et al., 2016; Khan, 2015; Kulkanjanapiban & Silwattananusarn, 2022; Long & Blok, 2021; Malavisi, 2018; Massoudi et al., 2017; Matthews et al., 2017). However, young green business people’s difficulty in this aspect cannot be understated (Long & Blok, 2021; Malavisi, 2018). If green entrepreneurship is to be broadly accepted, these hurdles including the absence of sufficient government assistance and the challenge of evaluating funding and markets, among others—must be overcome (Kulkanjanapiban & Silwattananusarn, 2022; Long & Blok, 2021; Malavisi, 2018; Massoudi et al., 2017).

Green entrepreneurs overcame these obstacles because they were determined to run compassionate and ecologically conscious businesses (Adekoya et al., 2021; Arezki, 2021; Bannamar & Gressel, 2015; Barbieri et al., 2016). Thus, their sincerity of intent led to a positive reputation as environmentally friendly businesses with goods and services that clients would be happy to use (Consoli et al., 2016; Dale, 2015, 2018). It should be in our best interests to band together in favour of the recently established green businesses that promote sustainability in all its forms (Consoli et al., 2016). Alternatively, it is in everyone’s best interest to ensure that new, green-born businesses thrive and achieve their goals (Mrkajic et al., 2019; Muo & Azeez, 2019; Orduña-Malea & Delgado-López-Cózar, 2018; Pham et al., 2019).

Transitioning to reduced carbon and more sustainable economies needs a capital boost from corporate and governmental sectors (Long & Blok, 2021). Green entrepreneurship is defined as entrepreneurship that aims to provide environmental advantages in the context of attaining ecological sustainability while yielding good returns (Long & Blok, 2021). Climate entrepreneurship, environmental entrepreneurship, sustainable entrepreneurship, and carbon entrepreneurship are all phrases that are used interchangeably with green entrepreneurship (Giuliana & Chiappini, 2021; Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016; Arezki, 2021).

Ever since the 2015 Paris Climate Agreement, green entrepreneurship has become a vital facilitator in combating dangers caused by environmental harm and climate change. According to Pham et al. (2019), the global effort of the Paris Agreement has raised the risk of return for stocks in polluting businesses. Green entrepreneurship provides a solid foundation for long-term growth and sustainable

development (Frydrych, 2021). In the Intended Nationally Determined Contributions (INDCs), more than 200 nations have declared their desire to cooperate to minimize climate change's effects (Arezki, 2021). Numerous scholarly articles explore the reaction of European and global firms and markets to the Paris Agreement (Sen & Theres von Schickfus, 2020).

1.2 Sustainability and International Businesses

Businesses can be domestic (national) or international. Domestic business refers to commercial transactions within a nation's borders. It is a company whose business operations are carried out within a country. Both the company's producer and its clients are citizens of the nation. Because the buyer and seller in a domestic transaction are from the same nation, the trade deal is rooted in national laws, traditions, and practices. A domestic firm benefits from various advantages, such as cheap transaction costs, a quick turnaround from production to sale, affordable transportation, and support for small businesses. An international business entails a company where production and trading occur outside the country of origin (Matthews et al., 2017; Meyskens & Carsrud, 2013; Mohammed, 2018; Mrkajic et al., 2019).

All economic endeavours involving cross-border trade fall under the category of international or external business. It covers all business transactions between two or more nations, such as sales, investments, and logistics. A multinational or international corporation conducts business internationally (Pham et al., 2019). These businesses benefit from a sizable international consumer base; therefore, their resource needs are open to more than just one nation. Additionally, international business increases investment and commerce between nations. As a result, a firm is considered domestic if its economic transactions are carried out within the nation's borders. A firm involved in economic transactions with more than one country is said to be doing international business (Pham et al., 2019; Saari & Joensuu-Salo, 2019).

The outcomes of corporate operations (both national and international) help to raise communal well-being (Matthews et al., 2017; Meyskens & Carsrud, 2013; Mohammed, 2018; Mrkajic et al., 2019). However, the effects of these commercial operations may undermine social and environmental development. Natural calamities like landslides, floods, droughts, or wildfires result from unchecked resource extraction; thus, it is important to strike a balance between economic focus and conservation of the environment. In order to ensure sustainability, the existing economic framework requires a mechanism to regulate the effects of corporate activities (Hörisch et al., 2017; Jones & Gettinger, 2016; Arezki, 2021).

The global community needs a unifying programme that addresses the welfare of future and current generations to enhance well-being and social equality. In order to fulfil social welfare and maintain the quality of natural resources, corporate activities must align with sustainability ideals (Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016).

Entrepreneurs must regard social programmes, environmental protection, and cultural and social developments to align with sustainability issues. The general population must readily understand this, particularly in the business sector. The education system must play a crucial role in transforming learning and knowledge paradigms to support sustainable development in order to safeguard environmental protection for upcoming generations (Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016; Arezki, 2021).

The businesses should make sure that the surroundings are secure and sanitary. They may do this by encouraging natural resource use and sustainable economic practices. This chapter will examine two opposing viewpoints on whether a firm has a moral obligation to protect the environment (Matthews et al., 2017; Meyskens & Carsrud, 2013; Mrkajic et al., 2019). According to the first viewpoint, the business should willingly allocate part of its financial means to the battle against climate change. In the second case, MNCs and other parties are supposed to accept a legally obligatory policy. The companies' monetary commitments to assist initiatives aimed at reducing climate change will be specified in the policy.

(a) Voluntary action

Managers from several multinational companies concur that quick responses are required to the problems caused by environmental changes (Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016; Arezki, 2021). The businesses have understood that successful climate change management would benefit them. MNCs can make voluntary commitments towards the effort to counter the threat in light of these evident measures.

Multinational enterprises have signalled their desire to contribute to the effort to combat this issue. The corporations' intention to follow the many rules that have been established and their reaction to customer proposals regarding climate change show their goodwill.

(b) Legal requirement

A reputable company, like an MNC, would be willing to assist with the fight against climatic changes in such situations (Hörisch et al., 2017; Jones & Gettinger, 2016). Nevertheless, in the absence of compelling laws that would impose trade-offs, the company will not have the ability to keep its moral obligation (Harzing, 2019; Arezki, 2021).

The issue informs the moral requirement to contribute financially to the battle against climate change of harm to other people. Producers, users, non-clients, and coming generations are all impacted by environmental destruction (Harzing, 2019; Hörisch et al., 2017; He & Liu, 2018; Arezki, 2021; Jones & Gettinger, 2016). A business should not remain at peace while committing such social harm (Matthews et al., 2017; Meyskens & Carsrud, 2013; Mohammed, 2018; Mrkajic et al., 2019). Hence, reducing and ultimately avoiding this kind of injury is morally needed. The best action in this situation is for a corporation to respond to environmental challenges independently.

The knowledge of green entrepreneurial strategies by international enterprises still needs to improve, even though the significance of climate change in

developing activities is apparent. As a result, the current analysis attempts to draw attention to the following main question: (1) What are the bibliometric characteristics of the research corpus on green entrepreneurship as environmental commitment and eco-innovation among international businesses? (2) Which themes/key concepts dominate the current body of knowledge on green entrepreneurship practices by international businesses? (3) What are the major green activities done as environmental commitment and eco-innovation practices among International Businesses?

1.3 Chapter Objectives

The chapter's main objective is to review the concept of green entrepreneurship adopted by international businesses in pursuit of environmental commitment and eco-innovation within the corpus of literature. The specific objectives are (1) To reveal the bibliometric characteristics of the research corpus on green entrepreneurship as environmental commitment and eco-innovation among international businesses. (2) To extract the major themes/key concepts explored and how they are related. (3) To expose the major green activities done as environmental commitment and eco-innovation practices among International Businesses.

1.4 Study Justification and Significance

It is critical to conduct bibliometric analysis because it synthesizes studies in an area of interest, assesses the level of agreement or lack thereof within the body of knowledge, displays trends and identifies gaps, and recommends research directions (Chen & Song, 2019).

The bibliometric analysis provides a comprehensive overview of the knowledge landscape on selected topics to budding scholars (Chen & Song, 2019). The current study supports veteran researchers by supplying an up-to-date standing of the literary works and highlighting gaps that can lead to future research areas on topics of interest (Lang et al., 2021). This research provides decision-makers access to a synthesis of literature demonstrating the presence or absence of consensus.

2 Theoretical Review

Some theories explaining why international businesses can adopt green entrepreneurship as environmental commitment and eco-innovation among international businesses are legitimacy theory, multi-stakeholder theory, and knowledge spillover theory (Acs et al., 2009; Demuth, 2014).

2.1 Legitimacy Theory

Legitimacy theory suggests business owners should know the structures and institutions relevant to their working environment (Demuth, 2014). In order to establish their legitimacy to offer any goods or services that the general public would accept, those businesspeople had to be capable of recognizing and comprehending these structures and systems. Hörisch et al. (2017) viewed institutions as embedded elements of societal structures with a propensity to specify or issue obligatory rules that businesses or business owners must abide by to succeed. Additionally, Khan (2015) contends that sustainable development cannot occur until there is a balance between economic expansion for accumulating riches and environmental protection. Legitimacy theory encourages businesspeople to use institutions to achieve the legitimacy they need to survive (Jones & Gettinger, 2016). Hence, legitimacy within the current context refers to how people see the essence of the interaction between a business and the rest of the institutions within its scope concerning social conventions and principles, which should be balanced. The explanation is that greening is a sustainability-focused strategy for business administration that has emerged to make up for past wrongs committed by the previous strategy for business operations (Giuliana & Chiappini, 2021; Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016). So, it is wise for astute businesspeople to incorporate sustainability into their endeavours in the modern corporate environment. As a result, everybody should support green entrepreneurship.

2.2 Knowledge Spill-Over Theory

Business benefits and prospects frequently result from knowledge stored internally. The knowledge is accumulated over time, covering the period from the creation of the business enterprise up to the current period (Demuth, 2014). This knowledge acquired over time can benefit future entrepreneurship initiatives through knowledge spill-over (Acs et al., 2009). Within the context of knowledge spill-over, new business startups may be influenced to follow green entrepreneurship by past experiences of other businesses which have realized the importance and enjoyed the benefits of green entrepreneurship.

2.3 Multi-stakeholder Theory

The impact of enterprises on stakeholders varies according to their interactions with the business. While there are benefits, such as the supply of goods and services that address specific societal requirements, the creation of jobs, and the advancement of

improvements in the quality of life for individuals, there are also drawbacks, such as the constant monopolization of space, corporate greediness, ecological degradation, and many others. Moreover, Mohammed (2018) notes that firms have more negative externalities than favourable ones on stakeholders. As a result, we use the fact that there are numerous environmental stakeholders to support our justification for innovation and green entrepreneurship over traditional ways of doing business.

3 Research Method

3.1 Theoretical Basis

The research was guided by the theoretical framework Qiang et al. (2022) postulated. The framework identifies two aspects: the research front, which constitutes what is cited by the research front, and the intellectual base, which consists of everything cited by the research front.

Presume that (t) symbolizes a group of terms and phrases associated with advancements over time t and that (t) includes groups of articles cited by articles from which the research front terms were derived.

By adding the following expressions, relations can be established within the framework: S_{title} is a collection of title words, $IsHotTopic(term, t)$ is a Boolean function, and $article_0 \text{article}$ indicates that $article_0$ cites $article$.

$$\Phi_{(t)} : \Psi_{(t)} \rightarrow \Omega_{(t)} \quad (1)$$

Furthermore, defined notations and the outlined elements can show relations that showcase the research's theoretical base.

$$\Psi_{(t)} \{ \text{term} \mid \text{term} \in S_{\text{title}} \cup S_{\text{abstract}} \cup S_{\text{descriptor}} \cup S_{\text{identifier}} \wedge IsHotTopic(\text{term}, t) \} \quad (2)$$

$$\Omega_{(t)} = \{ \text{article} \mid \text{term} \in \Psi_{(t)} \wedge \text{term} \in \text{article}_0 \wedge \text{article}_0 \rightarrow \text{article} \} \quad (3)$$

The expression in (1) demonstrates a mapping of terms and phrases connected to new trends and advancements. (2) displays phrases and terms that resemble the intellectual foundation. Finally, the association in (3) exposes the intellectual foundation of article categories cited by other articles.

3.2 Research Strategy

The current analysis was carried out in phases. The first phase was to define and formulate research questions. The second phase entailed developing inclusion and exclusion criteria to guide the decision on whether or not to include a document. The

criteria used in the study were guided by the following factors: language, publication type, and title (Booth et al., 2016). The third phase involved conducting a literature search within the database of choice.

The articles were chosen based on a preset vetting criterion in the fourth phase. Documents were transferred to visualization software for bibliometric analysis in the fifth stage. The sixth phase involves creating maps from text and bibliographic data. The phase entailed presenting research findings, drawing conclusions, and recommending future research.

3.3 Search Strategy

The search strategy entails selecting a relevant database and creating search strings.

3.3.1 Identification of a Database

The Web of Science (WoS) is the one that has been in existence for the longest period among the most well-known database. Clarivate Analytics operates and controls WoS. Elsevier's Scopus database, founded in 2004, introduced competition to the bibliometric database arena. Scopus seeks a happy medium between quantity and quality, whereas WoS places a high value on quality over quantity (Stahlschmidt & Stephen, 2020). Digital Science, a subsidiary of Holtzbrinck Publishing Group, launched the Dimensions database, which is well known for its reputable publishing house, SpringerNature. Digital Science created the Dimensions database in response to two concerns: (1) existing databases focused on publications as the primary scientific output, and (2) a significant part of the research corpus was inaccessible to researchers (Adams et al., 2018).

In terms of citation counts and coverage, Dimensions matches WoS and Scopus (Thelwall, 2018; Orduña-Malea & Delgado-López-Cózar, 2018; Harzing, 2019; Stahlschmidt & Stephen, 2020; Kulkanjanapiban & Silwattananusarn, 2022). According to the results of an exponential regression test conducted by Kulkanjanapiban and Silwattananusarn (2022), the Dimensions database grew at a rate of 15.32% per year, while Scopus grew at a rate of 14.85% per year. In a nutshell, the per year publication rate of growth for researchers on Scopus was revealed to be lesser than that on Dimensions.

According to a study by Kulkanjanapiban and Silwattananusarn (2022), Dimensions enhances the number of citations mildly more than Scopus, and citation counts correlate positively between the two databases. Stahlschmidt and Stephen (2020) compared three databases, WoS, Scopus, and Dimension, based on a field of study coverage and German articles. Dimensions had the highest rate of exclusive articles, with 20% of its documents not being found in WoS or Scopus, compared to 6.3% for Scopus and 2.1% for WoS. Harzing (2019) compared Dimensions, WoS, and Scopus, finding that Scopus and WoS provided less coverage than Dimensions.

Using a sample of 20 journals, 28 authors, and 262 articles, Orduña-Malea and Delgado-López-Cózar (2018) compared Dimensions and Scopus coverage and citations in library and information science. According to the study, Dimensions surpassed Scopus in terms of coverage. As a result, the authors concluded that Dimensions is a viable substitute for Scopus.

Still, another study, Thelwall (2018), evaluated by comparing Scopus and Dimensions in regard to their coverage, using a sample of 84,691 food science records from 2008 to 2018 and a random sample of 10,000 records from 2012, and the results suggest that these databases performed similarly for coverage and citation counts for food science papers published.

As per Thelwall (2018), Orduña-Malea and Delgado-López-Cózar (2018), Harzing (2019), Stahlschmidt and Stephen (2020), Kulkanjanapiban and Silwattanusarn (2022), Dimensions is fairly similar to Scopus and may even be the superior database in terms of citation counts and coverage. As a result, data in this study is drawn from the Dimensions database.

3.3.2 Search Strings

The population was used to generate search strings. The population is the current knowledge base on green entrepreneurship as a strategy in pursuit of environmental commitment and eco-innovation within the corpus of literature. Keywords utilized comprised green entrepreneurship and climate change. Such keywords were linked with Boolean operators “AND” and “OR” to develop appropriate search phrases and terms, which were then utilized to extract useful publications from databases.

| Keywords | Boolean Operators | Search phrases/terms |
|--|-------------------|--|
| Green entrepreneurship Climate change Environmental entrepreneurship | AND OR | “green entrepreneurship AND climate change OR environmental entrepreneurship AND climate change” “green entrepreneurship AND climate change OR environmental entrepreneurship AND climate change” |

The literature search was conducted on the 8th of January 2023 using the search string, “green entrepreneurship AND climate change OR environmental entrepreneurship AND climate change”, based on full data. The search yielded 23,272 results.

3.3.3 Exclusion and Inclusion Criteria

According to Patino and Ferreira (2018), identifying criteria for accepting and excluding data sources is useful in setting a benchmark for harmonizing studies with high-quality procedures. Furthermore, Connelly (2020) proposes that considering the chance of having comprehensive and massive datasets, the utilization of inclusion and exclusion criteria supports enabling restrictive elements that reduce the

sources accepted for analysis. As a result, the important characteristics that qualified or excluded the data sources are highlighted in the Table below:

| Inclusion criteria | Exclusion criteria |
|--|---|
| Bibliometric analysis | |
| Only publications released from 2018 to 2023 were considered for inclusion. | Publications released prior to 2018 were considered for exclusion. |
| For the convenience of understanding, the study considered only articles written in English. | Articles written in other languages were considered for exclusion from the study. |
| This research covers material on green entrepreneurship | Any material that focused on other topics was excluded. |
| The investigation relied on peer-reviewed published papers by credible publishers. | The investigation excluded material that was not peer-reviewed, like blogs and newspapers. |
| Thematic analysis | |
| Articles with the following keywords in the Title, Abstract, or Full text: green entrepreneurship, climate change, international business climate change | Articles which do not have the following keywords in the Title, Abstract, or Full text: green entrepreneurship, climate change, international business climate change |

3.4 Analysis Strategy

3.4.1 Bibliometric Analysis and VOS Viewer

According to Qiang et al. (2022), the two most common visualization tools are VOSviewer and CiteSpace. A significant portion of the features of the two programs are shared. Regarding bibliometric cases and technical evaluation, Markscheffel and Schröter (2021) compared CiteSpace to VOSviewer, revealing VOSviewer's exceptionalism by being more user-friendly and clearer. CiteSpace, on the other hand, had advantages in network visualizations, resulting in better cluster node analysis using Cluster Explorer.

Articles from Dimensions were imported into VOSviewer for bibliometric analysis and visualization. The VOSviewer can generate publication maps, journal maps, country maps, and keywords. The bibliometric analysis was conducted on the 23,272 documents.

3.4.2 Thematic Analysis

Thematic analysis is a technique for examining qualitative data and involves going through the documents to identify, evaluate, and reveal recurring patterns (Nowell et al., 2017). The thematic analysis enables the investigator to view and draw a sense of common meaning among items in data. The main aim of thematic analysis is not just to pinpoint particular and peculiar meanings and ideas that can only be discovered inside a single piece of information (Nowell et al., 2017; Sandelowski, 2010).

The strategy is to determine the common idea or meaning shared among pieces of information. Commonality, however, does not always imply significance or importance in itself. The derived meaning should be relevant to the research question being addressed. Based on 25 documents selected using the exclusion and inclusion criteria, a thematic analysis was conducted to derive a common meaning of how green entrepreneurship among international businesses can contribute to Sustainable Development Goals, common green entrepreneurial practices to facilitate the formulation of policies and possible future research agenda.

4 Results and Discussion

4.1 Distribution of Articles by Output and by Academic Impact

(Output, Citations, Publications with citations, and Field Citation Ratio (FCR))

This section presents results addressing the question of articles' distribution by output and academic impact.

4.1.1 Output

Publications output on green entrepreneurship and its implications for climate change in Africa existing in Dimensions have increased over the years. The number of publications in Dimensions for 2018 was 3449, and a steady increase led to an output of 4440 in 2020 before reaching 6025 publications in 2022.

Since 2015, research output on green finance has steadily grown. This trend indicates that scientific researchers have become increasingly interested in green entrepreneurship. This expansion reflects scholars' heightened interest in learning about green entrepreneurship as a response to climate change. This growth can be ascribed to growing worldwide sustainability efforts. These findings are consistent with those of comparable research conducted by Akomea-Frimpong et al. (2022), which discovered an increasing trend in the scholarly scientific output of green entrepreneurship publications beginning in 2017.

4.1.2 Citations

The academic impact of literature on green entrepreneurship and its implications for climate change in Africa has also increased, especially in the years covered by the study from 2018 to 2023. In 2018, citations were three and increased to 82 in 2017. However, the increase from 2018 was tremendous, registering an improvement from 2157 to 10,895.

The increase in the academic impact of literature on green entrepreneurship and its implications for climate change in Africa shows the increasing interest in the field and its importance in the development discourse.

4.2 Top Journals that Have Published the 100 Most Cited Articles on Green Entrepreneurship and Its Implications for Climate Change in Africa

This section answers the question on the top journals that have published the 100 most cited articles on green entrepreneurship and its implications for climate change in Africa (source titles in Dimensions).

Top ten journals that contribute the most to the body of knowledge.

Table 1 shows that top journals are some of the major literature sources on the topic under study. Sustainability is the journal topping the list of major sources with an output of 1099 publications with 18,328 citations. Closely following Sustainability, the Tobacco Induced Diseases Journal is second with 957 publications. After these two journals, the other sources contribute publications which are at most 500.

4.3 The Intellectual Structure of Knowledge on Green Entrepreneurship and Its Implications for Climate Change in Africa (Co-authorship and Citation Network Analysis As Well As Countries and Institutions Dominating)

This section presents results based on the question of the intellectual structure of knowledge on green entrepreneurship and its implications for climate change in

Table 1 Top ten sources of literature in dimensions

| Name | Publications | Citations | Citations(mean) |
|---|--------------|-----------|-----------------|
| Sustainability | 1099 | 18,328 | 16.68 |
| Tobacco Induced Diseases | 957 | 245 | 0.26 |
| Journal of Cleaner Production | 439 | 9056 | 20.63 |
| Environmental Science and Pollution Research | 348 | 4828 | 13.87 |
| Technological Forecasting and Social Change | 278 | 8303 | 29.87 |
| Business Strategy and the Environment | 272 | 5210 | 19.15 |
| Journal of Business Research | 188 | 3180 | 16.91 |
| Frontiers in Psychology | 185 | 478 | 2.58 |
| International Journal of Environmental Research | 183 | 1450 | 7.92 |
| Energy Research & Social science | 171 | 4128 | 24.14 |

Source: Compiled by Researchers

Table 2 Top authors and organizations

| Name | Organization and country | Publications | Citations | Citations mean |
|-----------------------------|--|--------------|-----------|----------------|
| Colin Michael Hall | University of Canterbury, New Zealand | 43 | 3239 | 75.33 |
| Dirk L R De Clercq | Brock University, Canada | 36 | 481 | 13.36 |
| Geoffrey T Fong | University of Waterloo, Canada | 30 | 16 | 0.53 |
| Simplice Anutechia Asongu | African Governance and Development Institute, Cameroon | 27 | 930 | 34.44 |
| Sascha Kraus | Free University of Bozen-Bolzano, Italy | 26 | 1201 | 46.19 |
| Joao Jose De Matos Ferreira | University of Beira Interior, Portugal | 26 | 499 | 19.19 |
| Benjamin Kenneth Sovacool | University of Sussex, United Kingdom | 26 | 2310 | 88.85 |
| Nancy M P Bocken | Maastricht University, Netherlands | 22 | 1168 | 53.09 |
| Muhammad Irfan | Beijing Institute of Technology, China | 21 | 541 | 25.76 |
| Abdullah-Al-Mamun | National University of Malaysia, Malaysia | 21 | 263 | 12.52 |

Source: Compiled by Researchers

Africa (co-authorship and citation network analysis); countries and institutions dominating.

4.3.1 Top Authors and Organizations

Colin Michael Hall from New Zealand tops the list of authors in the literature on green entrepreneurship and its implications for climate change with 43 publications. Dirk Clercq and Geoffrey T. Fong follow in the list with 36 and 30, respectively (Table 2).

4.3.2 Co-authorship

Releasing publications into peer-reviewed journals has traditionally been necessary for incentives and promotions for university researchers and some authors in research institutions. Engaging in scientific partnerships and co-authorship improves the number of studies in which an author participates and their publishing chances. This rise is shown in disciplines of study that prioritize collaborative research, such as public health. Not all collective actions result in published publications;

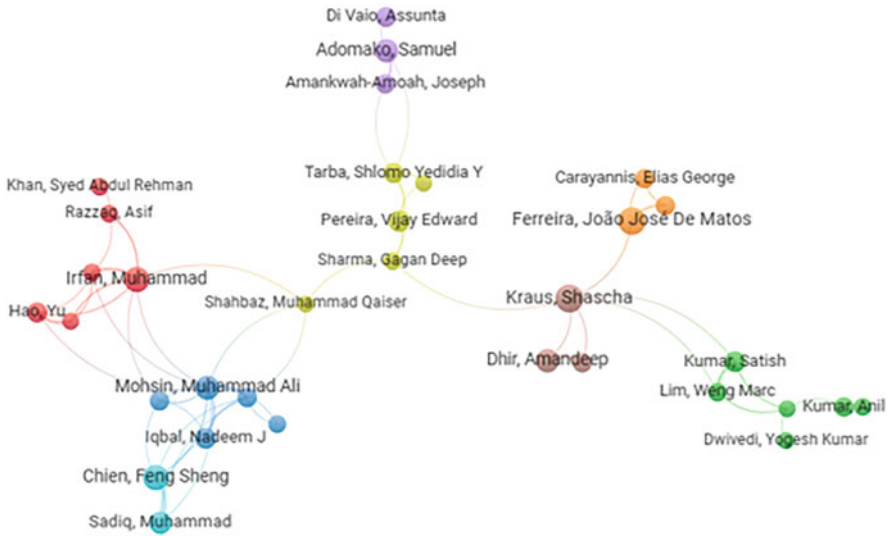


Fig. 1 Co-authorship

nonetheless, article co-authorship is a recognized indicator of scientific collaboration and the collective influence of organizational success (Fonseca et al., 2016) (Fig. 1).

Researchers discovered that the degree of co-authorships might be significantly raised, but African researchers must be roped in since they are underrepresented. Furthermore, we identified certain significant writers inside the network that have the potential to enhance collaborative actions among members of the network. Our findings support the advice that the existing researchers topping in research collaboration be encouraged to increase their efforts in fostering teamwork among their networks and peers.

4.3.3 Citation Analysis

Citation analysis counts the instances in which a certain author, piece of writing, or magazine has been referenced in other works to determine the relative relevance or effect of each. The following encompasses the purposes of conducting citation analysis: (1) To determine the influence of a certain work by determining which other writers based their studies on it or mentioned it in their publications; (2) To better understand a discipline or issue by recognizing significant works in that field; (3) To measure the effect of a certain author inside his or her domain and beyond, examine the overall citation count disaggregated by field and nation. (4) Considering the calibre of the sources from which a scholar's output was published and quoted is important for tenure purposes and promotions.

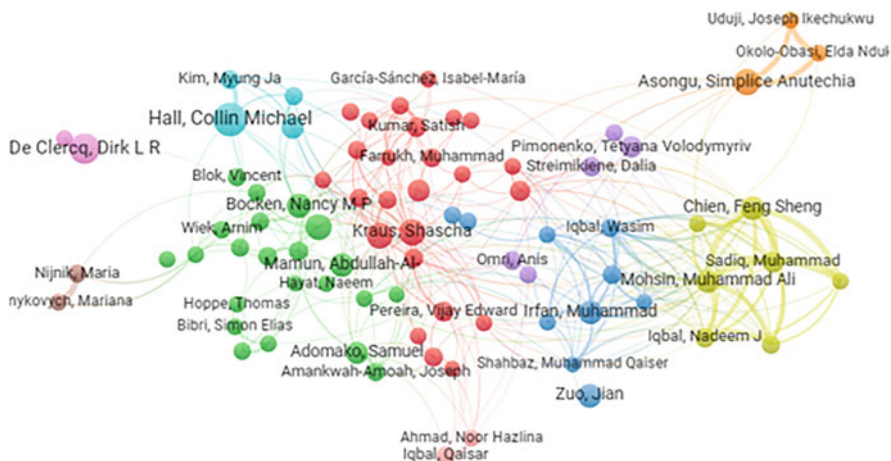


Fig. 2 Citations

Various citation analysis resources are available, some needing a membership, whereas others are open. Each instrument has advantages and disadvantages, but none encompasses the world of scholarly papers. As a result, it is critical to employ many tools in order to obtain a more complete view of the researcher's or journal's scholarly effect (Fig. 2).

4.4 Major Themes/Key Concepts that Have Been Explored and How Are They Related

4.4.1 Themes According to Research Categories

This section provides findings on the themes/key concepts explored and their relation. The dominant themes in the research corpus on green entrepreneurship and its implications on climate change include commerce, management and tourism; human society; engineering; economics; environmental sciences, and built environment and design. On the other hand, creative arts and writing, mathematical sciences, law and legal studies, education, and agricultural, veterinary and food sciences are themes that are underrepresented in the research corpus on green entrepreneurship and its implications on climate change.

4.4.2 Themes According to SDGs

Themes within the research corpus on green entrepreneurship and its implications on climate change can be depicted along the SDGs lines.

The dominant themes in the research corpus on the topic under study are aligned to the following SDGs: affordable and clean energy, climate action, responsible consumption and production, sustainable cities and communities, good health and well-being, industry, innovation and infrastructure. However, themes that are under-researched are aligned with the following SDGs: peace, justice and strong institutions, reduced inequalities, gender equality, no poverty, life below water, clean water and sanitation, as well as partnerships for the goals (Giuliana & Chiappini, 2021; Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016).

4.4.3 Green Entrepreneurship and SDGs

Green business owners will play a significant role in the business ecosystem by deploying more environmentally friendly production techniques and promoting green consumers' sustainable purchase habits (Saari & Joensuu-Salo, 2019). The advancement of energy and resource efficiency and green infrastructure are crucial for sustainable production and consumption. With the support of green entrepreneurship, a rise in Gross Domestic Product will be achieved in a way that lowers social and environmental burdens and increases economic competitiveness based on sustainable standards, including social and environmental considerations alongside financial sustainability. As a result, the growth in green entrepreneurship would also contribute to creating more environmentally friendly and sustainable businesses and better working conditions for employees.

Sustainable production and consumption aim to achieve more with less effort and better results. Using resources sparingly makes production processes and finished goods less degrading and polluting throughout their life cycles. Also, consumers need access to reliable information about the products and their manufacture that promotes sustainable consumption habits and lifestyle decisions (Saari & Joensuu-Salo, 2019). Businesses and the economic environment should adjust to the circumstances to prevent consumption and production from causing long-term environmental damage due to the expanding global population and higher demand for goods manufactured from limited natural resources.

By using a green entrepreneurial approach, businesses can support discoveries and product designs that encourage and support end users' goals to live more sustainably and so lessen the environmental effect of their consumption (Giuliana & Chiappini, 2021; Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016). Green business owners are more driven to create sustainable alternatives than traditional business owners. Green business owners are motivated by a sustainable mentality to examine the effects of their operations and develop better solutions that consider the societal and environmental effects of their goods and services throughout their life cycles. They are prepared to address the problems with the biggest negative effects and where there is the greatest opportunity to enhance the entire life span of their goods and services.

4.5 *Common Environmental Commitment and Eco-innovation Practices Among International Businesses*

4.5.1 Creative Green Entrepreneurial Practices Among International Businesses

Similarly to this, Zhaojun et al. (2017) suggest that green entrepreneurs have a proclivity to evaluate a wide range of options because of their adaptability and flexibility, both of which are products of creativity, commonly resulting in improved ideas to societal challenges.

Similarly, according to Yousuf et al. (2017), green entrepreneurs are creative thinkers who can protect the social environment from environmental threats. Entrepreneurs gain from opportunities in the green market for sustainability due to their flexibility to start at any level. Malavisi (2018) claims that green business entrepreneurs use their unique and creative skills to implement modern green business methods.

In the interest of reducing global environmental concerns, Dale (2019) makes a case for green innovation, which he defines from a green entrepreneurship perspective as a revolutionary solution to the current environmental and socioeconomic hurdles. Hence, creative entrepreneurship is simply the planned application of skills and other means (both technical and human) in order to address socioeconomic concerns through morally upstanding products and services that provide owners with a sense of purpose and financial rewards.

4.5.2 Greenwashing and Green International Businesses

Some deceptive companies manipulate unsuspecting clients into believing that they are concerned about environmental difficulties in their business operations by using hyperbolic phrases like “eco”, “bio”, and “organic”, as well as “green” sustainability. Businesses have been recognized to deliberately engage in “greenwashing”, which is the practice of misleading customers through marketing initiatives (Junior et al., 2016; Consoli et al., 2016).

As a result, the extensive utilization of deceptive green messaging to gain market acceptability demonstrates that companies now know that their clients care about diversity and the ecosystem. Despite these marketing gimmicks, customers normally discover trustworthy eco-friendly firms they decide to support long-term. Consumers are now more fully conscious than ever of the negative effects of entrepreneurship on someone’s socio-environmental wellness, according to Dale (2019); therefore, they are starting to think about each company’s and company’s pro-environmental behaviours before making real purchasing decisions. Suppose businesses at all levels have differing views on a strategy to be committed to going green. In that case, the common wish for an egalitarian and reasonable society may continue to exist just as

a wish (Bannamar & Gressel, 2015). Therefore, companies that wanted to retain their customers had to do more than develop and market environmentally friendly products and services; they also had to convince customers that they truly believe in going green and support green initiatives vehemently in their quest for sustainability practices.

However, once the business has established a green status, which tends to compensate for any initial cost invested generously, this price would be justified in the long run. For instance, according to Tee et al. (2017), a business should not see environmental campaigning as an added burden before using greenwashing. According to their analysis, the authors assert that there are undeniably much bigger long-term benefits to having a green image, so the short-term costs of adopting ecologically conscious behaviour must be higher.

In particular, with respect, “greenwashing” might be regarded as “economic fraud” because every company that partakes in it would theoretically ignore its environmental commitments due to the false belief that it is not necessary to pay for being environmentally friendly or responsible (Giuliana & Chiappini, 2021; Harzing, 2019; He & Liu, 2018; Hörisch et al., 2017; Jones & Gettinger, 2016). Green public image is one of the effective marketing methods of the contemporary day. As a result, more items are being packaged to give the impression that they are truly ecologically benign or at least superior to those of their competitors, whose own products are known to be destructive to the environment.

The public will eventually recognize and support the actual pro-environmental enterprises, although some purportedly green businesses involved in greenwashing oversold their environmental advantages through publicity stunts, according to Junior et al. (2016). As a result, after the public learns the truth about the numbers and eco-friendly business products gain popularity, the former may eventually leave the market. Green washers would do well to learn from the proverb, “He who lives with a sword shall end up perishing with a sword”, as they will eventually come to regret their hypocrisy (Demuth, 2014; Frydrych, 2021).

Greenwashing is an immoral marketing technique that will eventually come to light to expose many who engage in it. Moreover, there is less commitment to ecologically beneficial behaviours the more money is spent on bogus green product promotion (Mrkajic et al., 2019; Yousuf et al., 2017). Nevertheless, organizations may progressively migrate away from business as usual if they continuously make promises about sustainability in their products, services, or brand awareness to attract customers. This unfulfilled promise is because greenwashing serves as a strategy to raise society’s awareness of environmental problems.

5 Recommendation

5.1 Business Sector

For international businesses to acquire legitimacy according to the legitimacy theory, to consider the needs of the wider community as a stakeholder within the business

environment as per the multi-stakeholder theory as well as to exploit knowledge spill-over effects from seasoned international businesses, there is an increased need to promote good end user lifestyles, safety, and health aspirations (Saari & Joensuu-Salo, 2019).

There is a dire need for international businesses to pursue eco-services like ecotourism. These services ensure that the natural environment is preserved and species that are in danger are protected. The active involvement of local communities is achieving the provision of services that balance economic aspirations, environmental concerns, and societal values and norms.

Due to increased demand, green products like electric cars and natural foods are now attracting higher prices. By focusing on products that are believed to be friendly to the environment and the people, an international business can secure customer loyalty, resulting in sustainable business operations (Saari & Joensuu-Salo, 2019).

5.2 Government

Countries should evaluate whether voluntary action or legal requirements can more effectively take international businesses on board regarding environmental sustainability. Indeed, some businesses have come to understand that successful climate change management would be advantageous to them and can voluntarily commit to counter the threat in light of these evident measures.

However, in such circumstances, a good-willed business, such as an MNC, would be prepared to contribute to aiding in the fight against climate change. However, the firm cannot uphold its moral commitment because it lacks compelling legislation to make trade-offs. Enhancing the policy frameworks to encourage international businesses becomes crucial in such cases.

5.3 Academics

In light of the findings of this study, universities and research funders must promote African researchers in green entrepreneurship and its implications on climate change. This increased participation will improve African authors' output and academic impact in green entrepreneurship. Our findings support the advice that the existing researchers topping in research collaboration be encouraged to increase their efforts in fostering teamwork among their networks and peers, especially African counterparts.

The future research agenda should focus on the following themes and their role within green entrepreneurship and climate change: creative arts and writing, mathematical sciences, law and legal studies, education, and agricultural, veterinary and food sciences. In addition, themes that include peace, justice and strong institutions, reduced inequalities, gender equality, no poverty, life below water, clean water and

sanitation, as well as partnerships for the SDGs goals are potential areas of research that, if explored, the body of knowledge can be enhanced and gaps covered.

6 Conclusion

The chapter's main goal was to explore the research corpus on green entrepreneurship as environmental commitment and eco-innovation by international businesses. The chapter attempted to reveal the bibliometric characteristics of the research corpus on green entrepreneurship as environmental commitment and eco-innovation among international businesses, to extract the major themes/key concepts that have been explored and how they are related and to expose the major green activities done as environmental commitment and eco-innovation practices among international Businesses. The chapter identified legitimacy theory, multi-stakeholder theory, and knowledge spill-over theory as explanations of why international businesses may pursue green entrepreneurship.

In order to address the research questions, bibliometric analysis and thematic analysis were adopted. Firstly, bibliometric analysis was conducted, using VOSviewer, on the 23,272 documents searched in the Dimensions database. Secondly, a thematic analysis was conducted based on 25 documents selected using the exclusion and inclusion criteria. The thematic analysis aimed to derive a common meaning of how green entrepreneurship among international businesses can contribute to Sustainable Development Goals and common green entrepreneurial practices to facilitate policy formulation and possible future research agenda.

Bibliometric analysis revealed that throughout time, particularly over the study's period of 2018 to 2023, the academic influence of publications on green entrepreneurship has increased. Researchers found that the number of co-authorships might be greatly increased, but they must be included because African scholars are underrepresented. The main themes explored in the research corpus on green entrepreneurship as environmental commitment and eco-innovation by international businesses within the corpus of literature include commerce, management and tourism; human society; engineering; economics; environmental sciences and built environment and design. On the other hand, creative arts and writing, mathematical sciences, law and legal studies, education, and agricultural, veterinary and food sciences are themes that are underrepresented in the research corpus on green entrepreneurship and its implications on climate change. The dominant themes in the research corpus on the topic under study are aligned to the following SDGs: affordable and clean energy, climate action, responsible consumption and production, sustainable cities and communities, good health and well-being, industry, innovation and infrastructure. However, themes that are under-researched are aligned with the following SDGs: peace, justice and strong institutions, reduced inequalities, gender equality, no poverty, life below water, clean water and sanitation, as well as partnerships for the goals. Additionally, developing countries,

especially in Africa, are underrepresented in publications output over the years within the corpus of research on the topic under study.

Additionally, they were identified through thematic analysis as common practices among international businesses. Creative green business involves using strategies based on innovative and creative abilities. Thus, international businesses are using innovative entrepreneurship, which is just the coordinated use of talents and other resources (both human and technical) to address socioeconomic issues through ethical goods and services that give owners a feeling of fulfilment and financial benefits. On the other hand, some dishonest businesses utilize hyperbolic terms like “bio”, “eco”, “organic”, and “green” sustainability to mislead gullible customers into thinking that these businesses are mindful of the environmental issues in their company operations. This dishonest behaviour is termed greenwashing.

In order to avoid the negative effects of greenwashing, international businesses are encouraged to pursue eco-services like ecotourism. In addition, international businesses should focus on green products like electric cars and natural foods, which are now attracting higher prices due to increased demand. Governments also have a role to play in promoting green entrepreneurship. Governments should evaluate whether voluntary action or legal requirements can more effectively take international businesses on board regarding environmental sustainability. It is important to pursue a policy that is suited to the country’s context.

Consequently, the future research agenda should focus on the themes and their role in green entrepreneurship and climate change: creative arts and writing, mathematical sciences, law and legal studies, education, and agricultural, veterinary and food sciences. In addition, themes that include peace, justice and strong institutions, reduced inequalities, gender equality, no poverty, life below water, clean water and sanitation, as well as partnerships for the SDGs, are potential areas of research that, if explored, the body of knowledge can be enhanced and gaps covered.

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Exploring Circular Economy in International Businesses Through the Lens of Sustainability



Anushka Lydia Issac 

Abstract While the world's population continues to grow expeditiously, a rapid increase in the demand of raw materials and a simultaneous decrease in supplies is evident. Government collaboration with International Businesses, decentralized authorities, and civil society is crucial for transitioning the global economy to rely predominantly on reusable materials by 2050. If implemented right, the Circular Economy holds the potential to preserve the endangered environment, boost social equity, and foster sustainable economic progress. This chapter is a conceptual discussion that explores the extent of the Circular Economy's contribution towards International Business and in turn the potential contribution of this mix towards the promotion of SDGs, to better comprehend the conditions promoting or impeding the SDGs' fulfillment. The chapter also aims at identifying critical opportunities and challenges for International Business in adopting and implementing the Circular Economy and providing recommendations for better implementation. The chapter describes the essential foundations of the Circular Economy and aims at assessing its most significant influence in achieving the sustainable development goals laid out by the UN Charter. The chapter is useful to academics and researchers in the fields of international political economy, economics, and sociology, in addition to policymakers and experts in the field of sustainability.

1 Introduction

1.1 *Defining the Circular Economy*

Scientific literature and professional journals over time have coined more than 100 different definitions of Circular Economy and this diversity of definitions has made the measurement of circularity more complicated (Kirchherr et al., 2017). First made popular by Kate Raworth's work on Doughnut Economics, the Circular

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Economy model is established over a rather simple postulation: ensuring that resources stay in the loop for a longer period of time reduces greenhouse gas emissions and curtails dependency on fossil resources and waste production (Laura Puttkamer, 2022). Evidence in literature (Andersen, 2007; Ghisellini et al., 2016; Su et al., 2013) attributes the coining of the term and concept to (Pearce & Turner, 1989).

The Circular Economic System includes practices like reducing, reusing, recycling, and recovering (Kristensen & Mosgaard, 2020) in contrast to the existing traditional economies. While the Circular Economy might sound like a novel approach, its roots stem from older schools of thought, such as Industrial Ecology (Graedel, 1994; Lifset & Graedel, 2002), Biomimicry (Janine M Benyus, 2002), Natural Capitalism (Lovins et al., 1999), Cradle-to-Cradle (McDonough & Braungart, 2010), Performance Economy (Stahel, 2010), and others.

While the global population continues to grow, the demand for raw materials simply escalates, however the supply of crucial raw materials remains limited. A resource deficiency indicates an increased depending on each other at the country-level. The Circular Economy defined as a model of production and consumption involving the sharing, leasing, reusing, repairing, refurbishing, and recycling of existing materials and products offers a fresh perspective towards ensuring that the life cycle of products remain extended (European Parliament, 2022).

The World Economic Forum defines Circular Economy as an industrial system that by the nature of its intention and design is restorative or regenerative. Circular Economy is said to replace the end-of-life concept with restoration, creating a shift towards the use of renewable energy, eliminating the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems, and business models (Victoria Masterson, 2022).

The Ellen MacArthur Foundation defines the aim of Circular Economy to be that of redefining growth, focusing on positive society-wide benefits. Circular Economy is believed to entail gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system (Ellen MacArthur Foundation, 2022).

The International Encyclopedia of Human Geography (Deutz, 2020) describes Circular Economy as an economic system designed with the intention to utilize the extracted resources to the maximum potential and generate as minimal waste as possible.

According to the Circular Economy Action Plan published by the European Commission (2020), the circular economy is defined as an economic system that aims to keep resources in use for as long as possible and minimize waste. This involves moving away from the traditional linear “take-make-use-dispose” model of production and consumption, and instead designing products and systems to be regenerative and restorative. The applicability of the circular economy is broad and includes a range of sectors, such as manufacturing, construction, energy, food, and textiles. The circular economy framework emphasizes the importance of creating closed-loop systems where products and materials are reused, repaired, or recycled, rather than being disposed of as waste. This can involve strategies such

as designing products for disassembly, using recycled materials, or implementing innovative business models such as product-as-a-service.

1.2 Putting Circular Economy in Practice

Within a Circular Economy, products are designed to be reusable, such as an electrical device that is designed in a way that makes it easier to repair. It is also encouraged to use products and raw materials as much as possible, like the recycling of plastic into pellets for the production of new plastic products. For products that are not used often like drills and cars, the Circular Economy supports an intensive use by sharing them with others. This would in turn mean that fewer products are created, and hence fewer raw materials are required. The Circular Economy also demands a responsible treatment of the environment by preventing litter on streets or banning free plastic bags (Government of the Netherlands, 2022).

Environmental challenges such as climate change, biodiversity loss, and pollution require urgent action. By exploring the Circular Economy in international businesses through the lens of Sustainability, one can identify ways to reduce waste, increase resource efficiency, and minimize negative environmental impacts. Sustainability is not only about environmental protection but also about social equity. The Circular Economy can contribute to social equity by creating jobs and economic opportunities, reducing inequality, and improving the quality of life for communities. Understanding Circular Economy through Sustainability can ensure that social equity is a central consideration in the transition to a more sustainable economy. The Circular Economy can also contribute to economic growth by creating new markets, reducing costs, and improving resource efficiency. By comprehending the Circular Economy through Sustainability, one can ensure that economic growth is achieved in a way that is environmentally and socially responsible. This, however, requires collaboration between different fields, including economics, engineering, and social sciences. This interdisciplinary approach can lead to more innovative solutions that address the complex challenges of sustainability. The Circular Economy offers a new way of thinking about the economy, one that is based on regenerating natural systems and using resources efficiently. However, for this model to be successful, it needs to be integrated into a broader framework of sustainability that considers social, economic, and environmental dimensions. By exploring the Circular Economy in the international business sphere through the lens of Sustainability, one can ensure that a long-term perspective and building a sustainable future for all is being considered.

1.3 Conceptual Framework

The Circular Economy and sustainability are two concepts that have gained increasing attention in recent years, as the world grapples with the challenges of resource

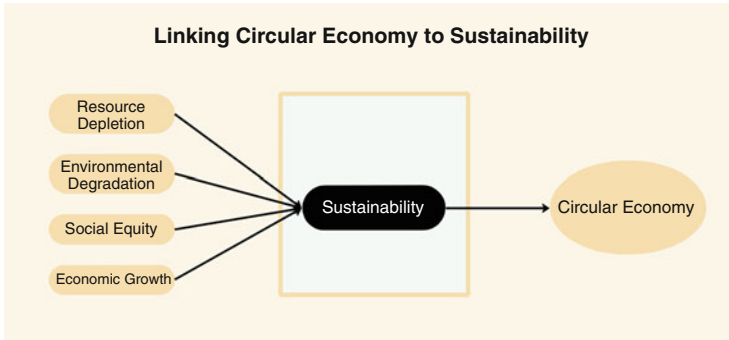


Fig. 1 Conceptual framework linking circular economy to sustainability

depletion, climate change, and environmental degradation. The Circular Economy is a model of economic development that is based on the principles of designing out waste, keeping materials and resources in use, and regenerating natural systems. Sustainability, on the other hand, is a broader concept that encompasses environmental, social, and economic dimensions, and seeks to ensure that present and future generations can meet their needs without compromising the ability of the planet to sustain life as indicated in Fig. 1.

The need to link the Circular Economy with sustainability arises from several factors:

The linear economy model, which is based on the “take-make-dispose” approach, is no longer viable in a world of finite resources. The Circular Economy offers a solution to the problem of resource depletion by promoting the efficient use of resources, reducing waste, and extending the life of products and materials.

The current linear economy model is also a major contributor to environmental degradation, including air and water pollution, deforestation, and greenhouse gas emissions. The Circular Economy can help to reduce environmental impacts by promoting the use of renewable energy, reducing emissions, and minimizing waste and pollution.

Sustainability is not only about environmental protection but also about social equity. The Circular Economy can contribute to social equity by creating jobs and economic opportunities, reducing inequality, and improving the quality of life for communities.

The Circular Economy can also contribute to economic growth by creating new markets, reducing costs, and improving resource efficiency. By linking Circular Economy with sustainability, one can ensure that economic growth is achieved in a way that is environmentally and socially responsible.

The need to link Circular Economy with sustainability is driven by the urgent need to address resource depletion, environmental degradation, social equity, and economic growth in a way that is sustainable over the long term. By promoting the efficient use of resources, reducing waste and pollution, and improving social equity, a more sustainable future for all is created. Resource depletion, environmental

degradation, social equity, and economic growth are negatively correlated to Circular Economy, while Sustainability mediates the relationship between these independent factors and Circular Economy.

The conceptual framework suggests that the need to link Circular Economy with sustainability arises from the negative impact of the current linear economy model on resource depletion, environmental degradation, social equity, and economic growth. By linking the Circular Economy with sustainability, it is possible to achieve a more sustainable future that is socially and environmentally responsible while promoting economic growth.

2 The Inter-Link and Variance Between Circular Economy, Sustainability, and the SDGs

2.1 The 3 Pillars of Sustainability

Extensive literature has established three prime and interlinked pillars of Sustainability, namely—Economic, Social, and Environmental. Having first appeared as a three circles diagram (Barbier, 1987), the “3 pillars of sustainability” or also alternatively referred to as the “Triple Bottom Line,” some origins of the paradigm also date back to the Brundtland Report, Agenda 21, and the 2002 World Summit on Sustainable Development (Moldan et al., 2012). However, recently Elkington chose to “recall” the 3BL in order to rethink capitalism (Elkington, 2018) stemming from the fact that the paradigm had been reduced to a mere accounting tool, a means to balance trade-offs instead of changing the way the society and business functions, as opposed to the original hypothesis that presented the triple bottom line as a sustainability framework that assesses an organization’s social, environment, and economic impact (...) encouraging organizations to track and manage economic value that is not limited to financial aspects alone, social, and environmental value added or destroyed (Kraaijenbrink, 2019).

2.1.1 Social Sustainability

This aspect encompasses various social elements of society including but not limited to environmental justice, human health, resource security, and education, urban regeneration, community development, cultural diversity, workforce development, social justice and equality, human rights, globalization, consumerism, and ethical trade. While the paradigm includes economic and environmental benefits, from an international business perspective, measures to initiate social sustainability could comprise focused efforts towards employee retention, thereby improving employee motivation instead of merely prioritizing economic benefits (Morais & Silvestre, 2018; Vega Mejía et al., 2018). International organizations that adopt and implement

sustainability are likely to have a positive impact on customers and communities as well, in a number of ways. By implementing sustainability, businesses can contribute to poverty reduction, increased access to education and healthcare, and improved gender equality. This can have a significant impact on the well-being of communities and can help to create a more equitable and just society. Secondly, as consumers become more aware of the impact of businesses on society and the environment, they are increasingly looking for companies that share their values and beliefs. By demonstrating a commitment to social sustainability, businesses can build trust with customers and differentiate themselves from competitors. Sustainability provides a framework for businesses to identify new opportunities for sustainable development and to work together with other stakeholders to create shared value. By collaborating with customers, suppliers, and other stakeholders, businesses can develop new solutions to complex sustainability challenges and drive positive change. Ultimately, by prioritizing social sustainability, businesses can create shared value and contribute to a more equitable and just society.

2.1.2 Economic Sustainability

This factor of the paradigm includes job creation, profitability, and proper accounting of ecosystem services for ideal cost–benefit analysis. Research at the job market indicates high rates of employment aiding both the economy and the employee well-being (Malik et al., 2021). Measures taken to ensure environmental sustainability also lead to economic sustainability of the organization. For instance, recycling valuable materials, such as electronic waste and textile waste, can reduce operating costs and lower the intensity of resource extraction essential to endure business continuity (Xavier et al., 2021; Nunes et al., 2018).

2.1.3 Environmental Sustainability

The environmental sustainability aspect is anchored on environmental well-being including water quality, air quality, and reduction of environmental stressors, such as greenhouse gas emissions. Human health is also dependent on the quality of an individual's environment, inevitably linking human health and the environment and thereby the attempts to preserve and restore the environment help people as well (Krausmann et al., 2018). Natural resources provided by the environment help foster economic sustainability, and organizations relying on the extraction of natural resources can be economically sustainable (Vandyck et al., 2018). In order to transform into a sustainable society, contribution towards the following should be controlled through scientific advances such as enzymatic or catalytic plastic recycling (Tulloch & Neilson, 2014).

2.2 *Circular Economy and SDGs*

The 2030 development agenda (United Nations, 2015) adopted by the United Nations indicated 17 sustainable development goals (SDGs) interlinked with 169 sub-targets that were in turn structured around five pillars (5Ps)—people, planet, prosperity, peace, and partnership. While the first pillar (People) aims at eradicating poverty and hunger, the second pillar (Planet) outlines an agenda to preserve the planet from degradation. The third pillar (Prosperity) aims to establish a prosperous and fulfilling lives for all humans; the fourth pillar (Peace) strives to manifest peaceful, just, and inclusive societies; the fifth pillar (Partnership) helps to create a network in order to mobilize the implementation of this agenda (Khajuria et al., 2022)—all of this is done with the intention to shift the world into a sustainable perspective and resilient development path while leaving no man behind.

Existing literature identifying the relevance and implementation of Circular Economy practices towards Sustainable Development Goals, suggests a powerful synergism between Circular Economy practices and SDG targets. These are said to exist largely lie across SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG12 (Responsible Consumption and Production), and SDG 15 (Life on Land), contributing to highest numbers (Schroeder et al., 2019).

It is estimated that by 2030, a transition towards Circular Economy could reduce net resource spending in the European Union (EU) by 600 billion euros annually, improve resource productivity by up to 3% annually, and generate an annual net benefit of 1.8 trillion euros (Ellen Macarthur Foundation, 2015). Rightly so, the Circular Economy is seen as a potential means to pursue increased Sustainable Development (Geissdoerfer et al., 2018).

Various perspectives of Circular Economy are presented via academic literature. While on end it is contrasted against environmental sciences and Sustainable Development, with CE offering a relatively clear “angle of attack” to tackle environmental problems (Sauvé et al., 2016), another study places it across three categories: One that is conditional—(CE as a condition for SD), one that beneficial—(CE benefits SD), and one as a trade-off—(CE having both positive and a negative sustainability impact) relationship (Geissdoerfer et al., 2017).

While the academic discussion connecting Circular Economy to sustainability remains active, the contribution of organizations within the Circular Economy seems disregarded in literature related to Circular Economy. However, this contribution carries the potential insights towards solving current sustainability problems through the real-world impacts of firms’ CE solutions.

The advancement and application of Circular Economy as a positive tool of influence towards all three dimensions of sustainability of an organization, is popularized by the Triple Bottom Line (TBL) concept (Cannibals with Forks: The Triple Bottom Line of 21st Century Business, 1999).

2.3 *Understanding How Sustainability Differs from Circular Economy*

While circularity and sustainability are terms that are being used in conjunction and somewhat interchangeably, a Circular Economy does not necessarily translate to sustainability.

It is estimated that there are about 300 definitions to Sustainability (Johnston et al., 2007). Sustainability is defined to be more of a systems-level approach that like an umbrella garners a wide array of environmental, social, and economic factors and gauges their interaction and in theory cannot be sustainable in isolation (Rachel Meidl, 2021). Forbes (Rachel Meidl, 2021) declares sustainability to be a feature of a system in its entirety and not a singular focus on any individual part. The practice of circularity, on the other hand, is concentrated to support the conversion of raw materials for human consumption (The U.S. Chamber of Commerce Foundation, 2022).

The Circular Economy is assumed to carry with it the potential to disrupt the current linear economy of unsustainable production, consumption, and waste generation through system innovation that designs out waste, expands resource efficiency, keeps materials in use, and secernates growth from the consumption of finite resources, thereby achieving a healthier balance between the economy, the environment, and society. Circular Economy is also presumed to be resilient against future disruptions such as pandemics, extreme and punctuated weather events, or the impacts of a changing climate (Rachel Meidl, 2021).

While sustainability targets the larger benefits of the environment, the economy, and society (Cannibals with Forks: The Triple Bottom Line of 21st Century Business, 1999) and has a broader framing (Jarvie, 2016), the major focus of the Circular Economy are the economic actors that play a vital role within the system and only implicitly benefits the society.

Sustainability refers to the ability of a system to meet the needs of the present without compromising the ability of future generations to meet their own needs. It is a broad and multifaceted concept that encompasses social, economic, and environmental dimensions. Sustainability involves balancing the needs of the planet, people, and profit, and ensuring that economic growth is environmentally and socially responsible.

On the other hand, the Circular Economy is a specific economic model that aims to keep resources in use for as long as possible and minimize waste. It involves moving away from the traditional linear “take-make-use-dispose” model of production and consumption, and instead designing products and systems to be regenerative and restorative. The Circular Economy framework emphasizes the importance of creating closed-loop systems where products and materials are reused, repaired, or recycled, rather than being disposed of as waste.

While sustainability and Circular Economy are distinct concepts, they are closely related and can reinforce each other. For example, a company that adopts Circular Economy principles to reduce waste and improve resource efficiency can contribute

to sustainability by reducing its environmental impact and conserving resources for future generations. Similarly, a city that adopts sustainable policies such as renewable energy and green infrastructure can create a more conducive environment for the Circular Economy by reducing the cost and environmental impact of resource extraction and waste disposal.

To illustrate the difference between Sustainability and Circular Economy with an example, consider a company that produces single-use plastic bottles. A sustainability-oriented approach to this problem would involve reducing the environmental impact of the company's operations by using recycled materials, minimizing waste, and reducing carbon emissions. In contrast, a Circular Economy approach would involve redesigning the product and production process to create a closed-loop system where plastic bottles are collected, recycled, and reused to make new bottles, rather than being discarded as waste.

2.4 The Contribution of Circular Economy Towards SDGs and in Turn Towards Sustainability (Table 1)

3 Circular Economy Encapsulated Within International Businesses

3.1 The Need for Sustainability in International Business

The need for sustainability in international business has been well documented in academic literature, scholarly articles, and corporate reports.

A study by Esen (2013) found that corporate social responsibility (CSR) initiatives can enhance a company's reputation and brand image. Similarly, a report by Cone Communications found that 87% of consumers would purchase a product because a company advocated for an issue they cared about (Cone Communications, 2017). A report by KPMG (2017) found that sustainability risks are becoming increasingly important for businesses to manage. The report highlights the need for businesses to assess the environmental and social impact of their operations and supply chains to identify potential risks and develop strategies to manage them. A report by the United Nations (2017) found that sustainability practices can lead to cost savings for businesses. The report highlights examples of companies that have reduced costs by improving energy efficiency, reducing waste, and adopting sustainable sourcing practices. A report by Nielsen (2018) found that sustainability is becoming increasingly important for consumers when making purchasing decisions. The report highlights the potential for businesses to access new markets and increase

Table 1 The incorporation of circular economy practices in international business; Source: Multiple authors

| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
|--------------------------|--|---|---|
| SDG 2 and Sub-Target 2.4 | Focuses sustainable food production systems. It also ensures the implementation of strong agricultural practices that help improve productivity and production, aid sustainable ecosystems, reinforce capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters (Mukhisa Kituyi, 2016). | <p>The idea of circular agriculture can help reinstate and augment the quality of soil through techniques such as the design of local nutrient loops. Reweighing the effectiveness of the value chains can also help avoid food losses (Van Kruchten & Van Eijk, 2020). Biomass, a precious renewable resource, captures CO₂ from the air and acts a potential source for food, animal feed, materials, transport fuel and energy. It rightfully lies at the heart of the Circular Economy and the existing scarce biomass can be addressed via circular production (Van Kruchten & Van Eijk, 2020)</p> <p>The reclamation of degenerated land can be achieved by connecting nutrient loops, through farms that are located close to consumers through urban and peri-urban farming. Organic agriculture would minimize the need for fertilizers and pesticides, thus ensuring the non-wastefulness of the food system with the circular also being regenerative, resilient, and healthy (Van Kruchten & Van Eijk, 2020)</p> | For instance, a farm in Uganda has developed a small-scale mixed farming system that houses a wide variety of livestock and plants on the farm. Waste products are shared and reused within the system to provide fertilizers, pesticides, and energy. The waste is fed to maggots and is used as feed for fish and other animals. The insects' waste and nutrient-rich wastewater from the aquaculture system is used to fertilize and irrigate crops. An anaerobic digester is also used to process livestock waste to make biogas for cooking. This farm aims to emulate natural processes by integrating livestock and crop production to allow systems to make use of other's waste and reduce environmental impact, as well as to generate multiple income streams, improving the farms environmental and economic sustainability (Africa Food Prize, 2019; Ellen MacArthur Foundation, 2010; Nattassha et al., 2020) |
| SDG 6 and Sub-target 6.1 | The responsibility to achieve universal and equitable access to safe | The recycling and reuse of water aids in the essential improvement of | For instance, the Chennai Metropolitan Water Supply and Sewerage |

(continued)

Table 1 (continued)

| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
|---------|--|---|--|
| | <p>and affordable drinking water for all, by 2030, the proportion of population using safely managed drinking water services being an indicator (United Nations, 2022)</p> | <p>water quality, by reducing pollution and minimizing hazardous chemicals and materials in a Circular Economy can be achieved via:</p> <ul style="list-style-type: none"> (a) Water-efficient technologies and closed-loop systems. (b) Recovery of valuable constituents from process water and industrial symbioses. (c) Site-specific, decentralized removal of hazardous substances. (d) Recovery of nutrient and energy at wastewater treatment plants. (e) Reuse of treated wastewater or its introduction into the environment. (f) Recycling of water and nutrients & water-efficient irrigation systems, management of water balance, and recovery of substances (International Water Association, 2016). | <p>Board (CMWSSB) in India has launched a number of initiatives and investments to diversify water supply, improve water efficiency, and strengthen its capacity to withstand droughts. Since 2005, CMWSSB has been putting various projects into action to treat and reuse wastewater. It recoups the capital investment in the reuse project in less than 5 years by selling the treated wastewater to industrial users and covering all operating and maintenance costs with the additional revenues. Additionally, the CMWSSB retrofitted seven of its wastewater treatment facilities to recover energy from waste and supply more than half of the plants' total energy requirements. This helped to lower GHG emissions while also saving on energy costs and supporting operations financially. The payback period for the energy generation investment was 2.8 years (Morseletto et al., 2022; Voulvoulis, 2018; UNESCO & International Centre for Water Security and Sustainable Management, 2020; Delgado et al., 2021)</p> |
| SDG 8 | The agenda to promote sustained, inclusive, and | Since Circular Economy creates different avenues | In the area of agriculture, for instance, Association |

(continued)

Table 1 (continued)

| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
|---------|--|---|--|
| | sustainable economic growth, full and productive employment, and decent work for all to improve living standards (United Nations, 2022). | that does not otherwise exist with primary production and the disposal practice with linear economy, the Circular Economy creates more jobs (Van Kruchten & Van Eijk, 2020). The UK Waste & Resources Action Plan (WRAP) predicts the creation of three million more jobs within the EU alone, three times more than usual business, with enhanced activities like industrial symbiosis and remanufacturing while the current employment in the Circular Economy being around 3.4 million people (HM Government, 2018). | pour le Maintien d'une Agriculture Paysanne (AMAP) in France is establishing direct links between local farmers and consumers, thereby helping to shorten supply chains between producers and consumers and creating local jobs at the same time (International Institute for Sustainable Development, 2020). According to research by Circle Economy and Ehero, there were 810,000 jobs in the Dutch circular labor force in 2015, or 8% of all jobs in the country. Before 2008, the percentage of circular jobs in the Dutch workforce as a whole was fairly stable, hovering around the 10% mark. However, after 2008, it significantly decreased, losing almost 100,000 of these positions (Sulich & Sofoducho-Pelc, 2021; Circle Economy & Erasmus Research Institute for Happiness Economics (Ehero), 2022) |
| SDG 9 | Building resilient infrastructure, promotion of inclusive and sustainable industrialization to foster innovation (United Nations, 2022). | Industrial symbiosis via which byproducts of an industry or its process becomes the raw materials for another, remanufacturing, and closed-loop supply chains (World Business Council for Sustainable Development, 2018a). | In order to improve waste processing, treatment, and recycling in the city of Lahti, Päijät-Häme Waste Management Ltd. (PHJ) has applied the concepts of industrial symbiosis. Their project for the Kujala Waste Center has succeeded. To make it |

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Table 1 (continued)

| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | | simple to transfer waste-related outputs from one business to another for reuse or further processing, several waste-related businesses were consolidated on a single site covering over 70 ha (Oughton et al., 2022) |
| SDG 11 | Making cities and human settlements inclusive, safe, resilient, and sustainable (United Nations, 2022). | Embedding core resources of circularity at their highest potential—from water, via housing and infrastructure, to food and nutrition, the idea of Circular Cities aims to sustain the societal needs of its residents within the natural boundaries of the earth. Circular Cities could additionally: (a) Providing a platform to showcase ideal practices within the city. (b) Discovering the circular potential of the city and setting priorities and ambitions. (c) Including businesses and creating space for experimentation. (d) Comprehending the barriers to circularity and addressing them. (e) Promoting the interdisciplinary and cross-sectoral collaborations. (f) Leading by example and building on successes. (g) Establishing mainstream circular thinking into all education and training. (h) Monitoring, adjusting, and scaling (Circle | Glasgow City Council, Circle Economy, and Zero Waste Scotland are partners in the delivery of Circular Glasgow, a project of the Glasgow Chamber of Commerce. It lays out a vision for Glasgow’s Circular Economy and offers the city’s business community concrete steps they can take to support economic growth, resource recovery and reuse, and carbon emissions reductions (Ellen MacArthur Foundation, 2023a). In the spring of 2018, the City of San Francisco passed a law requiring all carpets installed in city departments to be at least Cradle-to-Cradle Certified Silver and free of antimicrobials, fluorinated compounds, flame retardant chemicals, and other hazardous substances. When it comes to carpet adhesives, the same rules apply. To make replacement simple and reduce waste, carpet tiles should be used. Additionally, the carpet fibers and backing |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | Economy & Holland Circular Hotspot, 2019). | materials must both have a minimum percentage of recycled materials and be recyclable after use (Ellen MacArthur Foundation, 2023b). In an effort to lower emissions, lessen noise pollution, and improve air quality, Shenzhen became the first city in the world to electrify all public buses in 2017. Additionally, the project promoted the advancement of electric mobility. Manufacturers are encouraged by the adoption of new service models to create auto parts that are easy to maintain, keep in use, and retain value. There are currently more than 16,000 electric public buses (e-buses) operating on city streets, and the city has invested heavily in urban infrastructure, adding more than 500 bus charging stations and 5100 bus charging points (Ellen MacArthur Foundation, 2023d). |
| SDG 12 | Ensuring sustainable consumption and production practices maximizing the socioeconomic benefits of resource use (United Nations, 2022). | Implementing Circular Economy practices in terms of water management, waste management, sustainable products and services, sustainable supply chains as well as synergies with renewable energy (Van Kruchten & Van Eijk, 2020). Executing Circular Economy practices via small- | 10.9 billion cans and bottles were recycled for reuse in Denmark in 2021, reaching a return rate of 93% for disposable packaging. Dansk Retursystem, the Danish deposit and return system for recycling beverage cans and bottles, is largely to blame for this. A widespread circular |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | <p>scale biomass technologies (e.g., biogas) are crucial elements of renewable energy systems. Circular Economy practices can also be used in industry and buildings for energy efficiency, however (e.g., waste heat recovery or insulation materials) (Babette Porcelijn, 2016).</p> | <p>return system that enables you to return your used beverage containers to supermarkets and self-service kiosks throughout Denmark in exchange for a cash deposit (Boorová, 2020). The Danish deposit system can be viewed as a model for boosting recycling rates and promoting the Circular Economy, particularly in order to meet the EU target of collecting 90% of plastic bottles by 2029 (Dansk Retursystem, 2022).</p> |
| SDG 13 | Undertaking immediate action towards climate change and its impacts | <p>The application of strategies in the Circular Economy within four critical industries—cement, steel, plastic, and aluminum could help in the reduction of emissions by 40% in 2050. Across the food system, the reduction could amount to 49%, bringing emissions 45% closer to their net-zero emission targets (Ellen Macarthur Foundation, 2021).</p> | <p>Greenhouse gas emissions can be decreased throughout the value chain by removing waste and pollution. The embodied energy is kept by circulating goods and materials, by regenerating nature, reducing carbon in products and soil. For example, it is possible to reduce emissions from construction materials by 38% by 2050 in the building and construction industry by reducing waste, increasing building sharing, and recycling and reusing construction materials. The emissions from the food system can be cut in half by 2050 in agriculture by switching to regenerative production methods, eliminating food waste, and using</p> |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | | better and up-cycled ingredients in food products and menus (Ellen MacArthur Foundation, 2023c). |
| SDG 14 | Addressing the conservation and sustainable use of the oceans, seas, and marine resources for sustainable development. | <p>(a) Calling for regulatory interventions like the setting up of or expansion of extended producer responsibility (EPR) for working with bans, taxes, subsidies.</p> <p>(b) Communicating with consumers about the aftermath of the products that they buy and the ways to separate their waste.</p> <p>(c) Ensuring source separation of plastics and phasing out unnecessary materials such as single-use plastics (Van Kruchten & Van Eijk, 2020).</p> | This case study is one in a series that the World Bank's Water Global Practice has created to highlight real-world water sector experiences. The series aims to highlight one or more of the components that can lead to a Water in Circular Economics and Resilience (WICER) system. Cambodia's capital city of Phnom Penh is the subject of this case (Morseletto et al., 2022). Efficiency in using resources and zero (or minimal) waste is two of the central tenets of a Circular Economy. The Phnom Penh Water Supply Authority (PPWSA) is adopting Circular Economy principles in order to create a more sustainable future by significantly reducing water losses and enhancing operational effectiveness (World Bank Group, 2022). |
| SDG 15 | To ensure the protection, restoration and promotion and the sustainable use of terrestrial ecosystems, sustainable forest management, tackling of desertification, reversing land degradation, and halting biodiversity loss (United Nations, 2022). | Organic agriculture and organic waste management can strengthen the resilience to benefit biodiversity as well as forestry (Van Kruchten & Van Eijk, 2020). Biomimicry that reckons on the operation of ecosystems emulates | The Japanese bullet train Shinkansen serves as one example. According to Sunni Robertson of the San Diego Zoo, a center for biomimicry research and education, Japan made a breakthrough in transportation technology in the late '90s that |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | functional strategies to create sustainable solutions that embody the reconnection of nature (The Biomimicry Institute, 2023) | allowed trains to travel at 300 kph. However, the bullet train’s impact with the air cushion that was accumulating in front of it caused sound pollution issues. Both local residents and the wildlife were startled by the booming noise. When a kingfisher bird flew into the water with a smooth splash at that time, Japanese engineers who were out for a stroll in the park witnessed it. Engineers visited biologists in awe and learned that the large head and the long, narrow beak were the miracles. The bullet train eliminated any boom and saved an additional 10–15% of energy thanks to a straightforward change in design that was inspired by nature. We can see how Benyus’ four essential steps for achieving a biomimetic future are applied practically through Shinkansen’s example (Dinh, 2021). |
| SDG 17 | To strengthen the means of implementation and revitalization of the Global Partnership for Sustainable Development (United Nations, 2022). | To design products and materials with the objective of long-term value retention: Product Design, Circular Materials, Classic Long Life, Encourage Sufficiency and to enforce industrial symbiosis, with an organization’s waste becoming another’s resource, creates a mutual symbiotic dependency (Van | Non-governmental organizations (NGOs) are stepping in to bring together various stakeholders, like the Alliance to End Plastic Waste, which has its headquarters in Singapore, and the Worldwide Fund for Nature (WWF). The Alliance collaborates with the innovation platform Plug and Play, |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | <p>Kruchten & Van Eijk, 2020).</p> | <p>which connects over 30,000 start-ups, businesses, venture capitalists, and other industry players. This collaboration enables promising start-ups fighting plastic pollution to grow. Through their 90-day accelerator, 11 start-ups from across the value chain were linked to large multinationals’ investment and support in 2020. These solutions ranged from smart home waste management tools to robots that collect floating waste in waterways. Global consumer goods companies like Procter & Gamble and Nestle, many of which have their Asia and Pacific (APAC) Office headquarters in Singapore, are collaborating with regional research organizations like the Institute of Sustainability for Chemicals, Energy, and Environment (ISCE2) of the Agency for Science, Technology and Research (A*STAR). These collaborations could hasten the creation and commercialization of circular innovations. One such instance is HyperScale, the first waste-tech accelerator in Asia established by Enterprise Singapore (ESG) and StartupX in</p> |

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| Sr. No. | SDG | The contribution of circular economy towards SDGs in international business | Examples of real-time applications |
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| | | | April 2022. The program provides start-ups in the recycling of plastics and e-waste with the knowledge they need to develop marketable products and long-lasting business models. Additionally, it links them to local stakeholders who can help them improve their product-market fit as well as VC firms and impact investment funds that specialize in waste- and sustainability-related technologies (Poh, 2022). |

their competitiveness by adopting sustainable practices. A study by Global Reporting Initiative (2018) found that sustainability reporting is becoming increasingly important for businesses to comply with regulations and meet stakeholder expectations. The report highlights the need for businesses to adopt a comprehensive approach to sustainability reporting that includes environmental, social, and governance (ESG) issues. A study by PwC (2018) found that employees are increasingly interested in working for companies that are committed to sustainability. The report highlights the potential for businesses to attract and retain talented employees by adopting sustainable practices.

The need for sustainability in international business is supported by a range of academic research and corporate reports. These sources highlight the potential benefits of sustainability practices in terms of reputation and brand image, risk management, cost savings, access to new markets, compliance with regulations, and employee engagement.

3.2 Current State of International Businesses' Adopting Circular Economy

To this day, several organizations still find it difficult to view Circular Economy as a revenue-making paradigm, and instead view it as being risky and expensive

(Cristoni & Tonelli, 2018). Circular Economy can drive sustainable practices in several areas within organizations such as strategic planning, cost management, circular supply chain management, quality management, environmental management, process management, logistics and reverse logistics, service management, and research and development (Barros et al., 2021).

Only niche markets like product service systems in automotive coatings and resource recovery in the steel sector, so far have been able to successfully adopt the Circular Economy to a significant extent. The reuse and remanufacturing, sharing of under-utilized capacity, and the provision of services amount to only a small proportion of not more than 10% output in most sectors (Organization for Economic Co-operation and Development, 2018).

There are several practical actions and strategies that international organizations can develop and promote to encourage a more effective implementation of the circular economy. Governments can promote the implementation of extended producer responsibility (EPR) programs, which require producers to take responsibility for the environmental impact of their products throughout their lifecycle. EPR programs can encourage the adoption of circular economy practices such as product design for recyclability and the use of recycled materials. Design for Circularity is an approach that involves designing products, processes, and systems with circularity in mind. This approach can involve designing products that are easy to disassemble and repair, using recycled materials, and reducing waste and emissions throughout the product lifecycle. International organizations can promote circular business models such as product-as-a-service, which involves providing customers with access to a product rather than selling it outright. This model can encourage businesses to design products that are durable, easy to repair, and designed for circularity. And finally, international organizations can promote research and development in circular innovation, which involves developing new technologies, materials, and business models that support circular economy principles. This can involve providing funding for research, fostering collaborations between businesses and researchers, and supporting the development of pilot projects (Table 2).

3.3 Ensuring the Continuous Adoption of Circular Economy in International Businesses

Extensive literature across sources claims Circular Economy in both developed and developing countries could benefit in terms of cost savings, job creation, innovation, productivity, and resource efficiency (e.g., Yuan et al., 2008; Ellen MacArthur Foundation, 2015; Gower & Schroeder, 2016).

Despite these optimistic economic benefits, currently the amount of all materials recycled from the ones processed by the global economy are only as little as 6%, while the intensity of circularity within the EU economy is almost twice as much as

Table 2 The market share of sectors that have adopted Circular Business Model; Source: Andrew McCarthy et al. (2018), Organization for Economic Co-operation and Development (2018)

| Business Model | Sector | Market penetration |
|---|--|--------------------|
| PSS: result-oriented (chemicals) | Automobile | 50–80% |
| PSS: result-oriented (digital content) | Music | 50% |
| Waste as value: Recycling | Pulp and paper | 38% |
| PSS: result-oriented (digital content) | Books | 25–35% |
| Waste as value: Recycling | Steel | 25% |
| PSS: result-oriented (chemicals) | Aeronautical | 5–15% |
| Waste as value: Recycling | Plastics | 13% |
| Product life extension: Refurbishment | Smartphones | 4–8% |
| PSS: result-oriented (lighting and heating) | Miscellaneous | 4–8% |
| Product life extension: remanufacturing | Machinery | 3–4% |
| Product life extension: refurbishment | Miscellaneous | 2–3% |
| Product life extension: remanufacturing | Aeronautical | 2–12% |
| Idle Capacity: co-access | Lodging | 1–6% |
| Product life extension: remanufacturing | Automobile | 1% |
| Product life extension: remanufacturing | Consumer and electrical and electronic equipment (EEE) | 0–1% |
| Was as value: recycling | Rare earth element (REE) metals | <1% |
| PSS: user-oriented (car sharing) | Transit | <1% |

the global average—about 13% of processed materials and it is still low (Haas et al., 2015).

To take complete advantage of these benefits, the private sector will have to step forward with strong action and implementation. SMEs and International Businesses are becoming slowly becoming au fait of these benefits and are thus exploring ways to incorporate Circular Economy business models (Lewandowski, 2016).

Currently, International Businesses are more conveniently implementing only the technical aspects of Sustainable Business Models or Circular Economy Models, such as maximization of material and energy efficiency, creation of value from waste, or application of biomimicry principles to make a shift from non-renewable to renewable resources, according to the sustainable business model archetypes described by Bocken et al. (2014). Even the inclusion of certain social elements to this mix such as ethical trade, consumer education to reduce unsustainable consumption, and sufficiency-driven business (Bocken & Short, 2016) does not suffice since they are not core aspects. However, the Circular Economy has one encouraging feature. The

product service system (PSS), also known as the circular economy (CE) business model, is defined as “tangible products and intangible services designed and combined so that they jointly are capable of fulfilling specific customer needs.” (Tukker, 2004). The product service system (PSS) of the Circular Economy Model does not pay enough way for behavioral freedom and control over products and have hence not been exploited to the maximum (Tukker, 2015).

A lack in support from the supply and demand networks and lack of capital have been identified as two main barriers for small and medium-sized enterprises (SMEs) to adopt Circular Economy business models in existing literature so far (Rizos et al., 2016); another vital factor is an environmentally responsible corporate culture.

Since stakeholders from across the globe have intensified pressure on businesses to ensure ethical practices of providing goods and services while also ensuring the safety, the environment, and health (Sinha, 2022), International Businesses’ play a vital role in achieving Circular Economy objectives by adapting to strategies that encourage them to make their supply chain more sustainable. These circular policies can also ensure effective management of scarce resources and ensure minimal negative environmental impact (Tura et al., 2019).

Studies have also suggested that Circular Economy activities be spread across one of the three levels (Yong, 2007; Yuan et al., 2008) the macro level, focusing on regions, cities, municipalities, or provinces; the meso level, focusing on eco-industrial networks, where the waste from one organization becomes the raw material of another; and the micro level, focusing on improving the environmental performance of a particular organization, for instance, through the reduction of resource consumption, waste discharges or designing more environmentally friendly products.

4 How Circular Economy Benefits International Businesses

4.1 Benefits

The Circular Economy has gained increasing attention in recent years as a potential solution to the challenges of resource depletion and environmental degradation. In the context of international business, the Circular Economy offers a range of potential benefits, including improved resource efficiency, reduced waste and emissions, and enhanced competitiveness. This critical analysis will examine the benefits of the Circular Economy to international business, drawing on academic literature, scholarly articles, and corporate reports.

One of the key benefits of the Circular Economy to international business is improved resource efficiency. By adopting circular business models, companies can reduce their reliance on finite resources and move towards a more sustainable, closed-loop system. A study by the Ellen MacArthur Foundation (2015) found that the Circular Economy has the potential to generate \$1 trillion in material savings by 2025. This can be achieved through a range of circular business models, including

product design for circularity, closed-loop supply chains, and collaborative consumption. Another benefit of the Circular Economy to international business is the potential to reduce waste and emissions. Circular business models can help companies to minimize waste by designing products that can be easily repaired, reused, or recycled. This can also help to reduce emissions by minimizing the need for virgin materials and energy-intensive production processes. A report by Accenture (2017) found that circular business models can help to reduce carbon emissions by up to 45% in some sectors.

In addition to environmental benefits, the Circular Economy can also enhance the competitiveness of international businesses. By adopting circular business models, companies can differentiate themselves from competitors and appeal to consumers who are increasingly concerned about sustainability. A report by the World Economic Forum & PwC (2019) found that circular business models can help to create new revenue streams, improve customer loyalty, and enhance brand reputation.

There are several examples of international businesses that have successfully implemented Circular Economy projects. For instance, Unilever has developed a circular business model for its Dove brand, which involves using recycled plastic in its packaging and partnering with recycling companies to collect and process the plastic waste (Unilever, 2018). Similarly, IKEA has launched a circular business model for its furniture products, which involves leasing rather than selling the products and taking responsibility for the end-of-life disposal (IKEA, 2020). These examples demonstrate the potential of Circular Economy projects to enhance sustainability and competitiveness in international business.

Circular Economy offers a range of potential benefits to international business, including improved resource efficiency, reduced waste and emissions, and enhanced competitiveness. These benefits are supported by academic literature, scholarly articles, and corporate reports, which highlight the potential of circular business models to generate material savings, reduce carbon emissions, and create new revenue streams. The examples of Circular Economy projects implemented by international businesses demonstrate the feasibility and effectiveness of these models in practice. Therefore, international businesses should explore the potential of Circular Economy projects to enhance sustainability and competitiveness in a rapidly changing global economy (Table 3).

4.2 The Driving Forces in the Circular Economy

4.2.1 Climate Change

Climate change and material use are closely connected. Circular Economy computes that 62% of global greenhouse gas emissions are released during the extraction, processing, and manufacturing of goods to serve society's need and only 38% are emitted in the delivery and use of products and services (De Wit et al., 2019).

Table 3 The contributions of Circular Economy to sustainable business management; Sources: Multiple Authors

| Sr. No. | Areas of international business | Contributions of circular economy |
|---------|---------------------------------|---|
| 1. | Strategic Planning (SP) | <p>Contribution towards an increased resource efficiency through key principles required to achieve strategic advantage, wherein organizations seek to decrease the environmental burdens and increase the economic aspects of their operations by reducing, reusing, and recycling waste and attaining environmental goals (Haas et al., 2015; Yang & Feng, 2008; Heyes et al., 2018).</p> <p>Circular Economy is an idea and strategic move towards creating value and increasing the profit of organizations (Fonseca et al., 2018)</p> <p>Organizations that choose to adopt Circular Economy are able to open up avenues for the reduction of operational costs via resource recycling and reuse (Park et al., 2010).</p> |
| 2. | Cost Management | <p>Adoption of Circular Economy allows organizations to convert end-of-life products into resources for the conversion of new products, leading to a minimization of waste while also reducing the need for new materials (Stahel, 2016; Haas et al., 2015).</p> <p>While it is undeniable that a shift from linear to Circular Economy will temporarily increase cost in the form of investments, resource scarcity could cause prices to shoot up and become more unstable, impacting the value creation and capture negatively (Fonseca et al., 2018; Lahti et al., 2018).</p> |
| 3. | Supply Chain Management (CSCM) | <p>With the ability to recover the value, Circular supply chains offer opportunities to extend the life cycle of goods economically (Gregson et al., 2015; Hankammer et al., 2019; Vljajic et al., 2018; Hofmann, 2019; Hofmann & Jaeger-Erben, 2020). Circular supply chain management also results in the minimization of resource input and prevents waste and emissions from leaking, thereby improving operational effectiveness, and increasing competitiveness (Geissdoerfer et al., 2018).</p> <p>A consumer behavior study of the Brazilian coffee-in-capsules market stated that the actions necessary to adopt circularity in supply chain include the expansion of urban collection points; inclusion of incentive programs that motivate customers to return the capsules or dropping them off at a pick-up point; cultivation of a culture of civic responsibility and awareness around waste reduction; and the association with specialized recycling organizations to explore each waste separately. On that note, it is essential for organizations to create an environmental,</p> |

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| Sr. No. | Areas of international business | Contributions of circular economy |
|---------|--|--|
| | | economic, logistics, organizational, and marketing performance-balance (Abuabara et al., 2019). |
| 4. | Quality Management (QM) | By ensuring that the quality of the main material flows and the role of a quality management system that is integrated with the Circular Economy, it can foster quality improvement in processes, while also successfully achieving competitiveness in business (Stahel, 2016), implementing customer-oriented and differentiation strategies (Fonseca et al., 2018; Barros et al., 2021). |
| 5. | Process Management (PM) | The implementation of Circular Economy calls for the reengineering of processes in order to extend product life (Lofthouse & Prendeville, 2018), reduce environmental impacts, or increase financial results, for which product and resource recovery become vital (Witjes & Lozano, 2016). According to Walmsley et al. 2018, the inclusion of these processes may result in industrial symbiosis, in which the output of one process serves as the input for another. |
| 6. | Logistics and Reverse Logistics (L&RL) | Reverse Logistics—a vital competency in modern supply chains (de Brito & Dekker, 2004) has the potential to be a profit generating function (Rogers & Tibben-Lembke, 2001). These could include sharing transport means in order to increase load factor, strengthen and stimulate industrial clustering, thus contributing to lowering transportation costs, reduced environmental impacts (Barros et al., 2021). Additionally, last mile delivery, service, and first mile reverse logistics could be integrated to increase circularity. Deliveries, pickups, and intermediary logistic services can increase transport efficiency and circularity if merged or shared (van Buren et al., 2016). This can also include the process of transferring post-use wastes back upstream to re-process them and recover their value (Geisendorf & Pietrulla, 2018), which is in turn based on the concept of take-back systems (TBS) (Stål & Jansson, 2017). |
| 7. | Service Management (SM) | Service-based organizations strategically play a crucial role in the transition towards Circular Economy (Hsieh et al., 2017). Being holistic and adaptive by its virtue, the use of Product Service Systems (PSS) as a model utilizes eco-efficient services that can be replicated and competed with the “fast-fashion” industry (Bocken et al., 2018; Fernandes et al., 2019). The PSS model has also been suggested as a path for greater sustainability |

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Table 3 (continued)

| Sr. No. | Areas of international business | Contributions of circular economy |
|---------|---|---|
| | | <p>(Tukker, 2004).</p> <p>Existing literature claims that a service-based industry can more effectively attain Circular Economy (Stahel, 2016; Todeschini et al., 2017; Maffei et al., 2019; Lofthouse & Prendeville, 2018).</p> <p>Yang et al. (2018) suggest that PSS as a model adds value to building circularity, irrespective of whether it is product-oriented, use-oriented, or result-oriented.</p> |
| 8. | Research and Development (R&D) | <p>Eco-design and life-cycle assessment-based research and development (Baldassarre et al., 2020; Sauv e et al., 2016) allows for the selection of alternative materials, seeks better economic and environmental performance throughout the whole life cycle of products (Ribeiro et al., 2013).</p> <p>Product design in terms of creating long-lasting goods and extending the life of products (by, e.g., offering services to extend product life, such as repairing and remanufacturing), the life cycle and usage of these products are increased, thus slowing the flow of resources (Bocken et al., 2016), thus also providing competitive advantages for brands (Bocken et al., 2016)</p> |
| 9. | Marketing and Corporate Social Responsibility (CSR) | <p>Circular economy offers a competitive advantage to businesses. Studies have identified that organizations that adopt circular economy principles can benefit from increased customer loyalty, enhanced brand reputation, and access to new markets (Schr oder et al., 2019). For example, brands like Interface and Patagonia have implemented circular economy practices and have been able to differentiate themselves from their competitors by promoting their sustainable practices and commitment to the environment (Stahel, 2016).</p> <p>Circular economy can also contribute to corporate social responsibility by promoting sustainable practices and reducing environmental impact. According to a report by the World Business Council for Sustainable Development (2018b), circular economy principles can help businesses to reduce waste, conserve resources, and improve efficiency, thereby reducing their environmental impact and contributing to sustainable development. Through this, businesses can also demonstrate their commitment to sustainability and social responsibility, which can enhance their reputation and attract socially responsible investors.</p> <p>Additionally, circular economy can contribute to marketing and CSR by providing opportunities for innovation and collaboration. According to a study by</p> |

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| Sr. No. | Areas of international business | Contributions of circular economy |
|---------|---------------------------------|--|
| | | <p>McKinsey & Company, circular economy principles can create new business opportunities and foster collaboration between businesses, governments, and other stakeholders, leading to innovative solutions to sustainability challenges (McKinsey & Company, 2016). For example, the Circular Fashion Partnership, a collaboration between the United Nations Economic Commission for Europe and the Global Fashion Agenda, aims to promote circular economy practices in the fashion industry by fostering collaboration between businesses, policymakers, and other stakeholders (World Business Council for Sustainable Development, 2018b).</p> |
| 10. | Human Resources | <p>Within the circular economy, employees are encouraged to think of waste as a valuable resource that can be reused, repurposed, or recycled. This requires a shift in mindset, as well as the development of new skills and knowledge. For example, employees in the design and engineering departments may need to learn how to design products for circularity, while employees in the logistics and supply chain departments may need to learn how to manage reverse logistics and product take-back programs.</p> <p>The implementation of circular economy practices can enhance employee engagement and satisfaction. Employees are more likely to feel motivated and engaged when they work for a company that is committed to sustainability and environmental stewardship. According to a study by Cone Communications (2016), 75% of millennials would take a pay cut to work for a socially and environmentally responsible company.</p> <p>In terms of talent acquisition and retention, companies that embrace circular economy principles can attract and retain employees who are passionate about sustainability and social responsibility. This is particularly important for companies operating in competitive labor markets where attracting and retaining top talent is a challenge (Garengo et al., 2022).</p> |

In fact, Forbes (Wayne Elsey, 2021) reports that the pandemic pushed for a greater difference with regard to climate change, wherein, the planet witnessed the most remarkable drop in CO2 emissions since the 1940s, speaking in terms of a percentage, it was a plunge of approximately 7%.

The 2019 Circularity Gap Report (De Wit et al., 2019) states that closing the circular gap could aid as a fundamental step towards fighting climate change;

however, following this approach would require a major shift in how society consumes its natural resources.

Energy efficiency and switching to renewable energy is only half the solution and addresses only 55% of global emissions. In order to reach net-zero level, there is a dire need to change the way humans produce and consume products, materials, and food. Circular Economy in this sense is targeted as a means to cut greenhouse gases, through the adoption of three principles through a long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling of products, services, and systems through the elimination of waste and pollution, reduction of greenhouse gas emissions across the value chain is possible, through the circulation of products and materials, retention of embodied energy is targeted and through regeneration of nature, sequestering carbon in soil and products is feasible.

4.2.2 Consumer Awareness

Consumer awareness is described as one of the key factors in the adoption of circularity across emerging economies (Patwa et al., 2021). Awareness, education, communication, information, and economic factors have a major influence on the functioning of a population and the shift towards the adoption of Circular Economy practices (Aras & Crowther, 2009).

“Waste to Wealth” by Accenture Strategy (Lacy & Rutqvist, 2015) identifies the potential for Circular Economy to unlock \$4.5 trillion of economic growth, while the The Ellen MacArthur Foundation (2013) establishes that the Circular Economy could be worth as much as USD 700 billion in consumer material savings.

However, to be able to realize the maximum potential of the growing Circular Economy, consumers’ perceptions and behaviors towards circular products and services call for a change (Witjes & Lozano, 2016; Cox et al., 2013; Lakatos et al., 2016). Understanding and including consumers in this transitional process is pivotal towards shaping their behaviors toward sustainable consumption habits (Szilagyi et al., 2022). The concern towards sustainable consumption has drastically shifted among consumers over the last three decades. Customers are becoming more conscious of the role they play in environmental issues caused by overconsumption, and hence an increase in the purchase of more eco-friendly products has increased, with a larger variance of millennials preferring brands that embrace purpose and sustainability (Pinto de Moura et al., 2012; Verbeke et al., 2007; Szilagyi et al., 2022).

According to HBR (Katherine White et al., 2019), Unilever, recently, estimated that almost 70% of the planet’s greenhouse gas footprint is dependent on the nature of products that customers choose and whether these are used and disposed of in a sustainable manner—for instance, an attempt to conserve water and energy while doing the laundry.

4.2.3 Sustainability in Business

Business lies innately at the core of the transition to a Circular Economy. Considering that the Circular Economy has resulted in a drastic global shift in every regard of life that seeks to eliminate waste and extend resources, it has become crucial for every business to participate in the Circular Economy (Wayne Elsey, 2021). Organizations have an increasing responsibility to preserve the societal environmental and sustainable values and justify it to their stakeholders (Lahti et al., 2018).

It is predicted that much like born-digital companies disrupted traditional business models, there will be a rather high possibility of born-circular companies disrupting born-linear models that will call for the abandoning of current competitive advantages, changing well-functioning supply chains, and investing in circular business models (Henrik Hvid Jensen, 2022). A Gartner report predicts optimistically that by 2029, governments and customers would not accept waste production from supply chains, as a result of which, supply chain leaders will be expected to dramatically alter how they function, including a shift from wasteful linear models to circular models that reuse and renew, in order to stay competitive (Johnson & Steutermann, 2019).

Sustainable business models embracing the concept of circularity have been discussed in detail in the past to help organizations perceive the Circular Economy as a revenue-making paradigm, rather than risky and costly (Cristoni & Tonelli, 2018; Urbinati et al., 2017; Salvador et al., 2021).

The World Economic Forum also identifies that constructing a Circular Economy would reinforce local economies in a socially inclusive way, creating more jobs instead of choosing the traditional linear approach to waste. The opportunities for repairing and leasing in the economy open up avenues for more jobs, thereby becoming the business opportunity of the time. Amplifying circularity effectively aids society in reaching net-zero by ensuring that the economy is more in line with the Earth's boundaries (Jan Jenisch, 2022).

There is a pressing need for businesses, countries, and cities to rally behind the shared goal, to accelerate action and work together to scale up the change across governments and civil society. This could include the practice of setting strategic circular business ambitions for organizations and embracing relevant metrics to measure progress, including the commitment to achieve defined percentages for the amount of recycled input used in products, the number of products designed using circular principles, revenue generated from circular products and services, or the amount of waste sent to landfill. This also puts out a call for leaders of global organizations to contribute to the increasing movement of aligning circularity with action in new business models, eco-centric design methods, supplier engagement programs, and recycling that enforces a goal to not just look at action and resource efficiency in the short-term but also offers a strategy to tackle climate and biodiversity crises in the long run (van Veldhoven & van Houten, 2022).

4.2.4 Internal Stakeholders

Key internal role players including the organizational culture, the brand's adherence to sustainability issues, and the commitment of employees and managers can contribute towards the implementation of the Circular Economy (Agyemang et al., 2019; Govindan & Hasanagic, 2018; de Mattos & de Albuquerque, 2018; Rizos et al., 2016). These internal stakeholders also reap benefits in terms of financial benefits that stems from increased profitability, market share, cost reduction, and process stability, added attraction of consumers, expanded consumer loyalty and improvement in product quality, environmental safety, and increased efficiency in using resources (Ostermann et al., 2021).

The execution of any new shift takes place as an outcome of persuasion from stakeholders or shareholders and commitment from top management (Govindan & Hasanagic, 2018). Management commitment and support, through the right kind of training for employees and suppliers, have been crucial influencers on organizational initiatives towards the implementation of circularity (Dubey et al., 2019). A clear vision in terms of goals, objectives, and targets also proves to be essential during transitions (Pan et al., 2015).

4.2.5 External Stakeholders

Among the external drivers are government regulations, international competition, companies' social responsibility and pressure from stakeholders' (Agyemang et al., 2019), government support, legislation, and geographical proximity (de Mattos & de Albuquerque, 2018), politics and economics (regulations, economic growth), society (consumer concern and reduced effect of consumption and urbanization, the demand of sustainable products or services from customers.) (Govindan & Hasanagic, 2018).

Governments around the world are increasingly introducing regulations to promote sustainable business practices, including circular economy principles. For example, the European Union's Circular Economy Action Plan (European Commission, 2020) sets out a range of initiatives to promote the circular economy, including product design requirements, waste reduction targets, and measures to promote the use of recycled materials. Compliance with these regulations can be a significant driver for businesses to adopt circular economy practices. As more businesses adopt circular economy principles, competition is likely to increase. This can create pressure on businesses to adopt circular economy practices in order to remain competitive. For example, the Ellen MacArthur Foundation's Circularity Gap Report 2021 (Circle Economy, 2021) highlights the potential economic benefits of closing the circularity gap, which could create opportunities for businesses that adopt circular economy principles. Many businesses recognize the importance of social responsibility and are adopting circular economy principles as part of their sustainability strategies. For example, IKEA (2020) has committed to becoming a circular business by 2030, with a focus on designing products that are durable,

repairable, and recyclable. This reflects the company's commitment to social responsibility and sustainable business practices. Stakeholders such as consumers, investors, and NGOs can exert pressure on businesses to adopt circular economy principles. For example, a survey by GlobeScan (2012) found that 88% of consumers believe that companies have a responsibility to address environmental and social issues, and 92% believe that companies should be held accountable for the environmental impact of their products. This highlights the potential for stakeholders to drive demand for circular economy products and services.

5 Challenges

5.1 *Current Challenges that International Business Face In Implementing SDGs*

Despite the direct and obvious calls for the participation of international businesses and private sectors to offer their bit of contribution towards the SDG agenda, the engagement of business' with SDGs has been criticized to be "cherry picked" to fit their existing models and focus only on selected SDGs in their reporting (Mio et al., 2020; Van Tulder et al., 2021; Lashitew, 2021) This then serves only as an incomplete snapshot of the impact that organizations have on SDGs, while the bigger picture should ideally include the holistic nature of SDGs and the proposed complementarities or trade-offs between the goals. "SDG washing," cognate to "greenwashing" has been the cause of selective reporting on the SDGs (van Zanten & van Tulder, 2018).

While it cannot be ignored that several MNEs were quick to their feet to publicly embrace the SDGs, with surveys (van Zanten & van Tulder, 2018) indicating that a larger share of CEOs believed that SDGs were certainly contributed towards their sustainability efforts, and organizations were planning ways to engage goals and embed them in their strategies in the coming years, as of 2020 the overall progress of MNEs in general with the SDGs has been disappointing. A sample analysis of the Forbes Global 2000 report indicated that only about 23% global organizations (39% for organizations with sustainability reports) have mentioned about SDGs in their companies (van der Waal & Thijssens, 2020).

In one of Deloitte's latest report consolidated after surveying 153 businesses, 55 government officials and expert interviews with 47 thought leaders across businesses, governments, academia, and NGOs (Yuan et al., 2008), barriers to Circular Economy have been categorized into 4 interrelated types, namely, cultural, technological, market, and regulatory.

Role of International Business: International Business through its evolution with time shifted its focus towards firm-level economics (Hymer, 1970) instead of societal or environmental impacts (Rygh, 2019; Roberts & Dörrenbächer, 2014) on the society. Existing knowledge on how International Businesses preserve in

terms of social responsibility and sustainability is inadequate, as indicated by several literature reviews over a period of time (Egri & Ralston, 2008; Kolk et al., 2017; Kolk & van Tulder, 2010; Sinkovics & Archie-acheampong, 2019).

Cultural Barriers: Three out of Five pressing challenges have been identified to be related to culture, among which include a lack in consumer interest and awareness (Yuan et al., 2008). Acceptance by the targeted audience is foundational towards building a strong market behavior that has the ability to influence businesses to convert their business models to be more circular. Studies have showed that a strong demand from customers for sustainable products and services could decide the strategy of the organization (Lee, 2016), while at the same time a lack of awareness of the environmental impact of products and services among consumers could potentially hamper the transition (Achillas et al., 2011). Customers with a positive outlook and opinion of reused products will not need incentives to engage in the transition towards circularity. Price, however, remains a key factor in the consumer decision-making process and because environmentally friendly products tend to come in higher prices, with costs that are incurred upfront, through investments in better design, research, technical expertise, raw materials, and infrastructure, reduced prices in the linear production system do not include the negative impacts of products on the environment (Rizos et al., 2021). Industry-specific studies (Rizos et al., 2021) also indicate that a lack of interest or trust from a customer towards circular solutions was seen to be the most commonly experienced barrier, with over half of the organizations surveyed in the EEE industry describing this as an obstruction. A key reason for this was also found to be skeptic impression about quality and reliability of refurbished products by those involved in refurbishing or remanufacturing.

Market Barriers: Low virgin material prices contributed to about 45% of the cause, while high upfront investment costs, due to a serious lack in market readiness of many circular products, took up about 40% of the reasoning (Rizos et al., 2021). Market Barriers also mean that it is important to put in place the needed infrastructure including waste management, treatment facilities, packaging, recycling processes, and other systems required throughout the product's life cycle, that backs up Circular Economy practices, ensuring a smooth transition takes place (Melati et al., 2021). The existing limitation for sustainable material alternatives across several industries that can recover remanufacturing and reutilization costs is another pressing challenge. Since for a limited time period, the cost incurred in a linear production processes is lower, and with no incentives such as tax relief and subsidies, the production cost may increase, which may not sound attractive to consumers (Melati et al., 2021).

Technological Barriers: Not so surprisingly, technological barriers are not considered as a barrier to the adoption of Circular Economy. In fact, it was ranked among five lowest barriers, which is all the more assuring for International Businesses that are yet to transition. Had this been a major barrier, the practice of Circular Economy would have taken much longer, given that technological development across history has majorly been slow-moving (Rizos et al., 2021).

However, while technological development seems to be substantial and promising, the technical know-how to transition from linear to circular product life cycles remains limited. It has not been fully established that Circular Economy is more than just recycling—but also includes the process of defining business strategy, circular input, product design, and circular flows. International Businesses will need a multitude of innovations to better integrate circularity in industrial practices (Melati et al., 2021). Progression towards circularity will require a diverse range of skills and knowledge ranging from the designing of products that eliminate or minimize waste, the operation of new infrastructure, or the handling of new materials. Hence, training programs provided by experts, practitioners, or academicians need to be established in order to ensure that necessary capabilities, skills, and tools evolve (Rizos et al., 2021).

Regulatory Barriers: Lastly, one of the most concerning barriers were the obstructing laws and regulations, calling the attention of concrete regulatory work from policymakers (Rizos et al., 2021). Subsidies, financial institutions, and unchallenged external stakeholders who succor linear production processes are also major obstructions in the improvement of Circular Economy approaches and its financial competitiveness. Deterring regulatory frameworks is also a hinderance in the shift from linear business model. A report on regulation of packaging from the Association of Southeast Asian Nations (ASEAN) indicated that despite the numerous various regulations on waste management and recycling that ASEAN countries have, a solid coherence in policies is highly lacking with the current policy having only a limited impact in driving Circular Economy (United Nations Environment Program, 2019).

A stagnation in the implementation of the SDGs can also be attributed to the limited experience several international businesses have in organizing complex partnership portfolios, especially with NGOs and governments. Challenges arrive mainly at three intervention levels: Societal Level: Handling governance logics and co-creating government policies in support of sustainable development; Systems Level: identification of interaction effects and developing “smart” intervention strategies in creating shared values and selecting strategic SDGs; and Strategic Level: Alignment of the SDG strategy with core business (van der Waal & Thijssens, 2020) (Table 4).

6 Recommendations and Conclusion

6.1 Recommended Shifts that International Business Can Implement

Since it has been established that the characteristics of International Businesses clearly indicate a causative force that influences international economic relations, even though their impact is much robust, but remains undiscovered and

Table 4 A summary of the barriers in the implementation of Circular Economy; Source: Multiple Authors

| Sr. No. | Barriers | Aspects of the barriers |
|---------|---------------------------------|---|
| 1. | Constitutional | Ineffectual, weak, or dissuading policies, regulations, and laws, and fiscal measures; unquantifiable targets; vague and unfocused vision, pre-existing conditions for investment |
| 2. | Market and Economic | Monopolistic market conditions, insufficient information, subsidies, supplier leverage, relative cost of labor, materials, and energy, challenges in the operations of the take-back systems with multiple businesses involved, absence of standards and variable quality of refurbished products; in short of acceptance of “service” rather than ownership models by consumers; poor incentives, deficit of internalization of external costs; inflated upfront costs and inadequate short-term benefits that averting investment (Diaz Lopez et al., 2019; von Weizsacker et al., 2014). |
| 3. | Organizational Management | Inadequate engrossment from the leadership perspective on Circular Economy within businesses; organizational structures within businesses that impede the implementation of Circular Economy practices, insufficient existence of successful business models; lack of stronger relationships within supply chain; inclination to focus on recycling when other Circular Economy practices might be more resourceful, lack of a stronger strategy and focus, and insufficient funds (Bastein et al., 2014; Govindan & Hasanagic, 2018). |
| 4. | Behavioral, Social, and Culture | Practices of linear technologies that are deeply rooted; negative customer perceptions towards remanufactured products; “thrill” of newness, poor perceived control, lack of awareness, and the nature of aversion towards by existing market actors (Weber, 1997; Govindan & Hasanagic, 2018). |
| 5. | Technological | Challenges experienced in the process of ensuring product quality and sustaining product quality with recovered or remanufactured materials; inaccurate information on efficiency, e.g., energy-consuming appliances, obstructing them from making a rational economic, as well as resource-efficient, choice, undeveloped market technology market, cost of technology, lack of public awareness to participate in reuse, recycle, and remanufacturing; and the lack of necessary skills in workforce (Montalvo, 2002; Govindan & Hasanagic, 2018; Bringezu et al., 2017). |

Barriers in the transition phase: Secondary Barriers

While it is undeniable that the Circular Economy offers several economic benefits through the savings of material costs, the benefits might not be equally dispersed. There might be a few sectors, regions, or countries, especially those involved in extractive industries could be expected to invest in efficiency investments from which they are spared in the status quo, and such actors could potentially resist the transition (Ekins et al., 2019).

| | | |
|----|------------------|---|
| 6. | “Rebound Effect” | If measures adopted in Circular Economy led to cost savings, the extra investment could be spent on resource or energy-intensive products that would invalidate the original material or energy efficiency savings (Ekins et al., 2019) |
|----|------------------|---|

under-explored. The need of the hour in these organizations is to introduce and implement management driven changes to propel sustainable development. Below are recommendations on how this can be carried out.

Efficient use of potential instruments currently at the disposal of these international organizations and a better use of them in the development of quality aspects of the products. Overall quality improvement and increased transparency of formal systems and bodies created within these organizations. Intensifying international rules, especially with respect to the development of sustainable competitiveness, corporate social responsibility, counteracting corruption, abiding to the commitments, etc. A shift in the leaders' mindset of international organizations is required to enhance a sense of equality among the weaker members in the process of development of programs, strategies, etc. Observance of sustainable development guidelines by all global organizations in shaping International Economic Relations by programs, strategies, and legal institutions. A social shift in the focus of these international organizations as the foundation of the new International Economic Relations paradigm. Porter & Kramer (2011) claimed that global entities could strengthen both societal impact and competitiveness by reconceptualizing products and markets to meet unmet societal needs, shifting the focus on the productivity of the whole value chain to get rid of inefficiencies and alleviate risks and shifting the focus towards the development of mutually beneficial relationships, like that of developing the skills of suppliers.

6.2 Conclusion

In conclusion, the circular economy represents a new paradigm for sustainable business that prioritizes the use of resources and minimizes waste. By adopting circular economy principles, businesses can reduce their environmental impact, improve their reputation, and create new economic opportunities. However, implementing circular economy practices is not without challenges, and businesses must navigate a range of internal and external factors to successfully adopt circular economy principles. Through the lens of sustainability, this conceptual paper has explored the potential benefits of the circular economy for businesses, as well as the challenges they face in implementing circular economy practices. It has highlighted the importance of considering the full lifecycle of products and services, from design to disposal, in order to create a closed-loop system that minimizes waste and maximizes resource efficiency. The circular economy offers a compelling vision for a more sustainable and prosperous future, and businesses that embrace circular economy principles are likely to benefit from increased competitiveness, improved reputation, and reduced environmental impact. As the world continues to grapple with the challenges of climate change and resource depletion, the circular economy represents a powerful tool for businesses to create value and promote sustainable development.

Global issues including shortage of freshwater supply, rising global warming, ocean depletion and pollution, land degradation and loss of biodiversity are occurring at a pace faster than mankind's ability to resolve them (Stuchtey et al., 2016; Rockström et al., 2014). It is estimated that the total waste would rise up to 70%, by 2050, from its current, if immediate action is not taken (Hrabec et al., 2020).

Having gained considerable traction across the last few years, Circular Economy has evolved to be a new economic and development paradigm (Geissdoerfer et al., 2017). While the underlying principle of Circular Economy revolves around the "here and now," it also lays out a clear vision for a sustainable future, given that transiting to a more sustainable future is the need of the hour (Kirchherr et al., 2017). There also exists a lack of scientific data that indicate how profitable implementation of Circular Economy could be, in terms of investment and return, and impact metrics for organizations.

The principle of Circular Economy fosters the economic progression of manufacturing industries, thereby improving the social and environmental performance of the industry in a positive manner (Rebelato et al., 2017). By altering the regulatory, socioeconomic, and ecological landscape, International Businesses can adopt the sustainability strategy and transform the circular production model from the current traditional production model (Geissdoerfer et al., 2016). This research aims to augment the understanding of the various aspects of Circular Economy. With the growing bionomical agitation, resource scarcity, rigorous administrative rules and laws, increased market competitiveness and corporate social responsibility, adopting and implementing Circular Economy becomes essential at every organization (Cardoso de Oliveira et al., 2019). Existing and current literature focuses on how Circular Economy has a limited scope for improvement (Geissdoerfer et al., 2017; D'Amato et al., 2017) and that it still needs to be scrutinized further for more clarity (Lazarevic & Valve, 2017; Petit-Boix & Leipold, 2018). Based on these aspects, the government's role lies in maintaining equilibrium effectively with respect to practical difficulties and the need to devise and lay down appropriate policies at the legislative level to nurture the spirit of participation of the key stakeholders including the consumers, and businesses, through a bottom-up approach (Ghisellini et al., 2016). At a microscopic level, measures to conduct a Life-Cycle Assessment and pick renewable and recyclable resources based on product life extension should be undertaken. The renewal of waste and byproducts and their conversion into new and useful products should be recognized as an essential step alongside comprehensive service offerings to reduce consumerism, support recycling mechanisms, and extend product longevity (Chen, 2020). Adjustments in policies that back up prices, adjust tax rates, and production supply chains to meet the end agenda of reduction in production costs and restoration of consumer interest in products created within the Circular Economy.

There still exists a gap in literature in identifying and better understanding the association between Circular Economy and contemporary surfacing concepts such as the Performance Economy (Stahel, 2010), Sharing Economy, and new business models like the benefit corporations (Bocken et al., 2014). Moreover, the authentic impacts of initiatives under the Circular Economy, how they contribute alongside the

triple bottom line (Cannibals with Forks: The Triple Bottom Line of 21st Century Business, 1999) and promote impactful sustainability (Bocken et al., 2016) are yet to be explored. There is also an obligation to elucidate the holistic setting of sustainability, especially the impact and value of the three pillars of sustainability—the economic, environmental, and social dimensions.

While this chapter provides an insight into the relationship between the Circular Economy and sustainability and their influences over business models, and innovation and performance systems, there is still scope for deeper work in this regard.

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Anushka Lydia Issac With a background in Engineering [Hons.] and an MBA, Anushka Lydia Issac brings a unique perspective. Holding prestigious credentials such as an FHEA and a Lead IQA Certificate, she possesses the skills and knowledge to design, deliver, and assess high-quality learning experiences in higher education. She passion for understanding people and their personalities has propelled her to excel in communications and public speaking at an international level. As an Associate Faculty and Program Leader at Westford University College, she actively contributes to the development of students. Her Ph.D. research from the University of Plymouth, UK focuses on flexible work arrangements.

Analyzing Accountability of Weather Index Insurance Service in Attainment of Sustainable Development Goals: A Sustainable Accounting Perspective Review



Pankaj Singh , Ruchi Kushwaha, and Jyoti Kushwaha

Abstract The motive of the current chapter study is to inspect the accountability of weather index insurance (WII) service in the attainment of sustainable development goals in developing countries from the perspective of sustainability accounting. This chapter analyzes and review the evidence of existing WII literature in the context of sustainability accounting through content and thematic analysis method. Findings ratify that weather index insurance helps in the attainment of sustainable development goals (SDG 1: No Poverty; SDG 2: Zero Hunger; SDG 10: Reduce Inequalities; SDG 13: Climate Action; SDG 8: Decent Work and Economic Growth; SDG 15: Life on Land, SDG 17: Partnership for the Goals). The present chapter can be supportive of effective public-policy decision-making in the direction of formulation of better weather risk management policy. The outcome can also be helpful for sustainability planners, sustainability accountants, and sustainability auditors to acknowledge the role of weather index insurance in sustainable development goals. The chapter findings are based only on the context of sustainable development goal attainment through WII.

1 Introduction

Agricultural insurance has a \$30 billion global market, and through attaining Sustainable Development Goals (SDGs) like zero hunger and climate action, it plays a significant part in risk financing and aids in climate change adaptation

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(Vyas et al., 2021). Agriculture insurance is a multibillion-dollar sector that is expanding quickly. The insurance market alone was worth \$30 billion USD in 2019 (Wang, 2000). In many locations throughout the world, risks are anticipated to rise in frequency and intensity as a result of climate change, which is a significant cause of agricultural system instability (Bhatt et al., 2019).

One of the many knock-on benefits of insurance payouts is the lowering of hunger (Siwedza & Shava, 2020). As a result, among other risk management techniques, insurance is a crucial component of agricultural adaptation to climate change. Today's agricultural systems are exposed to a wide range of biotic and abiotic threats. The global smallholder farming systems experience a disproportionate number of losses due to pests and diseases in agriculture and livestock (Barrett et al., 2020; Herrero et al., 2020). At the same time, global food shocks are caused by climate change and weather extremes (Cottrell et al., 2019).

Agriculture insurance is a kind of defending the agrarian community from economic losses due to worries that may develop farming losses stemming from named or all unanticipated risks outside their control (Raju & Chand, 2008). In many developing countries, farming is a substantial economic activity and provides revenue and nutritional safety for rural households. Along with gathering the country's food requirements, the agrarian sector also contributes meaningfully to entire exports and provides many agro-based industries with their main raw materials.

The agrarian sector is essential to the rural community's way of life and has a significant impact on the growth of associated industries and the overall economy (Singh & Agrawal, 2020). Early and late monsoon arrival, shifting temperature and precipitation patterns, unfavorable climatic conditions, and weather variations have occasioned noteworthy financial losses due to crop failures and production problems (Da Silva, 2017). The majority of the agrarian population finds employment in agriculture, which also contributes expressively to the country's gross domestic product (Banerjee & Bhattacharya, 2011). About two-thirds of the population in a developing nation depend on the farming sector for employment, yet this industry is vulnerable to unfavorable weather changes (Singh & Agrawal, 2021).

The reduction of weather hazards in agricultural activities is important for rural development, especially in rainfed regions vulnerable to drought (Narayanan & Saravanan, 2011). Crop failure is typically caused by weather-related problems (Odening & Shen, 2014), hence such risks can be covered by crop and agriculture insurance. Effective insurance policies guarantee a climate safety net for farmers, stabilize farm revenue, and lower poverty (Sustainable Development Goal-SDG 1). According to Siwedza and Shava (2020), the welfare gains derived through insurance payouts can have a variety of knock-on consequences, including reducing hunger (Sustainable Development Goal-SDG 2). As a result, among other risk management techniques, insurance is a crucial component of agricultural adaptation to climate change, and agriculture insurance has served as an essential financial instrument for protecting farmers' yield risk in such circumstances (Rao, 2002).

The security of people's livelihood and income is a critical part of the insurance program in terms of the sustainable development of communities. The rise of worldwide initiatives and commitments toward sustainable development goal

accomplishment opens a new door to business corporations. In the modern governance system, insurance coverage plays a crucial role in providing social security to citizens in the form of reducing risks and minimizing the burden on social support systems (ILO, 2014). The public sector spends a lot of funds in the form of subsidies in publicly sponsored schemes for the welfare of their people (Kline & Moretti, 2014) as it is considered a custodian of social, environmental, and governance-related issues (Ball et al., 2014). The public sector provides various risk management policies in the form of subsidized crop insurance risk coverage in partnership with private firms to their citizens and civil society (United Nations, 2019).

1.1 Weather Index Insurance Service and Agriculture Sector

From the perspective of the agriculture sector, weather index insurance (WII) coverage significantly affects the farmers as well and influences positive impacts on farming (Miceikiene et al., 2019). Subsequently, the motive of weather index insurance is to shift the wealth and prosperity to the agrarian community by insuring the risk of crop losses incidence due to adverse weather occurrences (Mahul & Stutley, 2010). Various public and private organizations are testing and selling weather index insurance in developing countries to smallholder farmers for mitigating the socioeconomic impact of climate change risk (Burke et al., 2010).

Weather index insurance has improved the livelihood of farmers through poverty reduction besides contributing to overall rural economic growth in low-income countries (Barnett & Mahul, 2007; Skees, 2008; Collier et al., 2009). Weather index insurance has been executed in a number of developing and low-income countries at individual farmer level and institutional level, respectively, in Brazil (2001), India (2003), Malawi (2004), Colombia (2005), Mongolia (2006), Ethiopia (2007), Nicaragua (2008), Tanzania and Kenya in 2009 (Carter et al., 2014).

Weather index insurance is an effective tool for agriculture development and seems like a product that could benefit farmers (Sarris, 2013; Jensen & Barrett, 2017). Weather index insurance has the potential for promoting household food security through the social protection of farmers (Devereux, 2016) and reduces the poverty through direct cash transfer of subsidies to farmers (Jensen et al., 2017). Asfaw et al. (2017) pointed out that integrating weather risk and social protection tools has prime importance for poverty reduction. However, the targeted subsidized premium has more welfare impact and is cost-effective in poverty reduction than direct subsidy transfer (Chantarat et al., 2017; Hansen et al., 2007). Ricome et al. (2017) analyze that weather index insurance leads to welfare gain only for farmers placed in the driest region and subsidized weather index insurance is not the best possible use of public funds.

1.2 Mechanism of Weather Index Insurance Service

Weather index insurance assists in the social transformation of the rural area through distributive justice and social equity (Fisher et al., 2019). Bobojonov et al. (2014) find that farmers buying weather index insurance contract may have better access to credit and it catalyzes the rural development in Syria. Tadesse et al. (2015) assess that interlinking weather index insurance with credit would make it more accessible to the smallholder farmers and provide a safety net to poor people's from damages caused by natural disasters (Chantararat et al., 2008; Akter, 2012). The indemnity payments are based on values which obtained from an index that serves as a proxy for losses rather than upon the assessed losses of each individual policy holders, and payouts are made based on a predetermined scale set out in the insurance policy based on meteorological data (Singh & Agrawal, 2022). These weather parameters were acted as a proxy for crop yield in compensating the cultivators for crop losses (Bryla-Tressler et al., 2011). The mechanism of weather index insurance is based on predetermined statistical index that has developed on the basis of weather parameters before the beginning of the insurance period for estimating the deviations from the normal level of weather parameters (Barnett & Mahul, 2007) which based on local weather indexes which is highly correlated to local yields. The weather index-based agriculture insurance offers administrative advantages over traditional insurance on moral hazard (hidden action) and adverse selection (hidden information). Indemnity is triggered by predetermined patterns of reliable and independently verifiable weather indexes rather than actual yields (Skees, 2008).

Force majeure is generally intended to include occurrences beyond the reasonable control of a party, and therefore would not cover. It prevents one or both parties from fulfilling their obligations under the contract. Force majeure refers to a clause that is included in contracts to remove liability for natural and unavoidable catastrophes that interrupt the expected course of events and restrict participants from fulfilling obligations. Force majeure is a French term that literally means "greater force." It is related to the concept of an act of God.

Hedging weather risk ability and its impact on farmers increased the adoption of WII (Marr et al., 2016) and influenced agriculture technology uptake through WII adoption (Farrin & Miranda, 2015; Freudenreich & Mußhoff, 2018). Low awareness of WII benefits among farmers is the hurdle for adoption (Sinha & Tripathi, 2016) and risk aversion considerably increases the possibility of WII adoption (Jin et al., 2016). Educated and prosperous farmers were more likely to adopt WII (Hill et al., 2013) while farm income, savings, and family size positively correlated with adoption (Ntukamazina et al., 2017). Subsidized premium attracts the farmers for adoption of WII whereas adoption rate decreases with rise in premium loading (Mubhoff et al., 2018). Bogale (2015) assessed that WII adoption is high in farmers worrying about weather risk and better credit access. Better access to formal credit raises the propensity to participate in WII uptake (Fonta et al., 2018). Low adoption of WII at farmer level is the main problem in sustainability and scalability of WII.

1.3 Problem Formulation

It is noticeable from review of existing literature on WII that almost there is no concrete analysis previously carried out by scholars. It provides a sufficient analysis gap to perform an analytical review on chosen topic. Furthermore, this analysis is significant in contemporary scenario of attaining SDG through public-private sector efforts especially in developing nations. In addition, socio-environmental commitments of corporates and insurers play a very important role in sensitizing the civil society especially agrarian community about attainment of SDG (Ivanova-Gongne et al., 2022). Therefore, we have articulated our analysis problem as “Analyzing accountability of weather index insurance service in attainment of sustainable development goals: A sustainable accounting perspective review.”

1.4 Objectives of Chapter

In direction to address the abovementioned queries on accountability of WII service in the attainment of sustainable development goals, the following objectives are formulated:

- To visualize the role of weather index insurance in sustainable development
- To analyze the weather index insurance themes in the attainment of sustainable development goals
- To detect the significance of sustainable accountability assessment of weather index insurance service

1.5 Methodology of Chapter

In the present chapter, we have employed a two-phase methodology to carry out this analysis. In the first phase, qualitative content analysis is employed to analyze the WII literature. In the next phase, a thematic analysis is performed to identify the significant themes that affect the attainment of SDG through weather risk management tool, i.e. WII.

1.6 Organization of Chapter

The rest of the chapter is organized as follows. In the first phase, we start with a brief overview of the weather index insurance service. Second, we provide a review of related studies in the area of sustainability of WII. Third, sustainable accountability perspective of WII is discussed. Fourth, the scope of WII as a financial service in

ensuring sustainability. Fifth, an overview of WII in developed and developing nations is discussed. Sixth, a thematic analysis of WII themes in the context of sustainable development goals is presented. Seventh, a discussion is deliberated. At last, the conclusion is portrayed and further extensions are determined.

2 Review of Literature

The research area of WII studies is primarily based on the agriculture and insurance field at large but because of the diversified, technical, and interdisciplinary nature of the WII area, there is a lot of scope for further research in different fields (Singh, 2022). Moreover, WII studies were conducted in different contexts and perspectives on different subjects because WII studies exposed similarity in areas of climate change impact, weather risk mitigation, poverty alleviation, social welfare, and rural development while it revealed convergence in areas of environmental science, agricultural finance, agricultural economics, and sustainability accounting (Singh, 2014; Jain & Singh, 2023). Here is a brief overview of relevant WII past studies.

2.1 Impact of Micro Insurance on Agriculture Risk

The evolution of micro insurance is primarily attractive due to its capability of reducing the vulnerability of deprived persons from adverse income shocks. Although the “new generation” of micro insurance schemes seeking specific products that have financial sustainability, targeted the deprived persons and not suffered from problems of moral hazard and adverse selection (Mosley, 2001). Micro insurance could be used as a tool for eradicating rural poverty by insuring the agriculture risk. Appropriate micro insurance schemes are required for agriculture because traditional agriculture insurance schemes have their own limitations. Micro insurance facilitates better risk coverage to farmers for the reduction of rural poverty (Kapoor & Ojha, 2006).

The innovative risk management policies in the form of agriculture insurance have links with financial inclusion by providing risk coverage to poor households. Enhanced credit facilities for farmers and the promotion of agriculture insurance in rainfed areas mitigate the farmers’ yield risks. Typically fair insurance is expected to have a balance between the premiums collected and the payouts as claims. The premiums collected are also expected to take care of the cost of administration cost that arises in the entire process. The financial burden depends on the premium regime. It is to be admitted that a higher and actuarial premium may be unaffordable for marginal farmers, especially small farmers. Also, risk mitigation in agriculture is beneficial to not only the farmers who grow the crop but also the society at large.

2.2 Sustainable Accountability Assessment of WII Service

Sustainability accounting helps in the measurability of weather index insurance impact on farmers in the context of social and environmental accounting. However, the sustainability concept is closely related to governance and public policy matters in terms of economic, social, and environmental systems (Atkinson, 2014). Although, weather index insurance has a significant role in promotion of sustainable development in low-income countries (Bryla & Syroka, 2007) by insured the risks of sustainable agriculture. Moreover, sustainable services have not only fulfilled customer demands but also minimize the negative impact on social and environmental systems. Sustainability accounting is the sub-set of non-conventional accounting that comprises ESG dimensions of sustainability and is closely related to public policy matters in terms of economic, social, and governance (ESG) systems (Atkinson, 2014). Sustainable accountability assessment is based on the operational impacts of policy or action on environmental, social, economic, and governance aspects related to ESG parameters. Moreover, the concept of sustainability accounting is based on three main pillars: environment, society, and governance (ESG) for people, planet, and profits, respectively (Roberts & Cohen, 2002).

The issue of ESG is a matter of interest for the public sector because of risk management concerns in favor of the general public and civil society (Galbreath, 2013). Moreover, the ESG framework is very helpful in the sustainability assessment of public policy in terms of impact analysis (Hacking & Guthrie, 2008). Moreover, sustainable accountability assessment is very useful to assess the significance of public governance efforts for attaining the relevant SDG, especially in developing countries (Kaur & Lodhia, 2019). Sustainability reporting issues are more significant in the accountability of environmental and social action (Sciulli, 2011). Sustainability reporting practice is used to address environmental and social challenges, especially in developing countries (Dissanayake et al., 2021). Moreover, social impact assessment of public interest activity is crucial in reporting social accountability (Yang et al., 2021). However, accountability of public governance action is more important for the public sector (Grossi & Steccolini, 2014) from the perspective of social care policies (Bracci, 2014).

2.3 Sustainability Challenges of Weather Index Insurance Service

Theoretically, WII is financially sustainable but in practice, it is not commercially feasible because of the problem of scalability. However, the pilot projects of WII have got successful because their insurance contract is specifically developed and designed by experts for fulfilling the local needs but their generalization is not practically possible at a wider level because of the changing needs of farmers for different places and different climatic conditions (Hellmuth et al., 2009). Although

the WII has different probable benefits its execution is very difficult (Hazell et al., 2010). An ideal design of WII contract can protect the interest of both farmer and the insurer. Although the framing of effective design for high-quality insurance contracts of WII is a very challenging job. Moreover, practically it is more difficult for farmers to understand the complex mechanism of WII contract (Carter et al., 2014).

The public sector has an important role in risk-sharing related to agriculture in favor of the public interest because a large number of agrarian and rural populations depend on farming activities (Skees & Barnett, 2006). It is governments' fundamental responsibility to provide risk protection to their citizens from various weather and climate risks in the form of risk management policy. Insurance risk transfer is the conventional risk management policy, utilized as a tool to mitigate the risk of unpredictable and uncertain losses (Fisher & Surminski, 2012). The accounting for sustainable development is basically interdisciplinary in nature that is related to the number of multi-disciplines from society, environment, climate change to governance and policy perspectives.

Although, accountability is an essence of good governance that assess public policy actions in terms of socially responsible and responsive governance (Bovens, 2007). Moreover, the accountability mechanism provides a righteous pathway to both public and private authorities and avoids them from departing on the wrong path (Bovens, 2010). In this direction, accountability assessment of publicly sponsored policy is crucial to measure the sustainability performance of risk management policy. Public sector sponsorship is crucial in global vital issues like climate change risk and social disparity through subsidizing and sponsoring the concerned public policy. Moreover, the public sector is responsible to develop a sustainable society for their citizens in the form of public policy (Atkinson, 2014) in which society–environment interfaces concern about ecological integrity, social equality, and economic prosperity. Furthermore, weather index insurance is an important risk management policy that can be helpful for the farming community and also beneficial for society. However, there is an emerging challenge in the public sector regarding accountability of public risk management policy toward particular environmental issues; specifically in the case of climate change impact risk on various segments of society (Milne & Grubnic, 2011).

Every economic organization aspires to satisfy client wants by offering goods and services while also making sure that sufficient records are preserved for the purpose of accountability (Kushwaha et al., 2022). The management of every firm must also be accountable to the owners for their financial performance-focused operations under an agency relationship (Elkington, 2006). The focus of management's responsibility has changed; however, with the introduction of sustainable accounting and in accordance with the stakeholders' theory, to include the disclosure of their non-financial activities to all stakeholders (Gnanaweera & Kunori, 2018). The idea of sustainability accounting and performance reporting centers on the disclosure of accounting data on the three performance pillars of businesses: economic, environmental, and social concerns. The external stakeholders, such as government organizations, suppliers, and investors, place importance on these essential areas as well (Hahn & Kühnen, 2013). Due to demand from numerous stakeholder groups, it has

changed from merely having a financial duty to its shareholders to also having social and environmental responsibility (Ijeoma & Oghoghomeh, 2014).

3 Sustainable Accounting Perspective in Measuring Sustainable Service Performance

The sustainable production and consumption of goods and services are the classical conditions for sustainable development in which the society–environment interface is concerned with ecological integrity, social equality, and economic prosperity (Bebbington & Larrinaga, 2014). Sustainability accounting is the measurement of organization’s accountability in the context of their business performance toward the perspectives of human, social, and natural capital (Lamberton, 2005). The impact of climate change risk has suddenly emerged and significantly influenced the social, environmental, economic, and governance aspects of sustainability accounting (Thomson, 2014). Measuring the sustainable performance of business practice is too technical in nature for accountants (Egan & Tweedie, 2018). However, professional sustainability accountants perform a significant role in the accounting and reporting of sustainability information by fulfilling the research and practice gap in sustainability accounting.

Moreover, the emergence of the sustainability assurance market creates an opportunity for professional accountants. Sisaye (2011) articulates that sustainability accounting is closely related to ecology and sociology with a focus on the environment and society in general. Adams and Larrinaga (2019) suggested the need for additional research in the area of sustainability accounting to address the sustainability challenges for sustainable development. Recently, studies pointed out the need for further research on sustainability accounting for the larger interest in societal, environmental, and governance issues (Lodhia & Sharma, 2019).

The idea of sustainability accounting combines the social, environmental, and economic aspects of an organization’s operations. By presenting non-financial information about the organization, it is regarded as the field of accounting that requires organizations to pay attention to environmental, social, and governance issues (Hsiao et al., 2022). Compared to financial reporting, sustainability accounting and reporting is a novel idea. The idea was created to bring together a company’s operations and their immediate impact on all of its stakeholders. Sustainability reporting is characterized as a mechanism for analyzing and publishing a company’s performance in achieving economic, social, and environmental standards (Elkington, 2006). Based on the review of the literature, a theoretical framework is presented in Fig. 1.

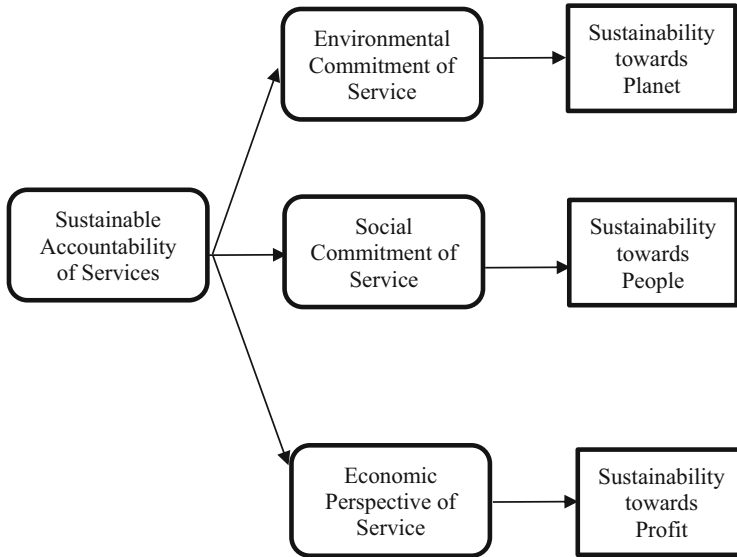


Fig. 1 Sustainable accountability framework of services

3.1 Need and Significance of Sustainability Accounting

The emergence of sustainability accounting fulfills those deficiencies that are neglected by the traditional accounting system (Burritt & Schaltegger, 2010). Sustainable development is possible in favor of larger public interest only through sustainable business activity (Khan, 2013). However, organizations have to make a balance between corporate sustainability with environmental and social sustainability (Aras & Crowther, 2009). Furthermore, sustainability accounting emerged as a trans-disciplinary area from the perspective of social and environmental accounting (Gray, 2010). Lange & Kerr (2013) pointed out non-financial accounting as the financial language of society in terms of sustainability practice and reporting. Gray (2006) pinpoints the need for value creation in reporting social, environmental, and sustainability accounting information.

Adams and Larrinaga-González (2007) emphasized on measuring the exploitive operations of organizations in terms of sustainability accounting. Burritt and Schaltegger (2012) assess the sustainability accounting for agriculture and industrial production. Moreover, sustainability accounting is aspirational because it motivates and engages corporates toward sustainability (Busco et al., 2018). Sisaye (2011) pointed out the ecological approach of sustainability for the reporting of social and environmental accounting information. Dagiliene and Štutienė (2019) articulate the need for a sustainability accounting information system for reporting of non-financial information.

Although, sustainability information management is crucial for sustainability accounting (Schaltegger & Zvezdov, 2015). Sustainability accounting is the

performance measurement of sustainable business activities on the basis of sustainability indicators (Kaur & Lodhia, 2019). However, the standards and indicators of sustainability assurance play a vital role in sustainability accounting (Farooq & Villiers, 2019). Hahn and Reimsbach (2014) argued about to making balance between the “accounting view” and “sustainability view” for the disclosure of sustainability information. Although, accounting and accountability both play a vital role in the implementation of sustainability initiatives.

3.2 Global Reporting Initiative and Sustainability Reporting Standard for Insurance Firms

Such disclosure is important because it makes it evident how much businesses care about society, the environment, and other stakeholders. The level of sustainability and performance reporting is gauged using standards that have been set in place as guidelines. The Global Reporting Initiative’s (GRI) sustainability reporting standards are the ones that are most frequently accepted (Palit, 2018; Aifuwa, 2020). Insurance firms’ goal is to cover risks and distribute losses so that risks are shared, reducing the costs that unfortunate events place on individuals or organizations (Krstić, 2013). The principles of sustainable insurance initiative, launched in 2012 by the United Nations Environment program finance initiative (UNEP, 2012), were intended to achieve sustainable development goals with a four-principle framework for the global industry to address environmental, social, and governance issues. The insurance industry has a significant role to play in building resilient and sustainable communities and economies. These four (4) cardinals’ principles serve as a guide for the industry’s involvement in sustainable development on a global scale (UNEP, 2012).

On a global scale, the insurance business is expected to embrace and abide by the Global Reporting Initiative’s (GRI) standard rules for addressing sustainability issues; this is crucial given that these guidelines must be widely accepted (Ijeoma & Oghoghomeh, 2014). However, the examination of the insurance business internationally shows that the sector is struggling with quality reporting and corporate responsibility governance (Li, 2018). Insufficient insurance company resources, ambiguous governance structures and rules, and a lack of individual accountability are additional significant obstacles that organizations face when implementing a sustainable agenda (Zona et al., 2014). According to the UNEP initiative reports, natural disasters and climate change are major global concerns that present a significant challenge to the insurance sector. Natural catastrophes are occurring more frequently and severely, and their effects on the poor and vulnerable populations in developing and rising countries are disproportionate (Krstić, 2013). According to GRI reporting rules, these environmental concerns have a significant impact on the insurance industry’s performance.

There is a need for those organizations that benefit from such surroundings to address the environmental issue since environmental activities have major negative effects on both the environment and humans. Sustainability accounting makes sure businesses are doing everything possible to safeguard the environment and are accurately reporting their efforts (Hsiao et al., 2022). According to Raimi et al. (2022) study, industrial operations have a negative impact on the environment and cause significant discomfort for locals, particularly in areas where oil is produced. The interaction between organizations and their environment will improve as a result of their participation in sustainable initiatives and activities (Aneke & Inyama, 2022). The effect of sustainability reporting is defined by Buallay (2022) as a systematic instrument for compiling and presenting sustainability information required for the management process that is beneficial to all stakeholders. Therefore, management must be open and honest while making the best choices and providing the pertinent data for sustainability reporting standards. This is the path forward that ensures sustainable reporting standards worldwide (Gnanaweera & Kunori, 2018).

Ijeoma and Oghoghomeh (2014) assessed the impact of corporate social responsibility on organizational performance reporting in a sample of firms and found that environmental issues received little attention. They recommended that businesses continue to report on their environmental performance because doing so would eventually contribute to sustainability. Akanno et al. (2015) looked at the various socio-environmental responsibility activities that Nigerian commercial banks and insurance companies disclosed as well as the factors that affected how much information was disclosed in these companies' annual reports and financial statements. Findings showed that banks published more information on community involvement and human resources, but very little on environmental practices. They also showed that the banking business disclosed more information than the insurance industry, which disclosed the least (Jizi et al., 2014).

4 Scope of WII as Financial Service in Insuring Sustainability

WII service seems multi-dimensional in nature as WII plays a very prominent role in weather risk mitigation, poverty eradication, securing farming income, livelihood protection to rural communities as shown in Fig. 2.

4.1 Role of Financial Service in Climate Change Risk Mitigation

The concern for ecological and agricultural sustainability is more crucial for policy planners in view of climate change risk (Ogilvy, 2015). Globally climate change

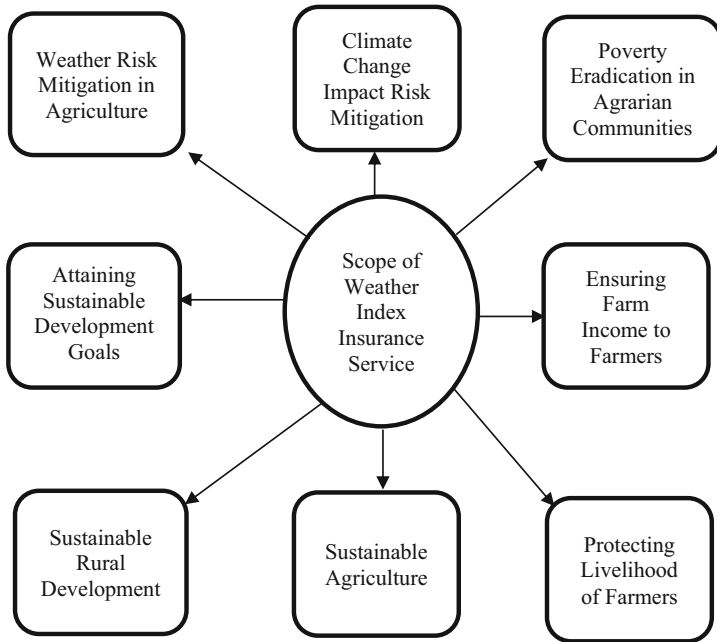


Fig. 2 Scope of weather index insurance service

adaptation is an important issue for sustainable development. The financial necessity for mitigation and adaptation of climate change is wide and uncertain. However, regional institutions are the potential sources for raising the funds for climate change adaptation through financing arrangements for a specific region (Sharan, 2008). The developed and developing countries’ governments both are financing climate change adaptation. However, an effective sustainability accounting system is needed which helps in monitoring funds allocation and disbursement for developed and developing nations (Tirpak & Parry, 2009).

Climate change risk has a devastating influence on natural and human systems through global warming that changed the entire ecosystem. However, the impacts of climate change are closely related to sustainable development that balanced social welfare, environmental security, and economic prosperity. Climate finance has an important role in attaining certain sustainable development goals through climate change adaptation and mitigation (Micale et al., 2018). However, financing for climate mitigation is a very challenging job for the government (Bouwer & Aerts, 2006) because adaptation to climate change is perceived as an additional financial burden especially in developing countries (Ackerman, 2009). Thus, climate finance can play an important role in climate change negotiations at the international level among countries (Zadek, 2011). However, the prioritization and distribution of climate adaptation funds between developed and developing countries is a very complex task (Muccione et al., 2017).

4.2 Sustainable Development Perspective of WII

Climate change is closely related to development activities and priorities in terms of social, environmental, and economic costs (Tubiello, 2011). Mostly development action creates environmental damages that turn into climate change risks. Thus, any kind of development is not sustainable in the climate change situation. However, climate change has interrupted the supply of agricultural produce by decreasing crop yields (Fragoso & Noéme, 2018). Therefore, sustainable development and climate change adaptation are equally important at every stage of development action. Weather index insurance appears as a wider developmental perspective for sustainable growth that is important not only for climate change mitigation and climate policy management but also crucial for climate-smart agriculture.

From a sustainability viewpoint, WII protection has a more extensive degree and the possibility to accomplish seven SDGs out of seventeen through sustainability indicators (Klapper et al., 2016). WII helps in the decrease of rural poverty eradication (SDG 1: No poverty) by providing risk cover to farmers and simultaneously assists insurers to foster a successful WII design for climate change variation (SDG 13: Climate action; SDG 15: Life on land). Additionally, WII assists smallholder farmers to purchase food in the occasion of their own yield being harmed (SDG 2: Zero hunger). Furthermore, WII coverage for poor and marginal farmers can help in decreasing their income inequalities (SDG 10: Reduce inequalities) (SEI, 2018). Thus, WII plays a very significant role in the attainment of certain SDGs as depicted in Fig. 3.

Weather index insurance effectively emerges as the climate-related insurance product for different stakeholders of agriculture, livestock, and disaster risk (Hamilton, 2004). However, due to the uncertainty about the impact of climate change, the assessment of yield losses is very difficult on the basis of historical weather and yield data. The market for weather index insurance has continuously expanded especially in disaster-prone areas in developing countries. Although, the weather index insurance market has relatively mature in developed nations as compared to low-income countries. Apart from insurers and reinsurers, several institutions have engaged in the weather index insurance supply chain including banking, financial, meteorological institutions, donors, and other supporting organizations (Sandmark et al., 2013). However, the government has a primary role in weather index insurance as an underwriter with public and private insurers in both developing and developed nations.

5 Overview of WII in Developing and Developed Nations

Weather index insurance is a type of crop insurance that provides coverage to farmers against weather-related risks, such as droughts or floods that can adversely impact their crop yield and income. This type of insurance pays out based on a

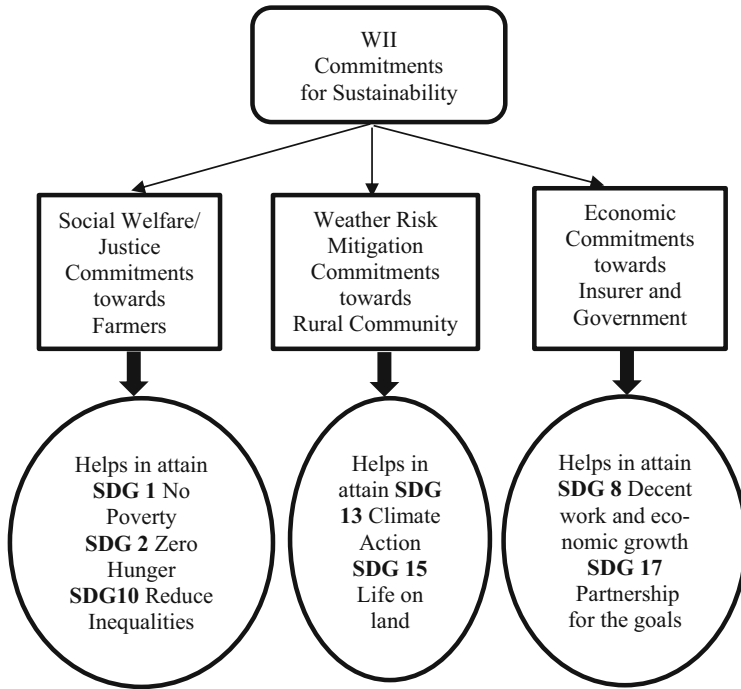


Fig. 3 Weather index insurance commitments toward sustainability

predetermined weather index, such as rainfall or temperature, rather than actual crop loss assessments.

5.1 Status of WII in Developing Nations

In recent years, there has been increased interest in weather index insurance in developing countries, as these countries are often most vulnerable to weather-related risks and have limited access to other types of insurance. Some countries, such as India and Kenya, have made significant progress in developing and implementing weather index insurance programs. For example, the Indian government has launched the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme, which provides farmers with subsidized crop insurance based on weather indices (Singh & Agrawal, 2020). Similarly, the Kenyan government has launched the Kenya Livestock Insurance Program (KLIP), which provides livestock farmers with insurance based on drought conditions (Carter et al., 2014). Other countries, however, have faced significant challenges in implementing weather index insurance programs, such as a lack of infrastructure, limited data availability, and difficulty in defining relevant weather indices. In some cases, weather index insurance programs have also faced

Table 1 WII status in developing countries

| S. No. | Country | Year | Policy holder | Project name | Instrument | Scalability |
|--------|-----------|------|------------------------------------|-----------------------------|-----------------------------|-------------|
| 1. | Brazil | 2001 | Farmers in govt. seed program | Agro Brasil | Area-based yield index | 15,000 |
| 2. | Ethiopia | 2007 | Teff bean farmer | HARTIA | Rainfall index | 300 |
| 3. | India | 2003 | Smallholder farmers | World Bank, ICICI Lombard | Rainfall, temperature index | 1,50,000 |
| 4. | India | 2004 | Smallholder farmers | Agriculture insurance corp. | Rainfall temperature index | 10,00,000 |
| 5. | Kenya | 2009 | Smallholder farmer | Rockefeller | Rainfall index | 500 |
| 6. | Kenya | 2009 | Maize and wheat smallholder farmer | Kilimo Salama | Rainfall index | 200 |
| 7. | Malawi | 2004 | Maize and groundnut farmers | World Bank Opportunity Intl | Rainfall index | 1700 |
| 8. | Malawi | 2008 | Maize farmers | Micro Ensure | Rainfall index | 2500 |
| 9. | Mongolia | 2006 | Herders | IBLIP | Livestock index | 5000 |
| 10. | Nicaragua | 2008 | Smallholders | World Bank | Rainfall index | 200 |
| 11. | Rwanda | 2009 | Smallholders | Micro Ensure | Rainfall index | 500 |
| 12. | Tanzania | 2009 | Smallholders | Micro Ensure | Rainfall index | 400 |
| 13. | Thailand | 2007 | Smallholders | BAAC | Rainfall index | 400 |

Source: Carter et al. (2014)

Source: Author own elaboration

low demand from farmers due to a limited understanding of insurance concepts and mistrust of insurance providers (Miranda & Farrin, 2012). However, the status of weather index insurance varies widely across countries and regions as shown in Table 1.

Overall, the status of weather index insurance in developing countries is mixed, with some countries making significant progress while others continue to face significant challenges. However, the potential benefits of weather index insurance in reducing farmers' vulnerability to weather-related risks and increasing agricultural productivity make it an area of ongoing interest and research (Carter et al., 2017).

5.2 *Status of WII in Developed Nations*

In developed countries, weather index insurance has been gaining popularity in recent years, particularly in the agriculture sector. The United States and Canada have been at the forefront of developing and implementing weather index insurance programs, with many private insurance companies offering policies that cover losses due to adverse weather conditions (Hazell et al., 2010; Vroege et al., 2019). In Europe, weather index insurance is also gaining traction, particularly in countries where agriculture is an important part of the economy, such as France, Spain, and Italy (Vroege & Finger, 2020; Cafiero et al., 2007; Salgueiro & Tarrazon-Rodon, 2021).

In these countries, both private insurance companies and government agencies are involved in the development and implementation of weather index insurance programs. In Australia, weather index insurance has been used in the agriculture sector for several years, with many farmers purchasing policies that cover losses due to drought or other weather-related events (Adeyinka et al., 2016). Globally, the use of weather index insurance in developed countries is growing, particularly in sectors such as agriculture, where weather conditions can have a significant impact on livelihoods and profitability. While there are still challenges to be addressed, such as the development of accurate and reliable weather data, the outlook for weather index insurance in developed countries is generally positive.

6 **Thematic Analysis of WII for Relevance to Sustainable Development Goals**

Weather index insurance has effectively mitigated the environmental risk of agriculture, protect the farm income of farmers, secure social protection and welfare for rural communities. Thus, weather index insurance is a financial product that is economically viable, environmentally feasible, and socially responsible for the mitigation of disasters and climate change risks. However, weather index insurance is directly related to sustainability accounting in terms of social, environmental, governance of climate change risk and policy-related issues (Hazell et al., 2010). It has been observed from the thematic content analysis that accountability of weather index insurance is relevant to different sustainability criteria as shown in Table 2. These themes were obtained from WII literature as shown in Table 3.

These sustainability dimensions are very much similar and tailored to economic, social, and governance (ESG) guidelines. However, corporate sector contributions are more important to attain sustainable development goals (Silva, 2021). In that aspect, weather index insurance has a wider scope and possibilities to achieve seven sustainable development goals (SDG) out of seventeen through sustainability indicators (Klapper et al., 2016). Weather index insurance helps in the reduction of rural poverty (SDG 1: No poverty) by providing risk cover to farmers and at the same time

Table 2 Relational analysis of sustainable accountability of WII

| Sustainability dimensions | ESG factors | Triple bottom line | WII relevance with Sustainable Development Goals (SDG) | Sustainability indicators in WII | WII stakeholders | Sustainability impact for WII as financial product |
|--|-------------|--------------------|---|--|---|--|
| Social sustainability dimension | Social | People | SDG 1 No poverty SDG 2 Zero hunger SDG 10 Reduce inequalities | Social justice Social welfare Social inclusion | Farmers | Socially responsible product for social capital |
| Environmental sustainability dimension | Environment | Planet | SDG 13 Climate action SDG 15 Life on land | Weather risk Disaster risk Climate change | Community | Environmentally feasible for natural capital |
| Economic sustainability dimension | Governance | Profit | SDG 8 Decent work and economic growth SDG 17 Partnership for the goals | Sustainable profitability and scalability | Insurer Government Financial Institutions | Economically viable to financial capital |

Source: Extracted from SEI (2018) and elaborated by authors

helping insurers to develop an effective weather index insurance design for climate change adaptation (SDG 13: Climate action). Moreover, weather index insurance also helps to ensure that smallholder farmers can buy food in event of their own crop being damaged (SDG 2: Zero hunger). In addition, providing index insurance risk coverage facilities to poor and marginal farmers can help in the reduction of inequalities (SDG 10: Reduce inequalities) (SEI, 2018).

7 Discussion and Findings

No doubt that weather index insurance has the potential for effective reduction of rural poverty through insuring the crop risk but at the same time also possesses congenital specific technical limitations (Singh et al., 2023). Although weather index insurance is an important and effective tool for mitigation of climate risks and disaster events, also it can be inappropriate in various conditions (Hellmuth et al., 2009). However, it is a very challenging job for the government to construct an effective regulatory environment and monitoring mechanism for better governance of weather index insurance under public-private partnership (Singh et al., 2021a, b).

Moreover, weather index insurance helps in the mitigation of climate change risk and effective sustainable development as well as crucial for climate policy management. The efficacy of WII is satisfactory in developed countries as compared to developing countries in terms of their positive impacts on the agrarian community. There is a need to enhance insurance literacy and WII awareness among farmers, especially in developing countries in a direction to overcome different challenges. Weather index insurance can play an important role in attaining several sustainable development goals (SDGs), as mentioned below:

SDG 1: No Poverty: Weather index insurance can provide a safety net for small-scale farmers who are vulnerable to climate risks such as droughts and floods, reducing the likelihood of poverty.

SDG 2: Zero Hunger: Weather index insurance can help farmers to maintain their crops in the face of weather-related risks, ensuring food security and reducing hunger.

SDG 8: Decent Work and Economic Growth: Weather index insurance can help to stabilize the incomes of small-scale farmers, enabling them to invest in their businesses and improve their livelihoods.

SDG 10: Reduce Inequalities: Weather index insurance can help to reduce income inequalities and livelihood disparities among farmers in agrarian and pastoral communities.

SDG 13: Climate Action: Weather index insurance can encourage farmers to adopt climate-resilient practices and reduce their greenhouse gas emissions, contributing to climate action.

SDG 15: Life on Land: Weather index insurance can reduce the pressure on natural resources such as forests, as farmers who have insurance are less likely to engage in practices that contribute to deforestation.

SDG 17: Partnership for the Goals: Weather index insurance helps in worldwide partnerships for sustainable development in different parts of the world.

Conclusively weather index insurance can play a critical role in achieving sustainable development goals by promoting economic growth, reducing poverty and hunger, and encouraging climate-resilient practices. The abovementioned weather index insurance sustainability indicators are beneficial as sustainability impact its different stakeholders in the form of social, environmental, and economic perspective. The social sustainability impact of weather index insurance is based on its contribution to rural development as a socially responsible product. While the environmental sustainability impact of weather index insurance is related to its contribution to natural capital as ecological feasibility for agriculture, the economic sustainability impact is related to weather index insurance viability toward financial capital.

8 Conclusion

This chapter is an attempt to explore and analyze the relevance between weather index insurance and sustainability accounting through a thematic analysis. It is noticeable from the analysis that weather index insurance directly helps in the attainment of SDG 1-No Poverty; SDG 2-Zero Hunger; SDG 8-Decent Work and Economic Growth; SDG 10-Reduce Inequalities; SDG 13-Climate Action; SDG 15-Life on Land; SDG 17 Partnership for the Goals.

It has been observed from the analysis that weather index insurance studies have been based on a broader range of areas that varied from economic, social, and environmental to governance. In the context of sustainability accounting perspective, weather index insurance studies show a transformation shift from a financial perspective to a sustainability perspective with focusses on social, economic, governance, and environmental aspects.

From a social perspective, weather index insurance has significant welfare impacts on farmers' livelihoods (Fisher et al., 2019; Hansen et al., 2007). Moreover, empirical evidence shows that weather index insurance is a cost-effective technique as commercial insurance for offering social security to farmers and the development of the livelihood of rural families. From an environmental perspective, weather index insurance is an important and effective tool for the mitigation of environmental risks and disaster events (Hellmuth et al., 2009). Although, weather index insurance supports the mitigation of climate change risk and effective sustainable development as well as crucial for climate policy management.

From an economic perspective, public and private sector investment is needed for climate finance to attain the scalability and sustainability of weather index insurance (Budiman et al., 2016). However, the deficiency of finance for climate change

adaptation at the farmer level is an important constraint for sustainable development (Ochieng et al., 2016). From a governance perspective, it is a very challenging job for the government to construct an effective regulatory environment and monitoring mechanism for better governance of weather index insurance under the public-private partnership.

The outcomes of this chapter contribute to the systematic theory building of WII literature in terms of sustainability accounting. The findings of the chapter would be helpful to other scholars to conduct further research on the attainment of SDG through insurance or other risk mitigation instruments.

8.1 Limitations

As any other study, this chapter also possesses certain limitations (Rajput et al., 2022; Kushwaha et al., 2023). This study is based on the review of evidence from weather index insurance literature specifically in the context of sustainable development goals. This study provides insights from existing WII literature from the perspective of sustainable accounting literature. This entire study mainly focuses its attention on the attainment of sustainable development goals through WII service.

8.2 Further Avenues

The following concerns are the major issues for further exploration on accountability of weather index insurance in perspectives of sustainability accounting. Thus, future WII studies needed careful consideration and focused research for increasing WII efficacy as a result-oriented climate risk management tool (Singh & Agrawal, 2019). Further exploration is required to explore the role of weather index insurance in the attainment of sustainable development goals.

Additional investigation is needed to identify the relevance of weather index insurance in the context of sustainability accounting as a financial product. Also, there is scope for research to measure the interrelationship of sustainability accounting with weather index insurance.

Appendix

Table 3 Economic, environmental, and social themes in WII literature

| Economic perspectives (No. of articles) | Environmental perspectives (No. of articles) | Social perspectives (No. of articles) |
|--|---|--|
| <p>*Agricultural economics (29) Agriculture financial risks (3) Weather derivative (17) Subsidized insurance (2) Agriculture micro insurance (7) *Source Journals Applied Economics Agricultural Economics Experimental Economics Annual Review of Economics Agricultural Economics Review Journal of Agricultural Economics Journal of Agricultural and Resource Economics American Journal of Agriculture Economics</p> | <p>*Climatology (22) Climate risk (10) Climate change (9) Climate insurance (1) Climate uncertainty (2) *Source Journals Climate and Development Climate Risk Management Journal of Agrarian Change Regional Environment Change Global Environmental Change Weather and Climate Extremes Economic and Political Weekly Theoretical and Applied Climatology Mitigation and Adaptation Strategies for Global Change Sustainability Accounting, Management and Policy Journal</p> | <p>*Social welfare (7) Poverty trap (1) Social protection (2) Social inclusion (1) Addressing social equity (1) Welfare impacts on household (2) *Source Journals Development Policy Journal of Peasant Studies Journal of Development Studies African Journal of Food, Agriculture, Nutrition and Development</p> |
| <p>*Risk finance (12) Risk hedging (11) Managing financial risks (1) *Source Journals Ecological Economics The Journal of Risk Finance China Agricultural Economic Review Insurance Mathematics and Economics The Geneva Risk and Insurance Review</p> | <p>*Environmental science (7) Environmental risk (1) Environmental constraints (1) Water resource management (5) *Source Journals Environment and Planning Agricultural Water Management Journal of Environment and Development Environmental and Resource Economics</p> | <p>*Rural welfare (12) Rural development (2) Rural poverty reduction (1) Rural farmers country specific (9) *Source Journals Developing Country Studies International Journal of Rural Management The World Bank Economic Review Journal of Agriculture and Rural Development in the Tropics and Subtropics</p> |
| <p>*Agricultural finance (8) Agriculture loan (2) Agriculture credit (5)</p> | <p>*Disaster studies (6) Disaster risk (3) Disaster safety net (1) Response to disaster (2)</p> | <p>*Agrarian welfare (5) Agriculture development (1) Benefits of crop insurance (4) *Source Journals</p> |

(continued)

Table 3 (continued)

| Economic perspectives (No. of articles) | Environmental perspectives (No. of articles) | Social perspectives (No. of articles) |
|---|---|--|
| Agriculture microfinance (1) *Source Journals Agricultural Finance Review The Quarterly Journal of Economics The Review of Finan- cial Studies | *Source Journals Environmental Hazards International Journal of Disaster Risk Reduction International Journal of Disaster Risk Science | Agricultural Systems Weather Climate and Society International Food and Agribusiness Management Review |
| *Developmental eco- nomics (4) Innovations in insur- ance (1) Farm technology adop- tion (3) *Source Journals Journal of Development Economics Journal of Agricultural Economics Agricultural and Resource Economics review | *Meteorology (15) Satellite data (5) Remote sensing (7) Meteorological indices (1) Meteorological risk and data (2) *Source Journals Remote Sensing Meteorological Applications Journal of Agro Meteorology Journal of Meteorological Research American Meteorological Society Bulletin of the American Meteorological Society | *Development studies (8) Public safety nets (2) Cash transfer program (3) Insurance based development (2) Satisfaction to farmer and govern- ment (1) *Source Journals World Development Journal of Development Effectiveness Journal of Development Economics Applied Economic Perspectives and Policy Geneva Papers on Risk and Insurance-Issues and Practice |
| *Food economics (3) Yield losses (3) *Source Journals Agricultural Economics Natural Hazards Agricultural and Food Economics | *Geoscience (4) Geospatial data (3) Geographical information system (1) *Source Journals Sensors Biosystems and Engineering | *Food policy (2) Food security (2) *Source Journals Food Policy Risk Analysis |
| Total 56 articles | Total 54 articles | Total 34 articles |

Source: Extracted from Scopus database and compiled by authors

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Refurbished Products and Green Mindfulness: A Qualitative Study from an Emerging Market



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Abstract There is a growing attention to sustainability among both academics and practitioners. Governments and conscious consumers force companies to implement policies for environmental protection and social welfare into their organizational structures. This study aims to understand sustainable consumption behaviors and, more specifically, consumers' intention to purchase refurbished products (i.e., a returned product which is updated with new parts and has the same quality as the new one) and its relationship to green mindfulness in the context of B2C market. Previous studies show that consumers with high environmental awareness prefer refurbished products in developed countries. We investigated and discussed this result in the context of an emerging country, Turkey, that has not yet established sufficient policies for sustainability and is in a deep economic recession currently. We carried out 18 in-depth interviews with consumers in Turkey. The analysis benefited from abductive research. We also classified our themes and sub-themes under the stimulus–organism–response framework. Findings indicate that stimuli consist of crises (Covid-19 and economic downturn), ungreen business operations, resources of information (education, governmental regulations, social media) and these factors affect the organism. Organism consists of perceived risk (risks related to hygiene, performance risk) and potentially being mindful which affect the response. Response is an intention to purchase refurbished products. The current study shows that even though consumers are price-conscious during the economic downturn, they intend to purchase refurbished products. Individuals could be more inclined toward end-of-life options during an economic downturn. Refurbished products have discounted prices; therefore, companies can use this advantage to appeal to financially vulnerable consumers.

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1 Introduction

UN's Sustainable Development Goals (SDGs) are a call for action for all emerging and developed markets to ensure peace and prosperity for people and the environment (UN, 2023a). SDGs consist of 17 goals from no poverty to partnerships for the goals, adopted by all United Nations Member States in 2015. These goals are defined as blueprints for the conservation of peace and prosperity for people and the planet. Among SDGs, goal number 12 leads countries to ensure and implement sustainable consumption and production processes. Here, developed countries have the main responsibility and take the lead while all countries benefit from the process (UN, 2023b). With the implementation of sustainable consumption and production processes into the economy, sustainability becomes a crucial issue to preserve the continuity of the goal. Along with sustainable production, sustainable consumption is essential in the continuity of sustainability issues. Thereby, this study involves the sustainable consumption side of the SDG goal number 12. Sustainable consumption examples include purchasing energy efficient appliances, organic food, and refurbished goods, recycling waste from households, adopting a voluntary simplified lifestyle, and changing to environmentally friendly transport modes (Dhendra, 2019). All these changes in consumption habits support sustainable applications in daily life of consumers.

Sustainability is at the forefront of the circular economy (CE) model, which aims to extend the life cycle of products by enabling different operations such as sharing, leasing, reusing, remanufacturing, refurbishing, and recycling. In the context of the CE, sustainability is achieved by keeping resources in use for as long as possible, extracting the maximum value from them whilst in use, then remanufacturing, refurbishing, and recycling products and materials at the end of each service life (Elo & Kareila, 2014; Camilleri, 2020). CE provides sustainable production and consumption while trying to decrease the amount of waste and the use of resources (Wallner et al., 2020). Governments enact legislation related to environmental protection to provide sustainable development while alleviating the negative effects of resource depletion and environmental pollution (Murray et al., 2017; Hofmann, 2019). As the linear economic model directs consumers toward a take-consume-throw pattern, companies manufacture products with a short life span (European Parliament, 2022). However, CE is a new philosophy to change the current linear economy and conventional practices with the help of sustainable production methods. On the supply side, CE encourages companies to implement these sustainable methods into production systems to revalue returned products by adding additional values (Reddy & Kumar, 2021). Thus, traditional supply chains close the link by collecting, sorting, transferring, storing, and recovering returned products.

On the demand side, consumers may support CE by purchasing remanufactured, refurbished, repaired, or recycled products (Wallner et al., 2020; Agostini et al., 2021). These products provide cost advantage to companies due to asset recovery. Furthermore, companies use this advantage by reducing the price of these products

that can be reached by consumers in emerging markets (Zhang et al., 2018). Among these recovery options, refurbishing targets returned products that have minor malfunctions (e.g., broken monitor, visual defects). Consumers may not buy refurbished products (RPs) due to various reasons even though they intend to purchase them. For instance, consumers perceive a refurbished product as having a lower quality or attractiveness due to the lack of product usage data (Wallner et al., 2020). Amel et al. (2009) suggest that an increased focus on mindfulness may aid in closing the gap between consumers' intentions and behaviors. As originated from the mindfulness concept, green mindfulness refers to the conscious awareness of consumers about the context and content of environmental knowledge (Chen et al., 2015). That is, refurbished products that are sustainable can be purchased with the positive effect of green mindfulness. On the other hand, companies produce refurbished products to contribute to a more sustainable world and support CE (Bigliardi et al., 2022). For example, to refurbish iPhones, Apple cleans returned devices and replaces them with original components. The company gives a 1-year warranty and resells these phones with approximately 15% discounted prices. Apple refurbishes other devices, such as laptops, tablets, and smartwatches, in the same way (Apple Website, 2021). Growing green mindfulness trends of consumers also inspire manufacturers to focus on producing sustainable products (Mondal & Giri, 2022).

The *purpose* of this study is to examining the influences of green mindfulness on the purchase of refurbished products during the economic downturn. We seek answers to questions such as:

- RQ1. Why do consumers intend or not to purchase refurbished products?
- RQ2. Which motivators affect the intention to purchase refurbished products?
- RQ3. Are consumers who are motivated to purchase refurbished products mindfully green?

As Ross and Milne (2021) imply, the factors that motivate consumers to make sustainable choices are contextual. Thus, it is important to contextually diversify studies on purchasing refurbished products. *First*, the contribution of the study is selecting Turkey to research as the study context. The refurbishing literature mostly focuses on countries in the Global North such as Germany, Holland, Italy, the UK, and the USA (Van Weelden et al., 2016; Mugge et al., 2017a; Agostini et al., 2021). Gandhi (2020) shows that consumers who prefer refurbished products have high environmental awareness and are mostly in developed countries. Few studies are interested in emerging markets such as Russia (Mugge et al., 2017a) and Taiwan (Liu & Tsaur, 2020). But these studies dealt with the intentions and purchasing of a specific product, refurbished smartphones. As an emerging market, Turkey is in economic turbulence making it an exciting country in the study context. Rising inflation, declining purchasing power, and falling consumer confidence index have significantly changed Turkish consumers' behavior in the last 2 years in the country with Covid-19 outbreaks (Baez et al., 2021). Moreover, sustainability-oriented initiatives and practices in Turkey are still in the early stages, and government regulations are insufficient.

Second, this study is the first to examine the relationship between the intention to purchase refurbished products and green mindfulness during an economic downturn. Bayuk et al. (2022) examine the effect of mindfulness on consumers' financial vulnerability. Financial vulnerability can possibly put more emotional stress and make individuals fragile against economic collapse and further life challenges. To protect their mental health and psychological well-being, individuals can relieve themselves with the help of mindfulness. Mindfulness can also transform one's perceived financial vulnerability (Bayuk et al., 2022). Yet there is no study investigating the transformational effect of green mindfulness on the intention to purchase refurbished products during an economic downturn. Studies carried out during an economic downturn are also limited (Kaytaz & Gul, 2014; Zavali & Theodoropoulou, 2018). This is important because even though purchasing some green products (e.g., second-hand products) may increase during the economic downturn, it can decrease after the economic stability (Kaytaz & Gul, 2014). Moreover, some green purchases are assumed to have higher prices (Zavali & Theodoropoulou, 2018). But even though consumers are more price sensitive during the economic downturn, they can maintain their environmental values which lead them to make green purchases and carry out sustainability practices such as recycling (Zavali & Theodoropoulou, 2018). As being a green purchase, refurbished products have discounted prices compared to brand-new products (Harms & Linton, 2016). Along with green purchasing, Charoensukmongkol (2019) reported that mindfulness helps entrepreneurs to overcome the devastated effect of economic downturn and perform effectively in this uncertain situation. Furthermore, studies focusing on the relationship between mindfulness and sustainable consumption are also limited (e.g., Pagiaslis & Krontalis, 2014; Dhandra, 2019; Gandhi, 2020). Fischer et al. (2017) conducted a systematic literature review on the subject and only found seven papers to analyze.

The remainder of the article is as follows. In the next section, we review and discuss the concepts of refurbished products and green mindfulness. Section 3 gives information on the study context. Then, we demonstrate the methodology in Sect. 4. Section 5 gives the findings. Section 6 is the conclusion part of the study. In the following sections, we include theoretical and managerial implications and make suggestions for future research.

2 Background

2.1 *Refurbished Products as Sustainable Products*

Refurbishing is an alternative way of production to other end-of-life operations. By refurbishing, companies have a chance to resell used products. In the refurbishing process, companies collect used products, evaluate their conditions, and replace or upgrade their components (Mugge et al., 2017b). For example, companies target low-income customers for the sale or rental of refurbished washing machine by

Table 1 End-of-life operations

| Product recovery option | Process |
|-------------------------|---|
| Refurbishing | Some modules repaired/replaced; potential upgrade (specified quality level, warranty less than new product warranty) |
| Remanufacturing | Used and new modules/parts combined into a new product; potential upgrade (as new quality, warranty equal to new products). Product is disassembled, cleaned, repaired, and reassembled to function as new. |
| Recycling | Materials reused to produce new parts |
| Repair | Some parts are fixed or replaced by spares |
| Reuse | Reusing the product for the same purpose without significant repairing |

Sources: Thierry et al. (1995), Elo and Kareila (2014), Paterson et al. (2017)

providing the same warranty and support for these product types (Pollard et al., 2023). Unlike remanufacturing, refurbishing does not need a full test of components or is not a raw-material operation as in recycling. Even though refurbishing may involve repairing, the company which refurbishes the products offers a warranty and discounted prices (see Table 1).

While refurbishing appeals to B2B market, it also concerns the B2C market. The literature on the intention to purchase refurbished products in the B2C market mostly focus on smartphones (Van Weelden et al., 2016; Mugge et al., 2017a, b; Liu & Tsaur, 2020; Agostini et al., 2021). Few other refurbishing studies are concentrating on alternative products such as radio, coffee machine, toothbrush, wardrobe, table, luggage, and office chair (Mugge et al., 2017b; Wallner et al., 2020). In refurbishing studies, scholars apply quantitative methods to explore trends and usage frequency of refurbished products (Mugge et al., 2017a; Liu & Tsaur, 2020; Agostini et al., 2021). To understand consumer behaviors at an individual and contextual level, studies chose to conduct qualitative methods (Van Weelden et al., 2016; Mugge et al., 2017b; Wallner et al., 2020).

While there is growing attention to sustainability, there are some barriers or myths that prevent consumers from purchasing refurbished products. One of the most prominent barriers is the lower awareness of consumers against refurbished products. While consumers have intentions or want to exhibit sustainability-oriented behaviors, they may not be familiar with end-of-life options. For instance, consumers may not have been informed about what refurbishing is, or have not encountered refurbished products. As Van Weelden et al. (2016) stated, consumers reject refurbishing products after evaluating risks and benefits. The authors also classify barriers to purchasing refurbished products by consumers: Personal barriers (familiarity, low confidence in own ability to judge), contextual barriers (warranty and service, price, information provision, seller image, brand image, retailer experience), and product-related barriers (performance characteristics, use history, product appearance, characteristics of electronic devices). Moreover, performance risk negatively affects the intention to purchase RPs (Mugge et al., 2017a). Mugge et al. (2017b) indicate the drivers toward the acceptance of RPs as financial, functional quality, aesthetic quality, warranty, contamination, and personalization. Elo and

Kareila (2014) stressed branding can be an important driver in the eyes of customers whether the original manufacturer's trademark or the product's refurbisher is visible when selling the product.

Mugge et al. (2017a) point out that perceived environmental benefits, awareness of refurbishing, and product-related factors (upgraded battery life, software updates with warranty, upgraded performance) positively affect the intention to purchase refurbished smartphones. Aesthetics of the product (neo-retro and simple design styles) increases the acceptance of refurbished products (Wallner et al., 2020). Agostini et al. (2021) note that a seller's reputation and the importance attached to distribution are related to perceived value and risk and affect attitude toward refurbished products and intention to purchase refurbished products. Liu and Tsaur (2020) note that brand value affects the intention to purchase refurbished smartphones and government regulations moderate this relationship.

Consumers' decisions to purchase refurbished products can also differ by product category. For instance, Mugge et al. (2017b) state that consumers mostly accept products such as wardrobes, tables, luggage, and office chairs as refurbished products. The least accepted products were electric toothbrushes, kettles, mouse, and sunglasses (Mugge et al., 2017b).

2.2 *Green Mindfulness*

Mindfulness is a multifaceted phenomenon that implies individuals' holistic awareness and enhanced attention to their present realities and personal experiences. Mindfulness inspires individuals to act with awareness, non-reacting, observing, describing, and non-judging (Brown & Ryan, 2003; Baer et al., 2006). As a cognitive process, the essence of mindfulness is about coexistence (Tsevreni, 2022). Mindfulness is based on the awareness that all humans and nonhumans have the right to exist equally and aims to encourage individuals with this principle to be aware of themselves, other humans, and nonhumans in nature. According to mindfulness, the way for individuals to strengthen their well-being is to consider all beings in nature while behaving and acting (Brown & Ryan, 2003; Bahl et al., 2016) which leads to positive behavioral changes (Kristeller and Wolever, 2010). It is a state of consciousness (Brown & Ryan, 2003) and results in more conscious consumers (Stankov et al., 2020).

To integrate solely the pro-environmental behaviors into the mindfulness concept, scholars proposed *green mindfulness* (Chen et al., 2015). *Green mindfulness* originates from and serves as mindfulness. Green mindfulness focuses on the ecological behaviors of individuals and needs to be aware of the impacts of individual acts on environmental sustainability. It implies cognitive green ability that is reflected by alertness to distinction, awareness of multiple perspectives, openness to novelty, sensitivity to different contexts, and orientation in the present (Ho et al., 2022).

Green mindfulness has been newly conceptualized and discussed in social sciences. Prior literature focused on the subject from a managerial or employee perspective (Chen et al., 2014, 2015; Yusliza et al., 2022). For instance, green mindfulness affects employees' ecological behavior (Yusliza et al., 2022). Green mindfulness is also important from the consumer level. In marketing research, it has been one of the least explored concepts in terms of its influence on green purchase behavior (Amel et al., 2009; Tewari et al., 2021). The notable studies explain and relate green mindfulness with pro-environmental behaviors (Barbaro & Pickett, 2016; Dharmesti et al., 2020; Tewari et al., 2021) and green purchase intentions (Dhandra, 2019). There are also a few studies that link mindfulness with self-reported sustainable behaviors (Amel et al., 2009). For instance, Tewari et al. (2021) indicate that mindfulness affects the intention to purchase organic food products.

Green mindfulness ignites the pro-environmental behaviors of consumers (Dharmesti et al., 2020). Mindful consumers are more likely to choose products that are less harmful to the environment even though they perceive barriers to not buying those products (Amel et al., 2009). Individuals' everyday routines which are done automatically are mostly harmful to the environment such as excessive water usage while brushing teeth or not bringing a reusable coffee cup to the coffee shop (Amel et al., 2009). Mindful consumers are less likely to behave automatically (Dhandra, 2019) and mindfulness disrupts routines (Fischer et al., 2017). Thus, it is assumed that green mindfulness may help close the gap between pro-environmental attitudes and behaviors (Amel et al., 2009). Moreover, environmental concerns, general mindfulness, and everyday habits (e.g., energy and water saving) affect green mindfulness which is an individual factor (Dharmesti et al., 2020).

3 Study Context: Turkey as an Emerging Market

Turkey pursued neoliberal policies and transitioned to a free market economy in the 1980s. The middle class was strengthened thanks to Prime Minister Turgut Ozal (also the chairman of the Motherland Party -ANAP-), who significantly improved their living standards to consume more (Belbağ et al., 2019). After AKP (Justice and Development Party) came into power in 2002, consumption culture rooted deeply and even transformed the Islamic values of many consumers toward a more consumption-oriented lifestyle by creating businesses that cater to the consumption habits of individuals who adhere to Islamic values by offering services such as conservative lifestyle hotels and restaurants, headscarf stores, halal food options, and haj-related services (Uner & Gungordu, 2016). AKP shared the same neoliberal values as the Motherland Party (Coşar & Özman, 2004). In recent years, waste management regulations in Turkey have gained prominence, with the country employing three regulations to handle waste management (Erbil, 2020). In 2003, following the official acceptance of Turkey's candidacy for the European Union

(EU), the country promulgated ten additional waste management regulations as part of the EU harmonization process (Gören & Özdemir, 2011). These regulations were intended to establish a waste industry rather than to reduce waste or implement sustainability-oriented policies (Deniz, 2010).

While consumers in European countries are accustomed to refurbished products, sustainable products and refurbishing are relatively new concepts in Turkey. In August 2020, the “Regulation on the Sales of Refurbished Products” was enacted (Official Gazette, 2020). According to the regulation, certified companies may refurbish returned products that have been in use for 1 year. Refurbished products must be resold to consumers with a warranty, and the refurbished product must bear an inscription that indicates the status of the parts used in the refurbishing process (whether the parts are manufacturer-approved or not). Currently, a total of nineteen certified companies refurbish smartphones and tablets (Ministry of Trade Website, 2022). The Ministry of Trade has launched an advertising campaign to raise awareness among consumers about refurbished products and the regulation. Additionally, the government has implemented measures to encourage Circular Economy (CE) practices in industries. As a member of the United Nations, Turkey agreed in 2015 to pursue the UN Sustainable Development Goals 2030 Agenda through governmental policies. The country also signed the Paris Climate Agreement in 2016, committing to reduce 21% of total greenhouse gas emissions before 2030. However, sustainability practices such as recycling, refurbishing, and others are still in their early stages of development in Turkey.

4 Methodology

Qualitative research is a strategy aimed at achieving an in-depth comprehension of phenomena. Qualitative research offers tools for understanding why and how individuals behave and exploring motivations for behavior (Creswell & Creswell, 2017). In social sciences, researchers prefer qualitative research methods to investigate behavior patterns that have not yet been discovered or are new to the context (Daly et al., 2007; Maxwell, 2021). We needed qualitative research for this study to understand the consumers’ tendency and motivations for refurbished products in Turkey as a country where sustainability policies have not yet been systematized and regulations are inadequate. The lack of significant studies to understand or predict the intentions or consumptions of individuals in Turkey to refurbished products is another reason that leads us to qualitative research.

4.1 Sample

As the adoption of refurbished products remains relatively low in Turkey, the potential pool of participants for the study is limited. Consequently, we employed

a snowball sampling technique to identify suitable participants (Birnacki & Waldorf, 1981). Kirchherr and Charles (2018) contend that the snowball sampling technique facilitates the attainment of diverse samples, particularly when the sample size is constrained. To begin their sampling process, the first and second authors utilized a personal contact as an interviewee and subsequently augmented their sample by obtaining 16 additional participants through referrals. The authors commenced interviewing their participants in February 2022, which lasted for 6 months, with some delays arising from the post-Covid19 working conditions.

In total, we recruited 18 participants from diverse professional backgrounds, age groups, and educational levels. The age range of our participants was between 22 and 56 years old, with ten holding bachelor's degrees, five holding master's degrees, and three possessing PhDs. Most of the participants were residents of Istanbul and Ankara, two of Turkey's largest cities. Others were from a smaller city, Bartın. All participants possessed at least a bachelor's degree, with the majority self-identifying as upper-middle- and middle-class, comprising 14 individuals based on their income level. One participant identified himself as belonging to the upper-class, while the remaining three placed themselves in the lower-middle-class. Nine participants identified themselves as female, while the others were male. The interviews had an average duration of 40 min, and Table 2 provides detailed information on the participants' demographics.

Before conducting the interviews, we provided the participants with detailed information about the study's aims and objectives and ensured their participation was voluntary by obtaining their consent. Our cover letter outlined the research topic, institutional affiliations, and contact information and explicitly stated our adherence to ethical principles. In addition, we requested permission to record the interviews and assured participants that their identities would remain confidential and that their views would not be shared with any third parties. To maintain anonymity, we anonymized the data and used pseudonyms for each participant. Furthermore, we excluded any information that could potentially lead to the identification of the participants.

Our study has some limitations in terms of the sample. Although there was a relief compared to its first period, the Covid-19 pandemic made it somewhat difficult for us to travel or meet with the participants. Because some potential participants refused to meet face-to-face, we could not include them in the study. We also could not go to the interview with some of the participants. The Covid-19 pandemic condition also limited us in diversifying the cities of our participants. We have participants from a small city (Bartın), but most are from Turkey's two largest cities, Ankara and Istanbul. Our study is also limited by the fact that the participants were sampled from educated and middle-/upper-income class populations.

Table 2 Detailed information of participants

| No | Name | Age | Gender | City | Education | Occupation | Refurbished products awareness level | Intention to purchase RPs | Perceived income group |
|----|--------|-----|--------|----------|-------------------|-------------------------|--------------------------------------|--|------------------------|
| 1 | Arda | 46 | Male | Ankara | Bachelor's degree | Business executive | Mediocre | Intend to purchase RPs | Upper |
| 2 | Bekir | 39 | Male | Istanbul | Master's degree | Graphic designer | Higher | Purchased RPs | Middle |
| 3 | Ceyda | 53 | Female | Istanbul | Master's degree | Management consultant | Mediocre | Intend to purchase RPs | Upper middle |
| 4 | Deniz | 38 | Female | Istanbul | Bachelor's degree | Sales manager | Higher | Purchased RPs | Middle |
| 5 | Ekin | 39 | Male | Istanbul | Master's degree | Lawyer | Lower | Not purchased | Upper middle |
| 6 | Fatih | 32 | Male | Ankara | Master's degree | Civic engineer | Lower | Not purchased/don't intend to purchase RPs | Upper middle |
| 7 | Gamze | 51 | Female | Istanbul | Master's degree | Chemical engineer | Mediocre | Intend to purchase RPs | Upper middle |
| 8 | Hatice | 56 | Female | Ankara | Bachelor's degree | Industrial engineer | Mediocre | Intend to purchase RPs | Middle |
| 9 | Kenan | 46 | Male | Ankara | Bachelor's degree | Personal trainer | Mediocre | Intend to purchase RPs | Middle |
| 10 | Lale | 41 | Female | Istanbul | Bachelor's degree | Human resources manager | Higher | Purchased RPs | Upper Middle |
| 11 | Selcuk | 38 | Male | Ankara | PhD | Academician | Higher | Purchased RPs | Middle |
| 12 | Ayse | 35 | Female | Ankara | PhD | Academician | Mediocre | Intend to purchase RPs | Middle |
| 13 | Ceyhan | 38 | Male | Ankara | PhD | Academician | Mediocre | Intend to purchase RPs | Middle |
| 14 | Haydar | 22 | Male | Bartın | Bachelor's degree | Student | Mediocre | Intend to purchase RPs | Lower middle |
| 15 | Emel | 22 | Female | Bartın | Bachelor's degree | Student | Lower | Not purchased/don't intend to purchase RPs | Lower middle |

| | | | | | | | | | |
|----|--------|----|--------|--------|-------------------|---------|----------|--|--------------|
| 16 | Berrin | 22 | Female | Bartın | Bachelor's degree | Student | Mediocre | Intend to purchase RPs | Middle |
| 17 | Mahmut | 22 | Male | Bartın | Bachelor's degree | Student | Lower | Not purchased/don't intend to purchase RPs | Lower middle |
| 18 | Selin | 22 | Female | Bartın | Bachelor's degree | Student | Lower | Not purchased/don't intend to purchase RPs | Middle |

4.2 Procedure: Abductive Research Approach

We adopted the abductive research approach in this study (Ong, 2012). The abductive approach makes it possible to use different theories during the analysis to explain the observations in the field and allows to design and manage the process of analyzing the data in a purposeful way. With the abductive approach, we could move between the literature and observation and understand the sustainability-oriented changes in the purchasing behaviors of individuals in Turkey. First, we examined the literature on mindfulness and green mindfulness. After that, we searched for papers related to consumer behavior during an economic downturn that affects consumers' financial well-being and vulnerability. Then, we read papers exploring the drivers of the intention to refurbished products.

We designed a semi-structured form for the interviews. The semi-structured form includes questions about how participants' environmental awareness has changed over time, how their environmental approach affects their purchasing behavior, and how the country context relates to their environmental understanding and purchasing behavior.

As Schmidt (2004) noted, the semi-structured form allowed us to be spontaneous and flexible in interviews. The form also made it easier for us to manage the interviews under the research focus. The 17-item form had two main themes, green mindfulness and refurbished product experiences. The form aimed to investigate the following: (1) the level of green mindfulness of participants, (2) the factors affecting the level of green mindfulness of participants, (3) the acquisition of sustainability-oriented habits in participants' daily life, (4) the effect of green mindfulness on their purchasing behaviors, (5) refurbished product familiarity of participants, (6) purchase intention for refurbished products of participants, and (7) their refurbished product experiences. In addition to these items, the semi-structured interview form also included demographic variables.

4.3 Analysis

First, we all prepared the data for analysis. We made a transcript of the recorded interviews verbatim. We coded and analyzed the data collaboratively. Joint coding and analysis allowed us to gain a multi-perspective and take a more refined look at transcripts. Also, collective decisions for the coding list and themes increased the reliability and validity of our study (Vaughn & Turner, 2016).

We used the structured process of Braun and Clarke (2006) to analyze the data thematically. We followed these steps: We each simultaneously read the transcripts to specify the possible codes. We compared our potential code lists and identified overlapping codes. We discussed each non-overlapping code and made a joint decision for them. The overlapping and agreed-upon codes formed our coding list. We coded the data using the coding list. Then, we compared our coding and found

Table 3 Themes and sub-themes

| Themes | Sub-themes |
|----------|---------------------------------|
| Stimulus | Crises |
| | Ungreen business operations |
| | Sources of information |
| Organism | Perceived risk |
| | Potentially being green mindful |
| Response | Intention to purchase RPs |

overlapping coding, and discussed non-overlapping coding and made a joint decision for each. The abductive approach pushed us back to theory at this stage. As Özbilgin and Erbil (2019) imply, the abductive approach lets us make sense of our uncoded observations. To explain our observations holistically, we updated the coding list according to the theory. We added new codes to the list and repeated the coding process. In the final step, we focused on sorting out the relationships between coding and explored themes. To classify our themes and sub-themes, we benefited from the *stimulus–organism–response (S-O-R) framework* (Mehrabian & Russell, 1974) which has been used in consumer behavior studies (Güngördü Belbağ, 2022). Stimulus refers to external factors that affect individuals, and the organism indicates individuals’ internal emotional responses (Partington, 2000). Response refers to individuals’ behavioral responses (Partington, 2000) (see Table 3).

5 Findings

Mindfulness toward internal and external stimuli is positively related to sustainable behavior (Amel et al., 2009). Therefore, we classified our themes and sub-themes under the S-O-R framework. Environmental stimuli factors include crises, ungreen business operations, and the sources of information. Organism includes perceived risk and potentially being green mindful. Response refers to the intention to purchase refurbished products.

5.1 Stimuli Factors

5.1.1 Crises

Crises either health-related or economic affect consumers’ well-being. The pandemic deteriorates well-being with higher stress and lower life satisfaction (Sheng et al., 2022; Pradhan, 2022). Economic downturn worsens financial well-being and vulnerability; thus, leads to stress and uncertainty. Moreover, Pradhan (2022) reports that consumers behave similarly during the pandemic and an economic downturn.

Therefore, we created a theme “crises” including two sub-themes such as the Covid-19 pandemic and the economic downturn.

Participants self-reported pro-environmental attitudes and behaviors related to the *Covid-19 pandemic*. The literature on COVID-19 from a consumer behavior perspective reports on the sustainable behavior of consumers such as prosumption (Güngördü Belbağ, 2022) during the pandemic. Hatice gives an example:

The COVID-19 pandemic has affected me and my purchase behavior in two ways. First, I find the alleged manifestation of the disease extremely meaningful. I see it [Covid-19] as the result of humans' problematic relationships with animals and nature. Another significant environmental impact of Covid-19, I think, is the visibility of environmental waste. It is necessary to see the negative impact of the trash generated by using masks and other hygiene materials on the environment. I acquired the habit of online shopping during the pandemic. Now I can buy clothes without visiting a store. But more importantly, I learned to settle for less during this period. The unfavorable impact of the pandemic on the economic conditions and the waste created by human beings changes my purchase behavior. (Hatice, 56, female, industrial engineer)

Turkey faced an *economic downturn* even before the pandemic. The devaluation of the Turkish lira against foreign currencies, rising inflation, and decreasing purchase power led consumers to gain new consumption habits. The economic downturn in Turkey affected consumers' behavior. Participants indicated frugality and cautiousness. Similarly, Evans (2011) notes that under economic scarcity, people realize that in fact they do not need all of the things they thought they would need. Lesser consumption may also bring a satisfied life as reported in Soper's (2007) *alternative hedonism*. Dhandra (2019) notes that mindfulness positively affects frugal purchasing. During an economic downturn, consumers become more mindful. Kenan states:

Indeed, the adverse changes in Turkish economic conditions greatly influence my purchasing behavior. I spend more prudently and cautiously than before. For example, what I observed in myself was that I bought fewer clothes. I use the washing machine during the day since the electricity and water prices in prime time are higher] [. . .] I consume less. I buy fewer items. Actually, I think this is what it should be. I should have acted like this [frugal] in the past. In my opinion, I bought too many clothes (Kenan, 46, male, personal trainer)

Participants mostly focused on refurbished smartphones. As the prices of electronic devices are high, most products are hardly accessible even to middle-income consumers. These products are mainly foreign and the devaluation of the Turkish lira against foreign currencies changes day by day in Turkey. Some participants note:

The outrageously high prices of technological devices in Turkey drive me to purchase refurbished products. I prefer refurbished phones and computers. (Haydar, 22, male, student)

I prefer to buy electronic [refurbished] devices that have not been abused, have not shortened battery level or lifespan, and have not much damage. From an economic point of view, if you do not have the budget to spend thousands of [Turkish] liras on electronic gadgets, you have to look for refurbished products. You can use them while being at ease if you are careful enough. (Berrin, 22, female, student)

5.1.2 Ungreen Business Operations

Participants pay attention to ungreen business operations which leads them to change their purchase behavior. Even if the companies pursue positive campaigns, their unethical behavior affects consumers more. For instance, Gamze notes:

I pay attention to the policies of businesses. But I cannot say I deliberately search for them. News from the press or social media affects me. Environmental-related business scandals affect me more than their positive campaigns and I try not to choose those businesses. For example, Burger King sourced meat from deforested land in the Amazon forests and this sourcing activity led me not to order from there. It is also true for McDonald's. I'm talking about the slaughter of forests for cattle breeding. (Gamze, 51, female, chemical engineer)

5.1.3 Sources of Information

Our sample consisted of highly educated consumers. Even though *education* is reported as a positive factor in the context of sustainability in the literature, participants report that their education does not affect their environmental awareness. Some examples are:

I suppose that education has a limited effect on strengthening my environmental awareness. (Ekin, 39, male, lawyer)

Education has almost no effect on my environmental awareness. I guess the world wasn't that vulnerable during my education. Maybe the current education style contributes to the consciousness of children (Lale, 41, female, human resource manager).

I try to recycle our waste. But it's hard. They didn't teach us anything about this at school. (Ayse, 35, female, academic)

Participants noted that *governmental regulations* are insufficient in Turkey, therefore they don't trust the authorities. They also don't think that the government contributes to their awareness. As acting with awareness is a facet of mindfulness, it is reported to be strongly linked with ecological behavior (Geiger et al., 2018). Turkey has an unregulated market on sustainability practices and the inspections from the government authorities are insufficient, thus, some participants do not trust the warranty of refurbished products. Moreover, they need more information on the refurbishing process. As a reason for the lack of information and sufficient regulations, they think that it is safer to purchase a refurbished product when important parts of the product are not refurbished. Some participants stated:

I believe that the legal regulations in Turkey are also insufficient, and I do not feel that the legal mechanisms are effective in increasing the awareness of individuals. Legal regulations on these issues are mostly made after social reactions. Therefore, social media, campaigns, propaganda, environment, and mass media are more effective (in developing environmental awareness). My conclusion is that the impact of government on individuals' environmental sensitivities is extremely limited. I think society itself, NGOs, and businesses are often more proactive and guiding in this manner. (Ekin, 39, male, lawyer)

Even if the Ministry (of Trade) guarantees, I won't buy a refurbished product. Because I think refurbished products are more likely to have problems than brand-new products.

Primarily, using these [refurbished] products in our work or education will disrupt our lives. (Mahmut, 22, male, student)

I will buy a refurbished product as long as I am informed of all the processes such as repair, replacement of parts, etc. However, I do not buy refurbished products due to reasons such as the lack of regulations about the product and the lack of knowledge related to any good or bad conditions about the product. (Emel, 22, female, student)

I will buy a refurbished smartphone if important parts of the product are not refurbished. If only its screen is refurbished, I will buy it. (Ayse, 35, female, academic)

Social media affects mostly participants' environmental attention compared to educational institutions or government regulations as being resources for information. Participant's family and friends affect their green purchases. Lale notes:

I can say that social media has the most impact on my environmental attention. We come across different news and information [on social media] every day. Most of them are related to the environment. The posts of my friends also affect me, and in this sense, I can say that my circle of friends is also effective, as well. (Lale, 41, female, human resource manager)

5.2 Organism Factors

5.2.1 Perceived Risk

Uncertainties are in the nature of consumers' decision-making process. The effects of risks on consumer behavior is first explained by Bauer (1967). Theory of risk-taking (Taylor, 1974) indicates that risk involves uncertainties about the outcome of the decision and the consequence of making a mistake when deciding to purchase a product. Perceived risk, which involves subjectivity by each person (Bauer, 1967), has been widely used in the marketing literature to explain consumer behavior. Risk perception can trigger a negative attitude toward certain products. Especially, buying refurbished products can be seen as a risky behavior by consumers due to the ambiguity of the quality of the refurbished product. We divide the theme "perceived risk" into two sub-themes such as risks related to hygiene and performance risks.

Participants also noted *risks related to hygiene*. Refurbished products that are directly related to personal use such as clothes, shoes, and headphones are the least favorable among the participants. Abbey et al. (2015) point out that consumers' relative repulsion or disgust is low for electronic products, moderate for household products, and high for personal care products. However, the current study shows that direct skin contact is more important in this manner. Therefore, refurbished headphones can be perceived as unhygienic. Deniz stated:

I can buy refurbished products. However, in terms of hygiene, I don't prefer refurbished products directly related to personal use. For example, I can buy refurbished versions of products such as cars, computers, and phones. Of course, if they are affordable and from a trusted seller. [...] But I don't buy refurbished clothes or headphones. I doubt whether it is hygienic or not. I prefer brand-new products for personal use, regardless of the price. (Deniz, 38, female, sales manager)

Participants perceive that refurbished products hold a *performance risk*, even if these products have a warranty for use. Performance risk has costly consequences, according to them. In addition to doubts about performance, consumers are also worried about the authenticity and functionality of replaced parts. Selin states:

[Most of the businesses] can refurbish their products with low-quality components, also described as sub-industry. Such components, in my opinion, negatively affect the quality and usability of the product. For example, a refurbished laptop. Suppose that the laptop is replaced with a non-original video card. It is likely to get lower efficiency when using a refurbished laptop compared to a brand-new one. Then, I won't prefer to buy refurbished products. (Selin, 22, student)

5.2.2 Potentially Being Green Mindful

Participants self-reported pro-environmental behaviors in their daily routines such as refraining from excessive water or electricity consumption, recycling, using public transportation instead of personal vehicles, reducing the consumption of plastics, etc. Instead of doing things automatically, they are trying to be mindfully green. Yet, they also refer to their budget which becomes another barrier for them to unlock their mind toward being green in all aspects. Participants' financial well-being, which is defined as one's financial state (O'Connor et al., 2019), worsened with the economic downturn in Turkey. They also feel increasingly financially vulnerable which refers to the likelihood that an individual will experience financial hardship (O'Connor et al., 2019). Even though they have mental blocks which lead them to feel financially vulnerable (Bayuk et al., 2022), they try to add sustainable behavior to their everyday life. Some participants stated:

I limited my electricity and water consumption. I decreased it to an optimum level. I think things should be like this for sustainability. I'm more sensitive to recycling. I can separate my waste for change at home. I prefer ecological products if they are budget-friendly (Kenan, 46, male, personal trainer)

My plastic consumption is decreasing during my everyday consumption habits. I find plastics to be harmful to the environment and unhealthy. Yet I believe that individual efforts are insufficient against the enormous number of environmental problems of the World. (Ekin, 39, male, lawyer)

Sometimes I use public transportation instead of personal vehicles. I think this has a positive effect on both traffic and air pollution. (Deniz, 38, female, sales manager)

Even before the pandemic and the economic downturn in our country, I was paying attention to purchasing environmentally friendly products. I try to separate my waste. Most of our household waste constitutes product packages. I mean, who needs another package of toothpaste? It already has one! I try to recycle our waste. Moreover, some companies even give coupons for recycling. I also get my products repaired instead of buying a new one and reuse them as long as possible. Yet, I have to admit that it is hard to purchase green products during this economic downturn. But I still cannot risk either our health or the environment. Being more aware of the environment and the present moment, I feel more satisfied. (Ayse, 35, female, academic)

5.3 *Response*

In the current study, the response is the intention to purchase refurbished products. Nine among 18 participants intend to purchase RPs. Two participants purchased RPs and four participants reported that they don't intend to purchase RPs. Findings indicate that stimuli consist of crises (Covid-19 and economic downturn), ungreen business operations, and resources of information (education, governmental regulations, social media) and these factors affect the organism. Organism consists of perceived risk (risks related to hygiene, performance risk) and potentially being mindful which affect the response.

6 **Conclusion**

SDGs aim is to end poverty and other deprivations that must cope with crucial strategies such as improving health and education, reducing inequality, and supporting economic growth. Among these goals, Goal 12 ensures sustainable consumption and production for people in the society with the help of both companies and consumers. The circular economy aims to both support the economic growth of businesses and help them to manufacture products that are less harmful to nature. Refurbished products are among these green products. Especially, B2C practices for reducing consumption or changing consumer's behavior to be mindful in their purchasing decisions will support the continuity of SDGs. We aimed to investigate the relation between intention to purchase refurbished products and green mindfulness of consumers during the economic downturn in Turkey. Therefore, we carried out qualitative research to explore and understand patterns of behaviors of consumers. The current study shows that even though consumers are price-conscious during the economic downturn, they intend to purchase refurbished products. This finding supports Evans (2011)'s claim which states that an economic downturn may offer opportunities for sustainable consumption.

The intention to purchase refurbished products can be enhanced by magnifying consumers' green mindfulness. Consumers in the study have the potential to be mindfully green as they self-reported pro-environmental habits in their everyday routines, but there are barriers against this potential. These barriers are external factors (environmental stimuli) and internal emotional responses (the organism). Stimuli consist of crises (Covid-19 and economic downturn), ungreen business operations, and resources of information (education, governmental regulations, social media). Organism consists of perceived risk (risks related to hygiene, performance risk) and potentially being green mindful. Even though perceived risk is a barrier toward the intention to purchase RPs, green mindfulness as being the conscious awareness of consumers about the context and content of environmental knowledge (Chen et al., 2015) helps as a tool to increase the possibility of consumers' purchasing RPs. While mindfulness will create a feeling of "having enough"

(Nixon, 2019), it will enhance consumers' well-being during an economic downturn. The consumer will also be more aware of his/her action's consequences, and, thus, prefer a purchase that leaves a smaller environmental footprint (Nixon, 2019) such as RPs.

7 Theoretical and Managerial Implications

There are some *theoretical implications* for our study. First, previous studies (Van Weelden et al., 2016; Mugge et al., 2017a; Agostini et al., 2021) mostly focused on the contexts of developed countries where there are well-designed regulatory policies on sustainability. We have presented findings explaining the sustainable purchasing behavior of consumers who feel the adverse effects of an intense economic crisis and the Covid-19 pandemic. In doing so, we shed light on the circumstances in which the assumption that consumers cannot exhibit sustainable purchasing behavior during a recession is unsubstantiated. Second, our research also has influential implications for refurbishing literature. Operational and industrial studies have dominated the refurbishing literature. There are limited studies from the fields of consumer behavior and other individual-level experiences (e.g., Van Weelden et al., 2016; Mugge et al., 2017a, b). This study differs from existing literature that investigates the intention to purchase refurbished products is not solely due to the environmental awareness of consumers.

Our findings also demonstrate some *managerial implications* for professionals seeking to design and implement sustainability strategies focusing on refurbishing and green purchasing. Contrary to popular opinion, an economic downturn does not always adversely affect consumers' sustainable purchasing behavior. Individuals could be more inclined toward sustainable options during an economic downturn (Kaytaz & Gul, 2014). Refurbished products have discounted prices (Harms & Linton, 2016); therefore, companies can use this advantage to appeal to financially vulnerable consumers. Moreover, they can give coupons to be used for only refurbished products. However, our study reveals that the lack of legal regulations, the inadequacy of institutional transformations, or the superficiality of information sources limit the potential of green mindfulness in individuals. International policy-making plays an important role in the smooth governance of recovery strategies and related legitimacies to support environmental protection (Elo & Karelia, 2014) and green mindfulness. Practitioners should consider that individuals are unaware of business policies or have prejudgemental views on refurbished products, for example, considering refurbished products as unhygienic. There should be more information on refurbishing processes and refurbished products. As social media is the most important information resource for our participants, companies and government authorities should convey more green messages on these channels. Practitioners should propagate their businesses' environmental sustainability policies and refurbishment processes. Moreover, governmental authorities such as municipalities

can promote citizens to be mindfully green by awarding them with public transportation discounts in exchange for their green behavior.

8 Suggestions for Future Research

Future research could investigate the differences in refurbished product purchase intention and behavior of consumers from diverse contexts, educational levels, income classes, or age groups. It may also be consequential for practitioners and policymakers to compare countries among emerging markets for designing sustainability-oriented policies or forming business strategies. Since mindfulness is multifaceted, interdisciplinary studies can offer various perspectives. Moreover, future research can test the suggested model with quantitative methods, i.e. structural equation modeling or experiments.

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Regaining Legitimacy in an MNC After a Socio-Ecological Crisis: An Un(smart) Business Strategy?



Emilene Leite  and Leanne Johnstone 

Abstract Multinational Enterprises (MNEs) are recognised as important and powerful strategic agents for providing momentum to the United Nation’s (UN’s) Agenda 2030 through their ability to implement the Sustainable Development Goals (SDGs) internationally. However, we can also learn from the mistakes of MNEs that cause socio-ecological destruction in their host countries. This chapter develops an understanding of the effects of corporate social responsibility (CSR) legitimisation strategies adopted by an MNE after a crisis event, namely Vale’s Córrego do Feijão mine collapse complex in Brazil, which claimed the lives of over 270 people and caused huge socio-ecological damage. The chapter contributes to growing research on CSR and MNEs by elaborating on the importance of local CSR legitimisation strategies for MNEs to regain legitimacy in the immediate aftermath of crisis events in the affected communities. This requires MNEs moving beyond communicating CSR as empty rhetoric from a more pragmatic legitimacy stance, which serves a global legitimisation function, towards MNEs acting upon their CSR promises in local contexts for legitimacy to be regained. Additionally, the chapter suggests the potential for local crisis events to shape global CSR strategies in industries that positively contribute to the SDGs through the learnings made.

Both authors contributed equally to the book chapter. Emilene Leite came up with the initial idea for the chapter, identified and selected the business case, and wrote the first draft of the background and literature review. Meanwhile, Leanne Johnstone wrote the method section, conducted the empirical analysis, and revised the initial version of the book chapter in response to peer review. Both authors discussed the case, contributed to the conclusions, and reviewed each other’s parts, as well as approved the final version.

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1 Introduction

Mining is an activity associated with socio-environmental impacts. On the one hand, there are clear environmental liabilities related to the mining industry, such as air pollution, water contamination, deforestation, and erosion, which impact various sustainability development goals (SDGs) such as clean water and sanitation (SDG6), climate action (SDG13), and life on land (SDG15). On the other hand, the industry employs many people in developing, emerging, and developed economies alike. This contributes to the overall social well-being of citizens and gross domestic products around the world and therefore, SDGs such as no poverty (SDG1), zero hunger (SDG2), decent work and economic growth (SDG8), and industry, innovation and infrastructure (SDG9). Additionally, the materials and minerals mined are vital for the development of sustainable products and renewable technologies, thus contributing to sustainable cities and communities (SDG11), and responsible consumption and production (SDG12). Together, such factors make the mining industry an inherently complex—yet very interesting—one when it comes to questions of sustainability. This is because it contributes directly, in both positive and potentially negative ways, to various SDGs, as well as indirectly to many more.

The usage of tailing storage facilities (TSFs) (Salvador et al., 2020) poses a particular sustainability challenge for the mining industry. TSFs are structures that confine mixed waste material from mining processes in liquid or slurry form which, however, have more than one major international incident or failure per year (World Bank, 2021). As such, the 12,000 TSFs across the globe demand responsible management by actors in the mining industry as they contain a mix of dangerous and potentially toxic chemicals, which can have disastrous effects on human health and safety, as well as business and the economy if released into the surrounding environment (World Bank, 2021). However, one emerging economy, Brazil, has had more than its fair share of devastating TSF incidents over the past decade.

Brazil is the second-largest global producer of mineral ores (the National Minerals Information Center/US Geological Survey, 2022), with around 600 TSFs (ANA, 2016). Since 2001, six TSFs have failed in Brazil (Airoldi, 2022). One of the most severe failures occurred in January 2019 at the Córrego do Feijão mine complex, owned by the Brazilian multinational enterprise (MNE) Vale, in the city of Brumadinho, Minas Gerais. This was the second TSF failure in recent years involving Vale; the first being in Mariana, in 2015 (see do Carmo et al., 2017), which involved Samarco—a joint venture between Vale and the English-Australian BHP. Together, both failures claimed close to 300 lives and caused huge socio-ecological destruction in the surrounding communities, with detrimental outcomes for Vale in addressing the SDGs.

The failure at Córrego do Feijão mine complex in Brumadinho was extremely significant not only for Vale, but for the citizens of Brazil. According to Vale, the 2019 failure came down to poor drainage and intense rain, resulting in 12 million m³ of tailings being released within 5 min. This quick release of tailings caused rapid mudflows into rivers and water supplies in the surrounding areas and downstream,

thus posing significant immediate and longer-term risks to human and animal health for communities up to 120 km beyond Brumadinho. The Brazilian state environmental authorities detected toxic metals in the water, including lead and chromium, in the first 20 km of the spill (Phys.org, 2019). But more than that, the TSF failure directly claimed the lives of 270 people through the flooding that devastated downstream villages. Given that Vale had already been involved in a similar incident in 2015, this brings us to question not only how MNEs like Vale deal with such tragic events through their response measures but also how such companies can regain their legitimacy through their CSR communication strategies in the aftermath. Such questions must be addressed given the international importance of MNEs for providing momentum to the UN's SDGs (Van Tulder et al., 2021), juxtaposed against their huge potential for mass socio-ecological destruction as evidenced through the example of Vale.

MNEs are increasingly important for engaging in socially responsible activities that were traditionally the focus of governments (Scherer & Palazzo, 2011). Moreover, MNEs are increasingly important for meeting the SDGs on a global scale due to their collective influence (Van Zanten & Van Tulder, 2018; Van Tulder et al., 2021). However, research into CSR in MNEs is still developing and often focuses on CSR in developed countries (Egri & Ralston, 2008; Holtbrügge & Dögl, 2012; Hah & Freeman, 2014), rather than emerging economies (see Pisani et al., 2017; Zhao et al., 2018). Further, it remains unclear how MNEs should adopt corporate social responsibility (CSR) practices to gain legitimacy within both their host countries and beyond (cf. Palazzo & Scherer, 2006; Hah & Freeman, 2014; Beddewela & Fairbass, 2016), and—more precisely—how to *regain* this legitimacy after a socio-ecological disaster such as the one described in Brumadinho, Brazil.

CSR broadly 'encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point in time' (Carroll, 1979, p. 500). While the economic and legal responsibilities of a company are at the core of its survival, the ethical responsibility to avoid harm and the discretionary responsibilities of being a good corporate citizen are increasingly expected by societies around the world, especially in relation to the UN's Agenda 2030 ambition with the SDGs. This means that to operate as 'legitimate' international actors, attention to how MNEs across the globe not only communicate their CSR but also act upon it in local contexts is increasingly merited (see Reimann et al., 2012; Hah & Freeman, 2014). Here, (re)gaining legitimacy through '*[r]elationship building with governmental and other powerful non-governmental actors can be vitally important for the long-term viability of the business*' (Beddewela & Fairbass, 2016, p. 503). This moves beyond the global focus of CSR strategies in MNEs towards emphasising localised CSR strategies as equally important for an MNE's legitimacy (see Husted & Allen, 2006; Jamali, 2010).

In consideration of this 'relationship building' element through CSR communication strategies to (re)gain legitimacy within an emerging host country, this chapter asks: *How are the strategic reparation processes (economic, ecological, and social) of an MNE communicated and received after a huge socio-ecological disaster?* The aim of this question is to develop an understanding of the effects of the

CSR legitimisation strategies (as local and/or global) adopted by MNEs after crisis events. Previous studies often show how MNEs have systematically adopted practices to show various aspects of sustainability within the societies in which they operate (e.g. Hamann, 2014; Kolk, 2016; Rodrigues & Mendes, 2018). However, we can also learn from the mistakes of MNEs that have caused socio-ecological destruction that stands in opposition to the SDGs and their corporate policy, such as that of Vale's *Córrego do Feijão* mine collapse in Brazil. This study is framed from a legitimacy perspective, orientated around the local and global strategic CSR strategies adopted to regain legitimacy after a socio-ecological disaster. It contributes by providing some practical advice for MNEs in similar situations, as well as to scholarly discussions on the legitimising effects of CSR strategies of MNEs in emerging economies.

Drawing from the international CSR and international business (IB) literature, the following section introduces previous studies on the CSR of the mining industry, linking those to the concept of legitimacy and strategic CSR communication for MNEs. Subsequently, we outline the methods, before documenting Vale's responses to the socio-ecological disaster from both Vale's (internal) and other stakeholders' (external) perspectives within the host country. Finally, we offer some concluding remarks regarding the implications of our study for theory, practice, and future CSR research from an IB perspective by particularly emphasising the importance of local moral legitimacy (cf. Reimann et al., 2012) alongside 'global legitimacy' as the more 'standardised' and pragmatic approach to the CSR communication strategies of MNEs.

2 Literature Review

2.1 *CSR in the Mining Industry*

As previously indicated, mining plays an important role in the global economy and the SDGs because it supplies raw materials and energy for many industries, with various economic, environmental, and social implications (Escanciano & Iglesias-Rodríguez, 2012)—good and bad. The direct effects that mining has on the air, water, and soil mean that mining activities are often seen as a threat to the natural environment and society (Vintró et al., 2014; Sonter et al., 2020) as well as a source of socio-political tension (Sovacool, 2019). However, the activity of mining itself provides the natural materials that go into many of our renewable products (e.g. cobalt for lithium-ion batteries, silicon metal for solar panels and semiconductors). Although through the very harvesting of the Earth's materials and minerals the very meaning of 'renewable' is questionable. This leaves the mining industry an inherently complex one when it comes to questions of (un)sustainable futures and meeting the UN's SDGs.

Extractive industries respond to the problems related to their exploitation of natural resources by developing and implementing socially responsible practices

as a matter of survival (Hamman, 2014). The main challenge faced by the industry is to show its contribution to society without compromising the well-being of present and future generations (Vintró et al., 2014). However, mining companies have been involved in human rights violations, child labour scandals, socio-political corruption, and tailing dam incidents, which questions the industry's capability of behaving in a socially responsible way (Fonseca, 2010; do Carmo et al., 2017). Many scholars (e.g. Aragón-Correa & Sharma, 2003; Barba-Sánchez & Atienza-Sahuquillo, 2010; Dougherty & Olsen, 2014; Lopes & Demajorovic, 2020) highlight that the mining industry should adopt proactive, long-term environmental and social strategies to reduce their environmental impact and conflicts within communities. Here, Claasen and Roloff (2012) emphasise legitimacy as critical for the mining industry and its ongoing commitment to CSR.

Legitimacy regards a commitment to rules that aim to prevent and/or deter what can be regarded as unsustainable behaviour in *response* to society's expectations (see Dowling & Pfeffer, 1975; O'Donovan, 2002). For legitimacy to function, a social contract between a company and society is necessary. Various scholars highlight the importance of mining companies understanding and incorporating the perspectives and expectations of the communities within which they are embedded (Gifford & Kestler, 2008; Kemp, 2010). Community relations through dialogue, reciprocity, and a common language for CSR activities are essential to align the local expectations of a host country with the mining company's goals, both for gaining legitimacy and a competitive advantage (Humphreys, 2000; Dougherty & Olsen, 2014; Selmier et al., 2015). This suggests that it is important for mining companies to develop and nurture relationships with 'local' stakeholders in the host countries (e.g. regulators, governments, and local communities) where the mining activities take place. This local CSR strategy appears especially important for MNEs operating in foreign countries (Jamali, 2010; Hah & Freeman, 2014).

2.2 CSR and Legitimacy for MNEs in Emerging Markets

CSR is '*a concept whereby entities integrate, among their institutional purposes, social and environmental goals, [while] also considering financial and economic aspects, expanding their range of stakeholders, and adapting their strategies and actions, as well as expanding communications towards these stakeholders*' (Costa & Torrecchia, 2018, p. 115). Embedded into CSR, therefore, is responsiveness to and inclusion of societal demands by firms (i.e. a legitimacy perspective). When related to legitimacy in emerging markets such as Brazil, this would suggest the need for MNEs to respond to the expectations of not only international shareholders but also local communities and governments in terms of socially responsible behaviours (see Reimann et al., 2012). It is how the MNE responds to the host country's demands (i.e. local responsiveness) that ultimately determine its success (see Bartlett & Ghoshal, 2002; Hah & Freeman, 2014).

CSR and sustainability issues are gaining momentum in IB studies. This is partly down to the huge importance of MNEs in providing social security in developing and emerging economies (Beddewela & Fairbrass, 2016; Kolk & Van Tulder, 2010). Resultantly, there has been an increasing number of IB studies which address MNEs' influence over various SDG topics, such as poverty and inequality, energy and climate change, and peace (see Kolk et al., 2017, 2018). There has also been increasing attention to the socio-political relationships of MNEs in emerging economies as tools for gaining legitimacy (e.g. Hadjikhani et al., 2019; Leite & Bengtson, 2018; Cardoso & Forte, 2020; Leite, 2022). This increasingly socio-political role of international businesses and the transformative potential of their CSR activities in host countries is evident (see Banerjee, 2008; Scherer & Palazzo, 2011; Kolk, 2016; Leite, 2022), leading scholars to emphasise the importance of MNE relationships for gaining legitimacy, with particularly local stakeholders, as vital for their (continued) success (e.g. Reimann et al., 2012; Beddewela & Fairbrass, 2016). That being said, there are few works in international CSR research from an IB perspective which have focused on the less developed regions of the world where the need for CSR practices is most pressing (Egri & Ralston, 2008; Kolk, 2016). Although some studies avert this trend (e.g. Beddewela & Fairbrass, 2016), various scholars highlight the urgency to widen the geographic and cultural scope of IB research on CSR, particularly in emerging countries as the companies' home countries (Pisani et al., 2017; Zhao et al., 2018).

2.2.1 Locally Versus Globally Responsive CSR Strategies for Legitimacy

Suchman (1995, p. 574) defines legitimacy as '*a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions*'. Within such a definition is the implicit understanding that legitimacy is contextually embedded within societies or groups. Various IB scholars emphasise the importance of local contexts as influencing an MNE's CSR activities (Banerjee, 2018; Van Zanten & Van Tulder, 2018), embedded within the concept of *local legitimacy* (cf. Husted & Allen, 2006; Gifford & Kestler, 2008).

Local legitimacy has implications for how MNEs do business in their host countries. It emphasises that for survival, MNEs need to adhere to the rules and beliefs of local stakeholder groups such as local employees and governments (Suchman, 1995; Gifford & Kestler, 2008) and that it is not enough to let firms 'self-regulate' their CSR activities (Holtbrügge & Dögl, 2012). This view critiques prior assumptions of countries being relatively similar in their internal disposition to CSR whereby MNEs engage in such activities to reduce their liability of foreignness (see Campbell et al., 2012). Rather, local legitimacy implies that MNEs prioritise local stakeholders as the most salient ones when it comes to engaging in and communicating CSR activities as legitimisation strategies (see Rathert, 2016)—especially after a socio-ecological disaster such as that of Vale's Córrego do Feijão mine

collapse in Brazil. This suggests that rather than pursuing an international CSR strategy that MNEs need to be socially responsive to the societal expectations of the host country (see Husted & Allen, 2006). However, there still appears to be a tension in adopting more localised CSR strategies due to the power of MNEs in adopting their home country, or a more global, strategic CSR approach (see Boehe & Barin Cruz, 2010; Jamali, 2010). Here, the tension regards conflicting pressures between international (global) and domestic (local) CSR strategies for MNEs operating in emerging markets (Peng & Pleggenkuhle-Miles, 2009).

Legitimacy is critical for international businesses as survival in a particular host country depends on it. Palazzo and Scherer (2006) pose that civic engagement and interaction as important for legitimising the CSR discourses of international businesses. Turning to this communicative aspect of legitimacy, the wider business field is full of studies regarding how companies communicate their CSR activities through (primarily) corporate reporting and disclosure. However, this communication is unidirectional from the firm outwards and has been critiqued in various ways, which broadly relate to the more *pragmatic* or instrumental perspective of legitimacy (Suchman, 1995). Such a perspective asserts that individuals ascribe legitimacy if they perceive a benefit to be gained (ibid). For example, critique is given that CSR communication is symbolic, driven by the ‘narcissistic concern’ or desire to protect the firm’s image at all costs (see Schaltegger & Burritt, 2018; O’Dwyer, 2002), and/or favours particular salient stakeholders’ (e.g. shareholders’) needs (Spence et al., 2010).

Increasingly, *moral legitimacy* (cf. Suchman, 1995) is put forward to overcome the limitations of communicating CSR to the most salient stakeholder groups by incorporating the views of various actors. It is seen as the only alternative to the more traditional pragmatic legitimacy stance, given that *cognitive legitimacy* exists at the subconscious level of individual (Suchman, 1995).¹ Palazzo and Scherer (2006, p. 76) explain that moral legitimacy regards ‘*giving and considering reasons to justify certain actions, practices, or institutions*’ (emphases in the original). This focuses on an ethical perspective of legitimacy, thus moving beyond self-interest and the business-as-usual paradigm embedded into pragmatic legitimacy forms (see Suchman, 1995). For moral legitimacy, then, participation in discussions of legitimate behaviour by multiple stakeholder groups within society at large is paramount. When related to the context of mining MNEs, therefore, this would imply the need for CSR communication strategies that embrace dialogue with local stakeholder groups to be fully effective.

¹Cognitive legitimacy would mean that an MNE’s CSR approach would be considered appropriate if it aligns with pre-constructed beliefs within a society of accepted practices and taken for granted assumptions (see Suchman, 1995).

2.3 Locally Responsive CSR Strategies for Mining MNEs

As suggested, there has been emerging research attention to the more moral or discursive elements of the CSR activities of MNEs (see, e.g., Dougherty & Olsen, 2014; Selmier et al., 2015). Therefore, local legitimacy is considered particularly important for transformative CSR strategies that aim to positively impact local communities and host countries (see Bartlett & Ghoshal, 2002), moving away from the somewhat global strategic approaches to CSR by MNEs (see Jamali, 2010). Given that the mining sector knows no geographical or socio-political boundaries through the harvesting of the Earth's materials and minerals, but at the same time, the mining activities of MNEs occur within them, it seems intuitive that the local and more moral forms of legitimacy come into play. In this study, this is based on relationships between interested and/or affected parties within the host countries after a socio-ecological disaster. Here, a stakeholder approach to managing relationships within a host country is considered important (Reimann et al., 2012) for regaining legitimacy.

Researchers are unanimous that mining companies need to apply more and more proactive strategies to communicate and mitigate the negative social and environmental impacts of their exploitation activities (see Selmier et al., 2015; Gifford & Kestler, 2008; Rodrigues & Mendes, 2018). From a CSR perspective, this can be seen to address societal expectation and desires, in addition to those required (cf. Carroll, 1991). Based on this background, we aim to explore how the strategic reparation processes of an MNE are communicated and received after a huge socio-ecological disaster. This is framed in consideration of how our case company's CSR communication strategies in the aftermath of the disaster are effective in (re)gaining legitimacy not only in the international sphere, but more particularly, in the local. It is this question that we turn our attention to in the following sections, framed from a legitimacy perspective.

3 Research Design

Given that the aim of this paper is to develop an understanding of the CSR legitimisation strategies adopted by MNEs after a crisis event, this paper concentrates its empirical material on the post-event CSR strategies (i.e. the response measures), rather than on the reasons behind why the tragedy occurred (i.e. the failures in preventative measures). It does this through adopting a case study approach based on the analysis of secondary data relating to the failure of the tailings dam owned by Vale, at Córrego do Feijão mine complex in Brumadinho, Minas Gerais, Brazil. Case studies are best suited for investigating new and poorly understood phenomena, as well as for having the potential to generate new insights into emerging areas such as the dark side of MNE sustainability practices (cf. Eisenhardt & Graebner, 2007; Yin, 2017). Additionally, case studies are particularly useful for

understanding relationships to elaborate on the complexities of a particular context and to bring key dimensions to light (cf. Dubois & Gadde, 2002; Eisenhardt & Graebner, 2007).

3.1 Case Selection and Data Sources

To answer the research question posed in this study, we focus on the MNE Vale. Vale is an interesting MNE as its reputation has gone from being an exemplary company of socially responsible practices in the mining sector (responsible for employment and community building projects in some of the poorest areas of Brazil and also for transparency; O Estado de Sao Paulo, 2013) to becoming responsible for some of the worst social-ecological disasters in Brazilian history.

By drawing on various forms of secondary data (e.g. company reports, press releases, newspaper articles, community reports) from 2019 to the present day (i.e. the aftermath of the disaster), we are able to obtain an overall picture regarding the CSR strategies used by Vale to repair its legitimacy after the socio-ecological crisis. Drawing on the different perspectives from the case organisation, media, community groups, and others who have something to say about how the remediation process has been carried out helps provide an overall understanding of the different response measures put in place by the case company and importantly, their reception by other stakeholders within not only Brazil but internationally. Therefore, from a legitimacy perspective which provides a one-sided image from the company to its stakeholders, we fail to fully understand the perspectives of those other external stakeholders (i.e. citizens, governments, regulators) on if/how legitimacy is regained through the CSR response strategies that Vale has made since the disaster. Table 1 provides an overview of the data sources for this study where internal refers to those produced by Vale, and external to those produced by other parties.

3.2 Data Analysis Procedure

The above listed secondary data sources constitute our empirics for this case on the aftermath of a socio-ecological disaster. The orientation of the data sources, however, relates to how we build an understanding of what remediation strategies have been put in place by Vale in response to the disaster, on the one hand (i.e. the internal perspective of the company), and how these strategies have actually been implemented in practice from the external perspectives of different types of stakeholders. To gain this rounded understanding of how Vale has worked on the clean-up to regain legitimacy, the following analytical procedure was followed. This broadly regards a more qualitative approach to content analysis by focusing on the certain elements of the secondary data that deal specifically with the strategic CSR response measures and their reception (see Schreier, 2012). This means that we did not analyse

Table 1 Data sources

| Type of document | Year produced | Produced by | Length | Orientation (i.e. internal or external) |
|---|---------------|---|-----------|---|
| Risk Management Policy DCA 059/2018 | 2018 | Vale | 3 pages | Internal |
| Vale Code of Conduct | 2020 | Vale | 21 pages | Internal |
| Vale Sustainability Report 2019 | 2020 | Vale | 136 pages | Internal |
| Vale Integrated Report 2020 | 2021 | Vale | 184 pages | Internal |
| Ethics & Compliance Program Report | 2021 | Vale | 14 pages | Internal |
| Reparation Report | 2022 | Vale | 104 pages | Internal |
| Report of the Expert Panel on the Technical Causes of the Failure of Feijão Dam I | 2019 | Expert Panel: Peter K. Robertson, Ph.D. (Chair) Lucas de Melo, Ph.D. David J. Williams, Ph.D. G. Ward Wilson, Ph.D. | 81 pages | External |
| The Global Industrial Standard on Tailings Management | 2020 | International Council on Mining and Metals (ICMM), United Nations Environment Programme (UNEP), and Principles for Responsible Investment (PRI) | 40 pages | External |
| Press Article: “Internal probe confirms Vale knew Brumadinho dam was unsafe” https://www.mining.com/internal-report-confirms-vale-knew-brumadinho-dam-was-unsafe/ | 2020 | Cecilia Jamasmie Minings.com | Online | External |
| Press Article “After two collapses, a third Vale dam at ‘imminent risk of rupture’” https://news.mongabay.com/2021/06/after-two-collapses-a-third-vale-dam-at-imminent-risk-of-rupture/ | 2021 | Juliana Ennes Mongabay.com | Online | External |
| Joint Submission Universal Periodic Review Contributions for the 41st Session | 2022 | Affected people by Mariana and Brumadinho tailings dam failure and civil society organisations | 16 pages | External |

the whole content of, for example, Vale's annual sustainability reports, but only the parts pertinent to the Córrego do Feijão mine complex failure, analysing those in relation to our theoretical perspective of legitimacy. Further still, elements of a more critical discourse analysis are evident given that we were able to analyse the documents and make interpretations of the language used based on a broader understanding of context (cf. Wodak, 2014) from the other secondary data sources. This meant that triangulation occurred through analysing the data sources both independently in relation to the research question and in consideration of one another.

The first step in our analytical procedure overviewed the remediation attempts made by Vale (i.e. Vale's internal voice) and opinions of those (i.e. the external stakeholders' voices) in the aftermath of the 2019 disaster. Phrases were then drawn out if they discussed the strategies, plans, or actions that had occurred, were occurring, or were planned to occur in relation to the remediation and/or Vale's reputation building efforts associated with the disaster. These actions were then clustered in relation to the socio-economic aspects of CSR responses and then the environmental responses.

The second step regarded us sitting together and discussing the contradictions between the two voices in relation to the strategic CSR approaches adopted. This allowed us to elaborate on when strategies, plans, or actions were not met, as well as how they were received by those external stakeholders, arising in various sub-themes for the stakeholders' voice (e.g. scepticism over response measures and external responses with industry impact). Discussions here were then linked back to the literature review section in terms of how the CSR strategies of Vale could be viewed considering those external opinions. From this, we were able to arrive at various issues or tensions that arose between the 'two' perspectives and summarise those in relation to the extant literature. Particularly, this allowed us to ascertain the type and importance of the CSR strategy communicated as local or global for Vale in the aftermath of the disaster and how that was received by external parties.

As a final step, by summarising the key issues from our analysis, we were then able to answer our research question and offer some concluding remarks to develop an understanding of the effects of CSR legitimisation strategies (local and global) adopted by MNEs after crisis events, thus contributing to what we know about CSR from an IB perspective as well as emphasising the importance of MNEs for meeting the SDGs.

4 Findings and Analysis

4.1 Vale's Voice: People, Safety, and Repair

Since I took over the leadership of Vale, a few months after the tragedy of the dam rupture in Brumadinho, I have emphasized as priorities of the company: people, safety and repair.

These three words inspired us to outline the direction that we believe is essential to build a better Vale. (Vale's CEO Eduardo Bartolomeo, Vale Integrated Report, 2020, p. 3)

The year 2019 was significant for Vale due to the Córrego do Feijão iron ore mine dam failure, claiming the lives of 270 people and causing huge ecological and socio-economic damage for the surrounding populations of Minas Gerais, Brazil. Such an event hugely impacted on not only the affected populations, but also Vale in terms of its reputation and finances on the international sphere:

The year [2019] also served as an important period for Vale begin to establish and improve the reparation processes in different territories as well as the company's internal procedures, including the understanding of issues related to community relationships, the safety of operations and risk management. [...] Vale recognizes its responsibility and reaffirms its total commitment to work towards promptly and fairly repairing the damage caused to families, community infrastructure and the environment (Vale Sustainability Report, 2019, p. 14).

The immediate aftermath of the disaster regarded emergency actions, followed by a period of repairing the socio-economic and environmental damage caused to ensure socio-economic recovery in the local context in different ways. Given that Vale's reparation strategies can be considered as attempts to 'make amends' and 'apologise', they can also be considered as attempts to rebuild Vale's reputation and assure citizens in not only the heart of its iron ore mining communities in Brazil, but also on an international scale. Thus, the CSR strategies in the aftermath appear to have a clear focus on local responsiveness at face value to regain legitimacy (cf. Husted & Allen, 2006; Gifford & Kestler, 2008). It therefore becomes a question regarding the degree that these response strategies were driven by reactionary or reputational concerns, over the more responsive strategies that seek to establish a dialogue with those affected (Dougherty & Olsen, 2014; Selmier et al., 2015). And, to elaborate on the extent that Vale adopted a proactive, long-term CSR strategy based on the continual reduction of the social and environmental impacts of its operations (see Aragón-Correa & Sharma, 2003; Lopes & Demajorovic, 2020). It is these strategic attempts—and later how they are received by the affected populations—that we address through the following empirics to build a more nuanced discussion of the smart and potentially unsmart CSR strategies made by international businesses after crises events:

We will never forget Brumadinho. We know that the Integral Reparation Program will never compensate for the loss of family members, friends and colleagues, due to the breach of Dam I of the Córrego do Feijão Mine. We have the responsibility to fulfil a public commitment and, more than ever, create strategies that prioritize actions to create a positive social, environmental, and economic impact, paying special attention to the affected people and communities. (Vale's Integrated Report, 2020, p. 3).

4.1.1 Reparation Assurance Through Strategic Governance

Vale dedicated chapters in its 2020 and 2021 annual sustainability reports to the Córrego do Feijão Mine disaster. It is these chapters that much of our empirics are

drawn from. From a CSR perspective, Vale can be seen as responding directly to societal expectations in a relatively ‘transparent’ way that cannot ‘hide’ this unfortunate event. Additionally, since the event, Vale has adopted more sustainability reporting guidelines, frameworks, and standards which arguably cloud what Vale is really doing by signalling ‘good performance’ through measurements linked to various templates (e.g. GRI indicators, ESG data, the Metals & Mining segment of the Sustainability Accounting Standard [SASB], the Task Force on Climate-related Financial Disclosures [TCFD]; core metrics from the World Economic Forum [WEF], the SDGs, among others).

As a tarnished company, Vale has a lot to remedy, not only in terms of social and environmental impacts for those affected communities, but also its own reputation. On the one hand, Vale appears to be responding through incorporating more ‘sustainability’ into its annual reports. It also appears to be responding by assuring that those affected by the disaster will be compensated for their losses. Vale asserts responsibility through including ‘*a public apology, a guarantee of non-repetition, participatory governance involving the different stakeholders, a commitment to return to the status quo ante, economic or otherwise compensation, among others*’ (Vale Sustainability Report, 2019, p. 16). Vale states that ‘*concrete and tangible actions must be taken involving all levels of the company. To ensure this, the reparation plan must be monitored, evaluated and adjusted throughout its implementation in the short, medium and long term*’. This regards Vale working alongside external parties such as the Extraordinary Independent Consulting Committee for Investigation and the Extraordinary Independent Consulting Committee for Support and Reparation on its ‘Integral Reparation Program’ as well as making a ‘New Pact with Society’ as a key strategic pillar from 2019 onwards in terms of relationship building and community engagement in reparation decision processes:

Since the occurrence of this tragedy, we have endeavoured to dedicate ourselves to rethinking not only the way we work, but also our own vision of the world and of business. [. . .] We will need to invest increasingly in dialogue with our stakeholders and in setting challenging objectives related to the main aspects of our operations. (CEO Eduardo Bartolomeo,— Vale Sustainability Report, 2019 p. 6).

We are deeply connected to the victims and their families in a feeling of solidarity and sorrow for what happened. We understand the scale of the impact caused and our obligation to develop support and repair actions, while working to ensure that something like this never happens again. That is why, from the very beginning, we have committed ourselves to transparency, maintaining a constant dialogue with the entities involved in the recovery process and with the society in general. This concern has extended to our governance as a whole. (Vale’s President of the Board of Directors José Maurício Pereira Coelho, Vale Sustainability Report, 2019, p. 8).

Arguably, then, even though the local CSR response strategies are imperative in the immediate aftermath, Vale still recognises its global legitimacy through its ‘vision of the world and of business’ through its communicated responses.

While it appears that representatives of Vale’s management board are deeply regretful for the tragedy, which signals some sort of moral legitimacy (see Suchman, 1995) and/or corporate responsibility in the affected regions, Vale nevertheless

attributes the disaster to technical faults. This, in part, has been confirmed by an independent panel of experts who state that the failure was due to a sudden strength loss as the dam was too steep and too wet, flawed in its original design and construction in 1976, in addition to the subsequent heightening of the structure over the past 40 years (Expert Panel Technical Report, 2019). However, at the same time, possible triggers for the collapse were attributed to recent blasting processes conducted by Vale in the open pit mine as well as the drilling of boreholes on the day of the collapse. Thus, various state and federal legal sanctions in Brazil have assigned responsibility to Vale in relation to negligence and even homicide (see, e.g., Police Inquiries Numbers 1494/19 and 62/19; Criminal Investigation Process (CIP) No. 0090.19.000013-4 and Police Inquiry No. 019-090-090-002771-001-007977976-69). Arguably, the impact of these legal sanctions also affects the CSR legitimisation strategies in terms of building bridges with the people and governments of Minas Gerais and Brazil as a form of local legitimacy, as well as building its own reputation as a safe, committed employer on the international sphere.

4.1.2 Main Strategic Reparation Actions

A Special Office for Reparation and Development was created by Vale in April 2019 with the twofold mission to (1) *‘integrally repair the damage caused to people and territories with social engagement and transparency’* and (2) *‘to repair, by 2025, all the damage caused to people and territories, considering the environmental, social and economic aspects, with positive legacies, agreed with and embraced by these territories’*. This mission is to be met through objectives of:

... framing agreements through dialogue to ensure integral reparation for all the affected people and territories; repair(ing) damage to those affected in a dignified and respectful manner; Repair(ing) the environmental damage caused to the affected territories; Advanc(ing) with the economic sustainability of the affected territories; Influenc(ing) the improvement of Vale’s internal policies and processes; (and) Influenc(ing) the mining industry to adopt safer processes and practices (Vale Sustainability Report, 2019, p. 15).

This ‘Integral Reparation Program’ thus exhibits key features of a multi-governance structure involving dialogue with those affected as well as government stakeholders along the facets of socio-economic and environmental reparation. It also suggests attempts made by Vale to balance the ‘conflicting demands’ of local and global CSR strategies (Muller, 2006; Peng & Pleggenkuhle-Miles, 2009) as it emphasises the commitment of Vale to the mining industry on an international scale. Local CSR initiatives included a social engagement plan (SEP), which was put in place to ensure citizens could understand the current situation and be involved in participatory knowledge management regarding the socio-economic and environmental reparation actions. Additionally, a Framework Agreement of Integral Reparation was signed in 2021 with continued commitments to reparation of the region, investing EUR 6.70 bn, with projects to be concluded between 2023 and 2028 (see Vale Reparation Report, 2022). This latter example signals to global stakeholders that action

is being taken in the host country to remediate after the crisis event and it is these more concrete strategic actions that we now turn to, before looking into how these have been received by stakeholders as a measure of their success.

Socio-Economic Reparation

The socio-economic reparation efforts of Vale, from the perspective of Vale, appear extensive. Various assistance programmes have been implemented *‘so that communities can deal with the new reality, resume their routines and plan for the future’* (Vale Sustainability Report, 2019, p. 17). For example, social workers and psychologists have been introduced at service stations, community centres, hotels, and schools in the affected region; offering not only counselling and support, but also the *‘referral for homeless people to hotels, registration of family members to receive donations from value’* (ibid.), among others. Epidemiological surveillance has also been installed to map out the potential breeding groups of the *Aedes aegypti* mosquito and apply insecticides as appropriate to prevent further health issues in Brumadinho. A Health Care Programme has also been introduced since 2019 to strengthen primary healthcare and training in the region.

In terms of building relationships with the affected communities as an important CSR strategy (see Costa & Torrecchia, 2018), a team of company representatives *‘has been working locally to maintain the dialogue and facilitate the construction of agreements that make the reparation feasible, including by mapping stakeholders in the impacted regions’* (Vale Sustainability Report, 2019, p. 18). Weekly meetings were held in the year following the disaster which included Vale representatives, community leaders, residents, and prosecutors, among others. Meanwhile, in terms of rebuilding the areas affected, Vale aimed to encourage local tourism in the district of Macacos through a comprehensive urbanisation plan and investments in tourist infrastructure. Strategies to strengthen tourism in the affected areas were designed in collaboration with the Tourism Association of Brumadinho and Region. In the municipalities of Barão de Cocais and Itabirito, as of 2019, Vale planned to clean water course and construct containments for the unstable areas to minimise flooding, as well as fund local sports projects and invest in developing professional training. These urban improvements were outlined in collaboration with researchers from The National Institute of Science and Technology Program, linked to the National Council for Scientific and Technological Development (CNPQ).

Extensive social reparation and financial support have also been to victims of the disaster. For example, the 270 families of the fatal victims received donations, monthly salaries were paid for adults and teenagers living within 1 km of the Paraopeba River from Brumadinho to the city of Pompéu, and emergency aid was paid until October 2020 to those affected by the rupture of the dam. Additional compensation was paid through individual agreements and to the civil defence and fire brigades. There were also huge investments in agricultural training. In addition, *‘Vale carried out the Comprehensive Victim Assistance Program (PAIA) in 2020’* where *‘(a)bout 3,000 people from 1,700 family units received specialized support to*

purchase real estate, finance education, resume agricultural activities, and receive rural technical assistance and assistance for micro entrepreneurs, among other assistance' (Vale Integrated Report, 2020, p. 14).

Finally, dam safety and compliance structures were implemented with many containment and water treatment works completed or in progress by the end of 2019. Notably, in 2020, a compliance department was created. This is in extension to the pre-existing governance structures and compliance documents such as Vale's Code of Conduct (updated 2020), whistle-blower channels, and Risk Management Policy DCA 059/2018:

The guarantee of no repetition has inspired us to work focused on the safety of people and on the risk management of our dams, through the adoption of strict international standards developed after the breach. (President Eduardo Bartolomeo, Vale Reparation Report, 2022).

In this instance, international improvements (i.e. global CSR strategies that involve the development of 'strict international standards') have been the result of this tragic event. This suggests the potential for local learnings to transfer into the global strategies of MNEs, and rather than local and global strategies being juxtaposed (see Muller, 2006; Peng & Pleggenkuhle-Miles, 2009) that learnings can be taken from the local to the global to improve CSR strategies in the industry.

Environmental Reparation

The cost of human life and repairing local economies seems to be prioritised more than the environment in terms of the extent of information provided in Vale's reports. This is perhaps not surprising given the death toll associated with the disaster. However, various environmental reparation strategies are nevertheless addressed by Vale.

Environmental reparation regards the '*preservation of local flora and fauna; removal of tailings on land and within the river, and thereafter assigning them to safe and controlled areas; containment of tailings, with the goal of preventing them from reaching the river in rainy periods; and monitoring and recovery of water and soil quality*' (Vale Sustainability Report, 2019, p. 28). For example, Vale has various projects to treat water and invested in a River Water Treatment Stations in Brumadinho and Alberto Flores. These treatment facilities are additionally open as education centres for residents, public agencies, and schools to learn about water treatment and the recovery of the Paraopeba River. There are also active projects regarding biome recovery. For example, to care for the affected animals and wildlife by the dam rupture, involving a group of veterinarians, biologists, and other environmental experts. A Flora Conservation Programme was implemented in 2019, rescuing '*nearly 1,600 specimens, from around 160 different species*' by the end of that year and a reforestation strategy put in place. More specifically, the Vale Reparation Report (2022) outlines environmental reparation along the lines of residue removal from the Paraopeba River basin, waste management, the monitoring of

water and sediments, and biodiversity. This includes medium range plans to be completed within the next 2–5 years.

4.1.3 A New Pact with Society Through Proximity and Transparency(?)

While all examples of the environmental reparation strategies relate directly to the local context as immediate response measures and the socio-economic strategies bridge the learnings of local factors with the development of global strategies, Vale overall signals a ‘new pact with society’ through its CSR communication in the aftermath of the disaster. There seems to be a change indicated through the words written regarding the way that Vale does business and communicates its CSR:

Vale is writing a new chapter in its history focused on transforming its future, promoting especially the socioeconomic development of the regions where it operates. The company is committed to facilitating this process, with the goal of generating of a positive and lasting legacy. [. . .] The Dam I rupture changed the Company’s management - not only in terms of reviewing its governance, standards of operational excellence and safety, but also in its engagement with its stakeholders and commitments to local communities and society as a whole. (Vale Sustainability Report, 2019, p. 39).

In 2021, Vale entered a 6.79 billion euros Global Agreement with the State of Minas Gerais, the Public Defender’s Office of the State of Minas Gerais and the Federal and State of Minas Gerais Public Ministries. Vale states that ‘*(t)his Agreement brings greater transparency, legitimacy and legal certainty to all those involved*’ (Eduardo Bartolomeo Vale’s CEO, Vale Integrated Report, 2020). From the rhetoric of Vale, it seems as if Vale is adopting more and more proactive strategies in response to a tragic event. That being said, it is now time to look at how others receive Vale’s CSR communication strategies in the aftermath.

4.2 Stakeholders’ Voices

We exist to improve life and transform the future of the people and communities where we operate, together! (Vale’s New Mission, 2020—Vale.com)

The intention behind Vale’s strategic response measures appears to be working alongside stakeholders, which is mentioned as important for the industry to reduce conflict with the local communities that they reside in (e.g. Dougherty & Olsen, 2014; Lopes & Demajorovic, 2020). Working ‘together’ is at the heart of Vale’s new strategic approach and way of doing business. At face value, this image presented by Vale as a company that integrates stakeholders’ viewpoints in the design of response measures, is also reflective of the participatory approaches to successful CSR strategic design indicated in the literature (Costa & Torrecchia, 2018). However, the other voices suggest another, more critical, opinion of Vale’s CSR response strategies.

4.2.1 Scepticism Over Response Measures

The previous section touched upon some of the stakeholders involved in the reparation process (e.g. local authorities, family members of victims, environmental representatives, etc.). As Humphreys (2000) and others (Gifford & Kestler, 2008) suggest, failing to understand the communities which are affected by mining can result in substantial losses for the mining companies. However, it appears that Vale's mentioning of community involvement in the socioeconomic and environmental reparation processes may have been just that—a 'mentioning'—rather than something that was truly integrated through their strategic CSR response.

The Association of Family Members of Victims and Affected People of the rupture of the Córrego Feijão Mine Brumadinho Dam are perhaps the main stakeholder group of the disaster given that their lives and incomes were directly affected. Represented in the Joint Submission Universal Periodic Review Contributions for the 41st Session (see Table 1), the affected people and civil society assert that not only did the Brazilian government fail them in terms of not repeating the 2015 Mariana failure, but through the second failure, there was ultimately a failure of human rights, in relation to the '*violation of the rights of victims and family members and, ultimately, of society itself*'. Here, the 'responsibility' is shifted to a shared responsibility between the Brazilian government and Vale for allowing Vale to repeat its disastrous actions for a second time.

The above-mentioned review from 2022 describes in more detail the lack of reparation that occurred as well as the injustices caused by the Brumadinho tailings dam collapse towards Vale and the Brazilian government. It claims in it that given that the Global Agreement was signed between Vale and the state of Minas Gerais in terms of collective damages to 'homogenous individuals' (i.e. treating all those affected by the disaster as having the same needs to be met in the response measures) that it did not then have the full knowledge of the damage caused by the dam failure. This means that the needs of certain groups were excluded. The periodic review also stated that Vale ignored several important studies on the impact of the failure. This means that the agreed compensation amount of 7.79 billion euros '*cannot translate the demands of the affected communities and ensure an effectively participatory reparation process*' and that those affected have not yet received adequate or appropriate compensation for their losses. The 'affected communities' also report on '*the creation of structures that distort participation, being used to legitimize decision-making processes built in an authoritarian manner, behind closed doors and without any transparency*'. This stands in contrast to what Vale has been saying by suggesting that there is not really the participation and involvement of local communities in the reparation process and that rather, there is a horizontal governance regime in place. This also implies a level of pragmatic or instrumental legitimacy at play, rather than a moral one (see Suchman, 1995) which is implied from Vale's voice given that the Global Agreement favours '*the mining Company's image, since it seeks to convey socio-environmental and socioeconomic responsibility and commitment to reparation*'.

There is general distrust of Vale as a ‘repeat offender’ and the ‘*communities report that the company stopped meeting demands that before the agreement were heard and that it delegates all responsibility since then to the State, which, in turn, remains distant from the reality of the affected territories*’. This perspective signals a corroboration between the MNE and its host country government to the detriment of the affected peoples actually being compensated socially, economically, and environmentally in the aftermath of the dam failure.

4.2.2 External Responses with Industry Impact

Since the disaster, various international bodies have developed strategies to ensure another event like this does not happen again. In the year immediately following the tailings dam collapse, the United Nations Environment Programme (UNEP), the Principles for Responsible Investment (PRI), and the International Council on Mining and Metals (ICMM) launched the Global Industry Standard on Tailings Management. As previously suggested, this standard takes the learnings from a local disaster and translates them into strategies that are adoptable on an international scale. Vale, here, was the catalyst for changes to be made to TSFs worldwide due to the devastating consequences of its second TSF collapse in recent years. This can be viewed as something positive coming from the socio-ecological disaster and implies the importance of MNEs in taking localised learnings onto the international sphere. The Global Industry Standard on Tailings Management has the ambition of ensuring ‘zero harm to people and the environment from tailings facilities’. This international response measure indicates some responsibility on the part of the mining industry and focuses on various principles supporting human rights, interdisciplinary knowledge, design, governance, long-term recovery, and public disclosure.

Making the issue of tailings dams an industry problem, however, is counter-argued with state prosecutors who claimed that ‘*concerns about how unstable the main B1 Dam was, were raised at various points over the course of 16 years but Vale failed to address them*’ (Jamasmie, 2020, see Table 1). This resulted in Fabio Schvartsman, the chief executive of Vale at the time of the incident and 15 other employees being charged with homicide. While this is nothing to do with the strategic response measures of Vale per se, it does indicate a certain scepticism to Vale’s report that the failure was ‘unique’ and that there were ‘no apparent signs of distress prior to failure’ (Vale in Jamasmie, 2020, see Table 1). To be specific, it suggests that Vale may be trying to present a particular image of the company in the post-event space to mitigate some form of responsibility regarding the failure itself as a freak accident. However, a Brazilian government audit report from the Minas Gerais State Labour Department in 2021 suggests that a ‘third’ Vale dam is at ‘imminent risk of rupture’. Thus, a strategic response by Vale in terms of preventative measures for a potential third failure is necessary, even if Vale denies the risk imposed (Ennes, 2021, see Table 1).

4.3 *Tensions Concerning the Response Measures*

What can be learned from both the internal Vale and external stakeholder perspectives is that what Vale presents is not always what is received externally and/or even happening in practice. While indeed we recognise that the ‘truth often lies somewhere in between’, the findings point to various tensions regarding the ability of a powerful MNE, such as Vale, in a global heavy industry, such as mining with its paradoxical sustainability challenges, in regaining its legitimacy through its CSR strategies after a crisis event. What we see is scepticism associated with the strategic responses implemented by the MNE within the more local context of Brazil. In the following, we summarise the various findings regarding the response measures and connect these more explicitly to the literature. This, consequently, sets the scene for our concluding remarks wherein we return to the research question guiding this study.

Finding 1. The legitimising effects of Vale’s CSR communication strategies after a crisis event appear to be based more on pragmatic legitimacy, rather than a moral concern for affected populations.

The two voices within the case point suggest that Vale aims to reinforce its corporate image through ‘words’ as empty rhetoric or promises (that were not upheld to the affected populations) and ‘numbers’ as facts within its internally produced CSR information in the aftermath of the disaster. What this means is that through Vale’s communication documents, Vale can (re)construct its own reputation to regain legitimacy by, for example, emphasising sustainability at the heart of its vision and through adopting more and more sustainability reporting frameworks, guidelines, and indices which ‘signal’ action to external stakeholders.

More specifically, our analysis suggests that the initial strategy adopted by Vale was based on reactionary and reputational concerns. Further, it appears that responsibility was partially mitigated by Vale in its assertion that the collapse came down to bad weather conditions and bad luck, as well as through the combined responsibility of the Brazilian state to its people and the storage of TSFs as an international problem. In summary, it appears that the power of Vale as a multinational in this case creates a symbolic type of accountability for the disaster based on presenting an image of the company through clouding techniques (i.e. providing fancy frameworks, standards, and metrics) as ‘cover up’ (see Banerjee, 2008). This indicates a more pragmatic form of CSR legitimisation strategies at the expense of involving those affected within Brazil in more ‘moral’ ways (cf. Suchman, 1995). This has the countereffect in the local context of undermining the legitimacy of Vale.

Finding 2. Local legitimacy is, at least, symbolically important for Vale when communicating its CSR response strategies and has the potential to affect global CSR strategies.

Related to the first finding, the extent of locally responsive CSR strategies as being truly integrated by Vale is questionable through our findings. This stands in contrast to the emphasis in the literature on the importance of local involvement and that it is not enough to let firms ‘self-regulate’ their CSR activities (see Gifford &

Kestler, 2008; Holtbrügge & Dögl, 2012). It appears that more importance is attached by Vale to signing ‘pacts’ and making promises to affected populations which are not actually met in practice. Local communities are not included in strategic response measures. This would imply at face value that local legitimacy is important for Vale, but rather than local affected populations being important, that is beyond the ‘words’ of importance indicated in Vale’s reports, it is in fact the local governments of the host country which are important for Vale to continue doing business in Brazil. Here, the Brazilian government and local authorities in the affected regions become the most salient stakeholder group for Vale to communicate its CSR strategies to and to legitimise its continued operations in Brazil. This also provides support to the previous finding that a more pragmatic approach to legitimacy is adopted by Vale, supported by the ‘business-as-usual paradigm’ where the governments and political infrastructure of host countries are considered the most salient stakeholders for MNEs.

That being said, those situated at a greater distance from Vale (i.e. not in Brazil and in the international sphere) might think that Vale’s response measures were effective based purely on a reading of Vale’s CSR response strategies from internal reports. There was also the added dimension that an international standard on TSFs was the outcome of this socio-ecological disaster, implying that learnings from the local crisis events of MNEs have the potential to positively contribute sustainably and thus the SDGs to international industries, such as that of mining.

Together, such findings suggest that distance from a crisis event can affect how strategic CSR responses are received (i.e. as successful response strategies and as instances for learning). This raises another important question: *Could it be that the closer one is to a socio-ecological disaster, the more critical one is to an MNEs CSR legitimisation strategies in the aftermath?* If this is the case, it becomes imperative for MNEs to adopt different strategies to meet the expectations of the different ‘social contracts’ (local, national, and international) that it is expected to meet. Specifically, an approach based on moral legitimacy is perhaps more important in the local context of such disasters and a more pragmatic approach may well be enough on the international sphere (see Suchman, 1995). It was critical for the local communities in this case that Vale did not state things through its CSR communication that it could not uphold in practice. This was decisive in forming the stakeholders’ voices within the local, Brazilian context where the people, economy, and environment were more profoundly affected.

5 Concluding Remarks

Vale certainly has both what can be regarded as ‘asserted’ (a felt obligation from within and through its strategic actions) and ‘attributed’ (obligation to respond by the Brazilian federal and state prosecutors and its social contract with society) responsibility for the Córrego do Feijão mine collapse in 2019 which claimed the lives of over 270 people in Minas Gerais, Brazil. However, the degree to which the strategic

CSR legitimisation strategies of Vale connected to this have been positively received by the affected populations (i.e. local legitimacy) and other actors within the mining industry (i.e. global legitimacy) is debatable.

Failures of tailings dams are common in the mining industry. As such, a complex twofold accountability position is inferred on the international sphere. On the one hand, responsibility is inadvertently attributed to other, international actors within the mining industry and arguably to the governments of the countries where such mining activities take place. On the other hand, this is not the first time that Vale has been at the centre of such an incident, leading the socio-political landscape to question why this has happened yet again within Brazilian communities that rely so heavily on the mining industry for their very prosperity. We see both in this case.

Aiming to develop an understanding of the effects of CSR legitimisation strategies (as local and/or global) adopted by MNEs after crisis events through looking at the case of Vale, we asked how the strategic reparation processes (economic, ecological, and social) of an MNE are communicated and received after a huge socio-ecological disaster. Returning to this question, we find that the strategic reparation processes may well look good at face value. Vale adopted various standards, remediation strategies and claimed to adopt participatory approaches to these. However, a closer analysis revealed that these strategic response measures were mainly there to help rebuild the reputation and image of Vale on the international sphere as an MNE from a more pragmatic legitimacy stance (see Suchman, 1995). This is because the voices of the 'local' Brazilian affected communities signalled concerns over human rights, exclusion from decision-making, and a lack of transparency in the post-disaster timeline. These concerns, however, largely remained within the local context of Brazil.

Vale is a huge international actor in the mining industry, and what this case illustrates is that through a reading of Vale's own internal reports and documents, we can see some rather clear and 'smart' strategies to rebuild its image at the international level. It is only when we go more deeply into the perspectives of those closer to the tragedy that we could question some of Vale's strategies as unsmart moves. This requires IB researchers to be more critical regarding the perspectives and viewpoints of actors in the local contexts of host countries in terms of the CSR strategies of MNEs.

Overall, Vale's case shows complexity and tensions regarding how an MNE responds to an unsustainable crisis event and communicates its CSR response strategies related to it in the post-event space to regain legitimacy. Through this, we contribute to an emerging area regarding CSR in MNEs from an IB perspective. MNEs are expected to lead the way regarding the SDGs, although unfortunately, 'stuff happens' no matter how big or small the company is. But, what appears to be important for MNEs to regain legitimacy in the aftermath of a socio-ecological disaster is not only the suggestion of, but the actual implementation of, local legitimisation strategies that embrace the voices of those most significantly affected.

This is not the first case like this, and it will not be the last. So, we conclude with some research implications and practical advice for MNEs 'cleaning up' after socio-ecological crises to ensure that their seemingly smart CSR strategies from a global

perspective do not end up being received as unsmart ones by the affected communities.

5.1 Research Implications and Future Research Directions

While prior research has recognised the importance of MNEs as agents for sustainable transformation (see Van Tulder et al., 2021; Lopes & Demajorovic, 2020), we know little about how companies develop strategic reparation actions and capabilities to regain reputation by rebuilding legitimacy after a socio-ecological disaster. Therefore, this study offers an analysis of the aftermath of unsustainable events by highlighting the various paradoxes and tensions concerning the response measures of an MNE after a huge socio-ecological disaster. In doing so, our findings make the following contributions to the IB literature.

First, we contribute by suggesting the need for MNEs to develop strategies that are conditioned by distance. More specifically, our findings suggest that when rebuilding their reputation, MNEs must implement different strategies for both local and international markets. While communicating CSR approaches through reports and disclosure may be enough to build an MNE's reputation internationally, local markets (i.e. more specifically the communities affected, in addition to local and federal governments) need more tailored response strategies that move beyond symbolically communicating CSR, towards ensuring that both the desired and expected responsibilities of the MNE (cf. Carroll, 1991) are actually met through action. This means that the local community's voice becomes more salient (but not only local governments and authorities, but also affected populations) and that more developed CSR response strategies should not only be designed, but also implemented in the geo-political spaces that are closer to the disaster. This contributes by suggesting that any contradiction between MNEs' discourse and practice may increase the likelihood of local community backlash, which could escalate into greater stakeholder reactions against the firm on the more international sphere.

Second, our study suggests that a socio-ecological disaster caused by an MNE can discredit not only the firm that caused the disaster but also the reputation of the other firms in the same industry that share a common reputational consequence (c.f. Fonseca, 2010; do Carmo et al., 2017). This implies that MNEs working in an industry subject to such socio-ecological disasters such as mining must work together through the development of specific public policies and standards on a global scale. Thus, there is likely to be changes in the overall regulatory compliance for all firms operating in that specific industry when it comes to various aspects of sustainability. Here, local learnings have the potential to develop the global CSR strategies of MNEs. This expands prior research that focuses on the tensions between global and local strategies (e.g. Muller, 2006; Peng & Pleggenkuhle-Miles, 2009) by suggesting the connectivity between the 'two'.

Third, regarding MNE legitimacy and CSR, we contribute by indicating that more attention needs to be paid to MNEs in the transition from more pragmatic stances on

legitimacy towards those driven by moral concerns (Suchman, 1995). This is necessary for legitimacy to be gained by a wider range of stakeholders, not only those with the traditionally ‘most salient’ concerns driven by profit (e.g. investors and owners).

Finally, our study contributes to recent calls for more research on international CSR, particularly in emerging and developing countries as MNE’s home country (see Pisani et al., 2017; Zhao et al., 2018). Our findings add to this call by discussing the social-ecological disaster caused by Vale in Brazil and shed light on a discussion of both the positive and negative contributions to meeting the SDGs for the mining industry that exists within an inherently complex sustainability position. We do this by illustrating the transformative potential of MNEs in this industry for developing standards that seek to promote clean water and sanitation (SDG6), climate action (SDG13), and life on land (SDG15) as lessons from crisis events to ensure that such events do not happen again.

Future research should delve deeper into what we label as ‘the dark side of international business’ through damage control practices in the aftermath of unsustainable events. Rather than assuming MNEs are international leaders on how to do CSR and sustainability well, our case has illustrated the ways through which MNEs develop CSR strategies to remedy particular unsustainable events and legitimise themselves. Looking into other similar cases and drawing more on primary first-hand data such as interviews with affected populations and company representatives, would allow us to develop a typology in relation to the characteristics of strategic CSR responses made by MNEs and the factors that influence the likelihood of their success in maintaining and/or regaining both local and global legitimacy.

5.2 Managerial Implications

Our study helps managers better understand the outcomes associated with a firm’s unsustainable practices and the risks associated when communicating something that a company does not do in practice. Specifically, the case of Vale highlights that an ‘empty rhetoric’ in terms of communicating CSR can result in local backlash which could be detrimental for the company’s survival in a particular market. Our case suggests that MNEs need to develop their socio-ecological management capabilities (i.e. the ability to control and manage the socio-ecological safety of its operations) in a substantive sense. This would enable them to comply with the economic, legal, ethical, and philanthropic responsibilities connected to CSR (cf. Carroll, 1991) through signalling commitment to the securing safety in their operations.

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Wine Tourism as a Catalyst for the Sustainable Development Goals: The Case of Casa Sicilia Winery



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Abstract Currently, wine tourism is one of the most important and promising tourism modalities, given that it is linked to the new consumption patterns of tourists based on the importance of the experience, as well as on a shorter duration and a greater frequency in the number of visits. This type of tourism favors the territorial development of wine regions by promoting the gastronomy of the territory, protecting the tangible and intangible heritage and generating economic wealth in the territory. Therefore, given the recognized capacity of this type of tourism to improve the environment in which wineries operate, this study proposes the existence of a positive association between wine tourism and the achievement of the SDGs approved by the United Nations in 2015, within the 2030 Agenda for Sustainable Development. In order to carry out this task, the case method is used. The results obtained show that wine tourism catalyzes the achievement of SDGs 3, 5, 6, 7, 8, 8, 9, 11, 12, 13, 15, 17, being a strategic activity to improve the sustainability of wineries in its triple dimension (economic, social and environmental).

1 Introduction

Wine tourism represents the appropriate marriage between wine production and tourism, being defined in a broad sense as the experience associated with the visit of vineyards, wineries and wine demonstrations in which wine tasting is the main element (Hall et al., 2000). Thus, while wine production is based on winemaking, wine tourism focuses on attracting visitors, thus acting as a distribution channel for the direct sale of wine in the winery.

There are numerous lines of research in the field of wine tourism. In this regard, Gómez et al. (2019) identify several active research fronts around the subject, among which the following stand out: (1) territorial development, (2) wine routes, (3) wine

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tourists' behavior, (4) tasting and winery experience, (5) wine events and festivals, and (6) wine marketing and promotion. Within this classification, the present work is framed in the territorial development front. This line of research analyzes the link between wine tourism and economic and regional development. In particular, the research addresses issues related to the challenges and potential of wine tourism for regional development and sustainability, the comparison of wine tourism destinations, as well as the importance of this activity to enhance regional and national branding. The study aims to specifically analyze the extent to which this form of tourism enables the Sustainable Development Goals (SDGs) developed by the United Nations to be met, given that, as demonstrated through the literature review, little attention has been paid to this link. In fact, to the best of our knowledge, there are no previous studies that have analyzed the wine tourism-SDG link in the Spanish wine context. In order to overcome this research gap, this study aims to analyze this association using the case method.

Wine tourism has the potential to advance progress toward the SDGs in various respects. To begin with, it can assist in the propagation of energy- and resource-saving practices implemented by wineries, thereby enhancing the environmental consciousness of wine tourists (Trigo & Silva, 2022). Additionally, this form of tourism can create job opportunities and economic growth in areas of wine cultivation in which the activity is carried out (Andrade-Suárez & Caamaño-Franco, 2020). Moreover, it can lead to the safeguarding of culture and heritage, favoring the conservation of the cultural heritage of the concerned regions (Nave et al., 2021). However, recent research suggests that wine tourism can be a double-edged sword for wineries and wine regions (Sun & Drakeman, 2022).

In this sense, there is an open debate between those who defend the benefits that wine tourism can bring to the local communities where it is developed and those who consider that the impacts of the activity can be unfavorable for the local community. As for the more critical positions, we find the vision contributed by Poitras and Donald (2006) who analyze the reactions of local residents to the development of wine tourism practices in the Canadian city of Oliver. They show how residents consider that wine tourism could be harmful to their community, due to the volume of investment required to prepare the small towns where the activity is developed for tourists, the overexploitation of the activity that could lead to changes in the traditional lifestyle of the area, or the possible conflicts between the local resident community and visitors. In relation to the positions defending wine tourism as a driver of sustainability in the sector, we could highlight: the possibility of decreasing negative externalities in all phases of the wine value chain, adherence to sustainability commitments in line with other sectors of the economy, obtaining synergies with other typologies of tourism, or the conservation of wine heritage of tangible and intangible nature (Barbosa et al., 2018). In order to achieve the research objective, the research is structured as follows. After this introductory section, Sect. 2 presents the literature review carried out, Sect. 3 explains the methodology followed in the study, Sect. 4 presents the results and, finally, Sect. 5 reflects on the main conclusions, limitations, and future lines of research.

2 Theoretical Background

The wine industry possesses unique attributes that emphasize the significance of preserving and respecting its surrounding environment (Annunziata et al., 2018). Given its reliance on climatic factors, the industry showcases heightened sensitivity toward safeguarding the natural resources and environmental well-being within wine-producing regions.

In recent years, there has been a notable rise in the number of wine consumers who prioritize environmental factors when making purchasing decisions. This growing trend has led wineries to adopt innovative measures aimed at mitigating the environmental footprint of their operations (Fuentes-Fernández et al., 2022). To achieve the principles of sustainability, wineries' activities should be based on three main axes: (1) sustainable practices in viticulture, (2) sustainable production in the winery, and (3) the development of sustainable wine tourism.

Regarding the first axis, there is a diffusion of sustainable practices in viticulture and winemaking with grapes from organic farming (organic or ecological wines). Based on data released by the Ministry of Agriculture, Fisheries, and Food in 2021, the Spanish wine industry made a significant contribution to organic viticulture, accounting for over 130,000 ha of organic vineyards. This area represented approximately 13.4% of the total vineyard land dedicated to winemaking in Spain. It is worth noting that the organic vineyard sector has experienced substantial growth over the past 5 years, with a remarkable increase of 35.8% from 2015 to 2020. This expansion of organic vineyards aligns with the observed consumer demand for sustainable and organic products, indicating a growing awareness among consumers (Szolnoki & Hauck, 2020).

When considering the second aspect, the management of water and energy emerges as a prominent concern due to the substantial water and electricity demands associated with wine production. Consequently, it becomes imperative to employ these limited resources efficiently. It is noteworthy that vine cultivation primarily relies on rainwater, constituting nearly 60% of the overall cultivated area, as reported by the Survey on Crop Areas and Yields in Spain for 2021. The winemaking process also generates wastewater and organic waste. In this regard, it is worth highlighting that approximately 80% of grapes are utilized for winemaking purposes, while the remaining 20% comprises by-products and waste materials (Maicas & Mateo, 2020). It is possible to harness some of these winemaking by-products by extracting chemical compounds for applications in the food, cosmetic, and pharmaceutical industries. Additionally, they can be utilized for the cultivation of microorganisms (bioconversion) such as yeasts, molds, and bacteria (Silvia et al., 2021). Such valorization is important to properly manage the environmental impact of the wine sector, through the appropriate treatment of the by-products and wastes generated.

With regard to the third axis, wine tourism can be conceived as a tourism product capable of improving the profitability of wineries while promoting the social and environmental development of the territory in which they are located (Martínez-Falcó et al., 2023a). For this reason, it is possible to affirm that the development of

wine tourism experiences by wineries is closely related to the economic, social, and environmental sustainability of wine-growing territories (Andrade-Suárez et al., 2020). In fact, the European Charter for Wine Tourism (2006), which sets out the foundations of wine tourism in the old continent, states that wine-growing territories must commit to and give absolute priority to the principles of sustainable development.

The implementation of wine tourism activities allows wineries to increase their profitability while improving their differentiation (Marco-Lajara et al., 2022a). This is because they can sell their products directly to consumers, acquiring the margin that distributors would keep, in addition to being able to promote incremental and cross-selling with other products offered by the wineries (such as oils, souvenirs, etc.). This activity is also capable of generating brand ambassadors, with the long-term benefits that this entails (Fuentes-Fernández et al., 2022).

This type of tourism also favors territorial development, given that it promotes the gastronomy of the territory, protects the tangible and intangible heritage, and generates economic wealth in the wine-growing territory, favoring the generation and retention of employment (Marco-Lajara et al., 2022b). Moreover, if a winery decides to join a wine route, it will enjoy additional benefits to those of the wine tourism activity itself, since by belonging to an organization formed by a multitude of public and private institutions, wineries can improve their communication and knowledge acquisition, benefit from the image, publicity, and reputation associated with the wine route, as well as generate synergies with other members (such as restaurants, hostels, hotels, etc.) to improve their wine tourism product (Festa et al., 2020).

Therefore, given the recognized capacity of this type of tourism to improve the sustainability of wineries, its development may involve the achievement of the SDGs approved by the United Nations in 2015, within the 2030 Agenda for Sustainable Development. The Spanish Wine Federation (FEV, for its acronym in Spanish) has identified various actions within the wine industry which align with the Sustainable Development Goals (SDGs). These actions encompass a range of areas, including promoting moderate wine consumption (SDG 3—Health and well-being), fostering gender equality (SDG 5—Gender equality), implementing sustainable water resource management practices (SDG 6—Clean water and sanitation), adopting renewable energy sources (SDG 7—Affordable and clean energy), contributing to economic growth (SDG 8—Decent work and economic growth), driving technological innovation (SDG 9—Industry, innovation and infrastructure), safeguarding cultural heritage (SDG 11—Sustainable cities and communities), encouraging sustainable production practices (SDG 12—Responsible production and consumption), addressing climate change (SDG 13—Climate action), preserving biodiversity and soil health (SDG 15—Life on land), and fostering collaborative partnerships (SDG 17—Partnerships to achieve the goals).

With respect to the SDGs associated with environmental preservation, Trigo and Silva (2022) have suggested that wine tourism can serve to enhance the environmental consciousness of wine tourists by implementing educational and environmental awareness activities, encouraging sustainable production practices at the

winery, and arranging walking or cycling tours to showcase the environmental initiatives implemented in the vineyards.

In terms of social practices linked to the SDGs, Frost et al. (2020) contend that wine tourism can aid in the dissemination of wine culture by providing visitors the opportunity to gain a comprehensive understanding and knowledge of the processes and traditions of winemaking. Moreover, they posited that this may lead to an enhanced appreciation of the wine heritage. Similarly, Martínez-Falcó et al. (2023b) argued that wine tourism can aid in the betterment of the society in which wineries are situated by creating jobs (such as tour guides, service personnel, and other workers associated with the sector) and by improving the education of the community regarding the wines of a particular wine-growing region. In addition, Oltean & Gabor (2022) concluded that wine tourists can be educated on winemaking processes, different types of wines, tasting methods and other aspects related to wine culture, thus deepening their knowledge about the region's wine wealth and, as a consequence, their appreciation for it.

With regard to the economic SDGs, Sigala (2020) emphasizes the importance of wine tourism in relation to the profitability of wineries and wine-growing territories, due to the acquisition of the distributor's margin, increased and cross-selling opportunities, the formation of brand ambassadors, and the potential for the creation of an affective bond between the winery and its customers.

Despite the role played by the three aforementioned axes to improve the economic, social, and environmental sustainability of wineries and, therefore, to favor the achievement of the SDGs, there is little academic literature that has analyzed the fulfillment of the SDGs in the wine tourism context. In fact, as can be seen from Table 1, only eight publications indexed in the Web of Science database have been identified which have addressed this objective. The identified scientific production is mainly focused on linking sustainable production (Zhang & Carboni, 2021; Merino-Aranda et al. 2021; Mozas-Moral et al. 2021; Cavicchi & Vagnoni, 2021) and organic viticulture (Siepmann & Nicholas, 2018; Novara et al. 2021) with the fulfillment of the SDGs. The research by Cristófol et al. (2021) is the only one that addresses SDG compliance from the development of wine tourism activities, such as wine events. This represents a research opportunity, given that the link between wine tourism and the achievement of the SDGs has received little attention. The present research aims precisely to deepen this line of investigation through an empirical analysis developed in the Spanish wine context. For this reason and based on the literature review carried out, the following research proposal is proposed:

Proposition 1 *The wine tourism activities developed by wineries favor the fulfillment of the SDGs.*

Table 1 Empirical publications on the SDGs in the wine industry

| Authors | Title | Journal | Approaches | Objectives | Country/ Geographic region |
|------------------------------|--|---|--------------|---|---|
| Siepmann and Nicholas (2018) | German Winegrowers' Motives and Barriers to Convert to Organic Farming | Sustainability | Qualitative | The study aims to analyze the factors of success and failure in the implementation of organic farming in the German wine context. | Alemania/ Palatinato y Rheinhesen |
| Zhang and Carboni (2021) | The Sustainable Project Management Utilization in French Wineries While Adapting to Climate Change | European Journal of Sustainable Development | Mixed | The research aims to analyze the catalysts for the development of sustainable programs in French wineries. | France |
| Cristófol et al. (2021) | Transmission of Place Branding Values through Experiential Events: Wine BC Case Study | Sustainability | Mixed | The study analyzes the transmission of Canadian wineries' values through the generation of wine events. | Canada/British Columbia |
| Novara et al. (2021) | Cover crop management and water conservation in vineyard and olive orchards | Soil & Tillage Research | Quantitative | Research analyzes ways to properly manage soil and water for vineyard and olive grove cultivation | Mediterranean countries |
| Merino-Aranda et al. (2021) | Strengthening Efforts to Protect and Safeguard the Industrial Cultural Heritage in Montilla-Moriles (PDO). Characterization of Historic Wineries | Sustainability | Quantitative | The study analyzes and characterizes the industrial heritage linked to the winemaking activity in the Protected Designation of Origin (PDO) Montilla-Moriles. | Spain |
| Mozas-Moral et al. (2021) | The role of the SDGs as enhancers of the performance of Spanish wine cooperatives | Technological Forecasting and Social Change | Qualitative | The study analyzes the factors linked to the achievement of the SDGs that can improve the performance of Spanish cooperatives. | Spain |
| Cavicchi and Vagnoni (2021) | The role of performance measurement in assessing the contribution of circular economy to the sustainability of a wine value chain | British Food Journal | Qualitative | The research aims to analyze the extent to which wine cooperatives develop and quantify circular economy strategies. | Italy |
| | | | Quantitative | | Portugal |

| | | | | | |
|-----------------------|--|----------------------------------|--|---|--|
| Assumma et al. (2022) | Scenario building model to support the resilience planning of winemaking regions: The case of the Douro territory (Portugal) | Science of the Total Environment | | The study proposes a model to ensure the resilience and ecological future of the Douro wine-growing area. | |
|-----------------------|--|----------------------------------|--|---|--|

Source: Own elaboration

3 Methodology

To facilitate the proper understanding of the methodological part, this section is structured in three blocks: (1) sample selection, (2) data collection, and (3) data analysis.

3.1 Sample Selection

This study follows a qualitative approach based on the case study. For this reason, the selection of the sample is a crucial element to ensure the quality of the research, since it undoubtedly influences the results and conclusions drawn from it. In particular, the single case method is used in order to study the wine tourism-SDGs link in depth through the study of a revealing case. This typology of case study allows to obtain a broader knowledge of the phenomenon under study compared to other modalities, such as the multiple case method (Rashid et al., 2019). Despite using non-probabilistic sampling for the selection of the case to be studied, four criteria were established for its identification. First, the winery had to offer wine tourism activities, in general, and be adhered to one of the 34 existing wine routes in Spain, in particular. Secondly, it had to have integrated environmental management into its operations before other companies in the Spanish wine sector. Thirdly, its wine tourism offer had to be linked to other types of tourism, such as cultural tourism or gastronomic tourism, among others. Fourthly, the winery had to advertise the wine tourism activities offered on its corporate website, as well as its commitment to society and the environment in which it operates. These requirements guaranteed the suitability of the selected case, given that the wineries that met the aforementioned criteria developed wine tourism activities and, in addition, were sensitive to the territory and society in which they operated, guaranteeing the obtaining of relevant results to deepen the association between wine tourism and the fulfillment of the SDGs. After an initial screening, it was decided to select Casa Sicilia wineries for meeting the four criteria previously adopted.

3.2 Data Collection

To proceed with the data collection, triangulation was used to increase the reliability and validity of the study while improving the quantity and quality of the information collected. This triangulation was based on the use of three sources of data: (1) in-depth interview with the head of wine tourism—Begoña Hernández Agustí—on September 10, 2021 (1 one-hour duration); (2) direct observation (visit to the winery and contact with employees); (3) access to internal documentation

(newsletters, best practices manual, code of ethics, etc.) and external documentation of the winery (press releases, corporate website, promotional videos, etc.).

3.3 Data Analysis

The case study is a widely used methodology in the social sciences in general, and in management in particular, since its use makes it possible to reconceptualize and extend the existing literature. For this reason, this method can lead to the generation of new scientific knowledge. To proceed with the analysis of the information, we first proceeded to explore the previous academic literature on the research field of wine tourism and the SDGs. This allowed us to formulate the questions of the script followed in the in-depth interview (see Annex 1). Secondly, we proceeded to conduct an exhaustive analysis of the Casa Sicilia winery in order to identify its suitability for this study. Thirdly, we proceeded to collect both primary and secondary information, as explained in the previous subsection. It should be noted that the interview began with the formulation of general questions to learn about the history of the winery and the importance of wine tourism for the winery. Thus, as the interview progressed, the degree of specificity of the questions increased as we tried to link the wine tourism activity with the degree of commitment to the SDGs by the winery. The structured interview lasted one hour and was recorded in its entirety and subsequently transcribed. During the visit to the facilities, it was possible to talk to other members of the company staff, as well as to ask some of the questions asked in the personal interview. Data collection was stopped when the data obtained gave rise to an adequate understanding of the phenomenon under study. Once the transcription was done, it was shared with the interviewee for her consent. Finally, a summary table on the key content of the interview was made.

4 Results

The presentation of the results is composed of two parts: (1) history and terroir and (2) wine tourism and SDG compliance.

4.1 History and Terroir

Casa Sicilia is a winery located in the municipality of Novelda, located in the region of Medio Vinalopó. It was founded in 1707 and has its origin in the Heretat de Cesilia created by the Marquis de la Romana. The system of “heretats” was a set of lands united with a criterion of exploitation, which consisted of a house, an orchard, and a quantity of land destined to the cultivation of cereals and vineyards, system

that was chosen by King Jaume I for the repopulation and colonization of the conquered lands.

At present, the estate where the winery is located is still on the outskirts of Novelda, in the same place where the heretat of the Marquis de la Romana was born, extending over four areas of the town: Alcaidías, Ledua, La Mola, and Sicilia, being located in a congost or gorge, a short distance from the hill of La Mola, where the Sanctuary of Santa María Magdalena and the Castle of La Mola are located. The winery belongs to the Arias family, which acquired the estate in 1984 to develop an ambitious winemaking project. It was Don Joaquín Arias López who acquired the company and integrated it into the holding Vectalia, being his son Antonio Arias at the head of this business group at present.

The 900 m² winery has 6 truncated cone fermentation tanks and one stabilization tank. Its barrels consist of 320 units, most of them French (70%) and the rest American (30%). The estate also has a multifunctional hall of 280 m², equipped with air conditioning, heating, sound system and screen, an outdoor terrace of 310 m², with views of the vineyard, the Castle of La Mola and the Sanctuary of Santa Maria Magdalena, an indoor lounge, decorated with period antiques with a capacity for 18 people and another smaller lounge with a capacity for 12 people.

Casa Sicilia has opted to follow a sustainable and environmentally friendly approach, through an ecological and balanced production, without the use of synthetic chemicals such as insecticides and fertilizers in the vineyards. In 2009, the entire vineyard was converted to organically grown grapes. This guarantees healthier and higher quality wines. In fact, organic viticulture is the main characteristic of the personality and nature of Casa Sicilia wines. Regarding the characteristics of the estate's soil, it has a high limestone content with a richness in iron oxides that balances and reduces the problems of lack of chlorophyll in the foliage. The presence of clay and gypsum in the northern zone of the estate, associated with a low organic matter content, allows for good aromatic expression and ensures good structure for the reds; in contrast, the southern zone is made up of river alluvial gravels and silt, which makes the white varieties adapt very well to these light, fresh soils. In addition to the above, the climate of the Mediterranean zone delays the ripening of the grapes and maintains very low humidity throughout the year, protecting them from cryptogamic vine diseases that cause damage to the branches and grapes.

Each step of the winemaking process is meticulously cared for by a team of winemakers who, using the most advanced viticulture techniques, aim to ensure that the wines of the winery reveal the qualities and peculiarities of the Mediterranean terroir in which the vineyards are located, taking care of the wine production cycle from harvesting to bottling. The challenge for the winemakers and the entire team is to achieve grapes that reflect the character and identity of the variety to which they correspond without being tarnished by flavors or aromas belonging to chemical residues, trying to increase the fertility of the growing soil through natural resources. Hence, Casa Sicilia's vineyards are rigorously supervised by the Organic Agriculture Committee of the Valencian Community, which issues the organic certification that guarantees that the products have been produced or elaborated following the

rules of organic agriculture, and that they have been controlled throughout the process of production, preparation, packaging, and marketing.

The dominant grape and protagonist of the winery's vineyards is the native Monastrell grape. Other varieties such as Merlot, Cabernet Sauvignon, Petit Verdot, and Syrah are also grown for the reds, and Albariño, Macabeo, Moscatel, Malvasía, and Sauvignon blanco for the whites. The juice from these grapes is used to produce wine marketed under eight brands: Cardenal Álvarez, Aledua, Ad Gaude, Lizana, Heretat de Cecilia, Azal, Señor de Sirera, and Casa Sicilia. These brands have achieved great commercial success, having received various international awards and recognitions, given their clear commitment to obtain a quality product through native varieties. The greatest number of recognitions have been received by the rosé wines, Cesilia Rosé 2018 and Cesilia Rosé La Réserve, with numerous medals in different competitions, among the most recent are: the prize of the Association of Sommeliers Province of Alicante to the best Alicante PDO Wines awarded in 2022 (Silver Medal Casa Sicilia Wine) or the prize of the XIX International Wine Competition Bacchus awarded in 2021 (Silver Medal Cecilia Rosé La Réserve).

4.2 Wine Tourism and Compliance with the SDGs

The wine tourism activities carried out by the winery capitalize on the heritage of the territory, while offering a unique experience to wine tourists who come to its facilities. Casa Sicilia promotes responsible behavior among its visitors, as it stresses the importance of responsible wine consumption during wine tourism activities (see Table 2). This awareness is of utmost importance considering that more than 90% of its visitors arrive at the winery by private car. The winery also seeks to strengthen this commitment by joining the Wine in Moderation program in the medium term. Therefore, through wine tourism, the winery is able to meet SDG 3 related to health and wellness.

With regard to the composition of the winery's staff, there is parity between men and women, with wine tourism being an activity developed mainly by women. This equality between men and women allows the winery to comply with the SDG associated with gender equality. Casa Sicilia also explains through its wine tourism activities how it saves water and energy resources, given that, on the one hand, they explain that the cultivation is rainfed, with the consequent water savings that this entails and, on the other hand, they explain how they take advantage of the open spaces (through their windows), as well as the use of low-consumption lights, thus reducing the energy consumption of the winery. This effort to save water and energy resources, transmitted in wine tourism activities to tourists, makes it possible to comply with SDG 6 and 7, related to clean water and affordable energy. The findings of this study are in agreement with those of Trigo and Silva (2022), which demonstrate that wine tourism can be conceived as a platform to spread information on the environmental practices of the winery, as well as an approach to raise the environmental consciousness of wine tourists.

Table 2 Content analysis of the in-depth interview

| SDG | Textual quotation |
|---|---|
| SDG 3—Health and well-being | “During the wine tourism activity, the importance of responsible consumption and the need not to drink in excess if you have come with your private car is emphasized.” |
| SDG 5—Gender equality | “In the winery there is a certain parity between men and women. It is true that we are mainly women in charge of wine tourism.” |
| SDG 6—Clean water and sanitation | “During the wine tourism visit, it is explained how the winery saves water resources. For example, it is explained that the cultivation is rainfed. Therefore, we use almost no water.” |
| SDG 7—Affordable and clean energy | “Here the lights are always turned off, we don’t need to have the lights on all day. In addition, they are low-consumption lights. We take advantage of natural light, because we have open spaces. In the warehouse, too, the lights are energy-efficient. As soon as the workers leave, I turn off all the lights.” |
| SDG 8—Decent work and economic growth | “We work individually, but as a team. Many times I go down to the winery to have the winemaker explain things to me that I don’t understand, so that I can then convey the ideas correctly to the tourists.”—“We, as a group, always encourage teamwork. All training actions have that focus.”—“Most of the workers live in Novelda and try to learn the sustainable processes they carry out in the winery to then be able to transmit them to tourists.”—“Only in the wine tourism activity we are three people working full time.” |
| SDG 9—Industry, innovation and infrastructure | “Since the winery was built, everything has been the same. Now that people want to be outside more, the barrel tables have been moved and, for example, that area that was almost never used (the barbecue) when the weather is good, we move the barrels there and people do the tasting outside. Changes have been made to the layout to make people more comfortable.” |
| SDG 11—Sustainable cities and communities | “I believe that everything Novelda has supports the wine tourism activities developed in our winery and we support all the cultural activities in Novelda. People who come to the winery ask us what is around, what they can see. In the same way, the fact that tourists do the routes of the modernist houses helps us to make them come to the winery for wine tourism. A little bit is helping each other.”—“In the Valencian Community, in general, and in the province of Alicante, in particular, I don’t think we have a depopulation problem as in Soria, Teruel, or many other Spanish regions. Wine tourism certainly helps to create real opportunities for young people in the villages and thus prevent them from leaving, but I don’t think this area has demographic challenges.”—“When we start the activity, we are already talking about the castle, about the old house of the Marquis de la Romana that is from 1707, that the floor is marble and that is from the period. The way the oil was made. How the workers of the time lived. On the spice side, we talk about |

(continued)

Table 2 (continued)

| SDG | Textual quotation |
|---|--|
| | Carmencita being the most important spice importing company in Spain.”—“When they are festivities here, special menus are made with the typical gastronomy of Novelda. The menu is called Xanxullo. When the grape harvest season comes, everyone is given a bunch of grapes bagged from Vinalopó.” |
| SDG 12—Responsible production and consumption | “We use the Monastrell grape variety for the reds and Moscatel for the whites. Then we have two Grenache grapes, which are single varietals that we use in a rosé and a red, but Grenache is also a 100% Spanish grape.”—“From the beginning of the explanation I emphasize that the vineyard of the winery has been organic for 8 years. I also talk about the bagged grapes from Vinalopó, which is appellation of origin and I say how the oil is made, because it is made from the olive trees on the estate.” |
| SDG 13—Climate action | “The provision of infrastructures that allow us to take buses is favorable”—“It is essential to preserve our wine-growing landscape.” |
| SDG 15—Life of terrestrial ecosystems | “Wine tourism allows us to show the biodiversity of the winery. Tourists are inside the environment, inside nature, and they value it very positively.” |
| SDG 17—Partnerships to achieve the goals | “The winery collaborates a lot with the tourist office of Novelda.”—“We have a project with the University of Valencia, to rescue an old type of grape. We also work with the Miguel Hernández University, because we have with them the Casa Sicilia chair.” |

Source: own elaboration

Wine tourism allows the members of Casa Sicilia to interact with each other, since those in charge of this activity must be in contact with other members of the winery (winemakers, quality and environmental managers, etc.) to be able to properly transmit to wine tourists the production process, the quality of the vintages, the certificates obtained and the awards received, among other aspects. In the same way, teamwork is encouraged in the winery and the workers are trained under the pillars of sustainability, so that they can subsequently transmit the organization’s awareness of environmental and territorial care. In addition, the development of wine tourism implies offering a new service to the market and, therefore, the generation of employment so that this activity can be carried out. In the case of Casa Sicilia, the wine tourism activity is capable of generating three jobs. Therefore, the development of wine tourism activities allows us to comply with SDG 8 regarding decent work and economic growth. The results are thus in accordance with Sigala’s (2020) research, as the case in focus reveals that wine tourism generates economic prosperity through the direct sale of wine from the winery and via the recruitment of new personnel in relation to the development of this type of tourism.

Casa Sicilia has not had to invest in the construction of new facilities to carry out its wine tourism products, being able to obtain productive synergies through the diversification of its sources of income derived from the facilities it already had. This makes it possible to meet SDG 9 related to industry, innovation and infrastructure. Likewise, wine tourism allows for synergies between other types of tourism, such as cultural or cultural tourism. In this sense, the winery promotes the typical gastronomy (such as Xanxullo) and the cultural activities of the municipality in which it is located (Novelda). This promotional association is bidirectional, with a mutually beneficial link between the winery and the other agents that surround it (ensuring compliance with SDG 11 related to sustainable cities and communities). The winery also seeks to enhance its ability to attract tourists through numerous collaborations with the Novelda tourist office (thereby fulfilling SDG 17 related to the generation of partnerships to achieve the goals). The findings of Frost et al. (2020), Martínez-Falcó et al. (2023b), and Sigala (2020) concur with the present results in their elucidation of wine tourism's capacity to capitalize on wine heritage, as well as to maintain the culinary and cultural heritage of wine-producing regions.

Casa Sicilia is committed to the use of native grape varieties of Alicante for the production of its wines (Monastrell grape for red wine and Moscatel for white wine), as well as with organic vineyards to ensure the quality and sustainability of the wines it produces. These actions are transmitted to wine tourists so that they can learn about the winery's commitment to using native grapes and organic vineyards for the production of its wines. This enables SDG 12 associated with responsible production and consumption to be met. Similarly, the winery's wine tourism managers stress the importance of preserving the vineyard landscape, as it is a fundamental element of identity to enhance the value of wine-growing areas (enabling SDG 13 related to climate action to be met). Wine tourism also allows the winery's biodiversity to be valued, since visitors have access to the vineyards and all the nature that surrounds it, leading to the fulfillment of SDG 15 associated with the life of terrestrial ecosystems.

The results therefore demonstrate that wine tourism is a critical factor for the sustainability of wineries. It can be used as a platform for communicating sustainable practices throughout the organization's value chain (viticulture, wine production, and distribution), and it can improve the economic, social, and environmental development of the winery. This association between sustainable practices and wine tourism activity is mutually beneficial. As sustainable practices are implemented, the amount of information communicated to wine tourists by the wine tourism manager increases. Additionally, as the number of visitors grows, wineries are incentivized to improve their processes and organic products, leading to the revitalization of the region and the preservation of the wine heritage. Ultimately, wine tourism can be seen as the foundation through which a winery's sustainable approach is communicated while also encouraging territorial development and protecting winemaking heritage (see Fig. 1).

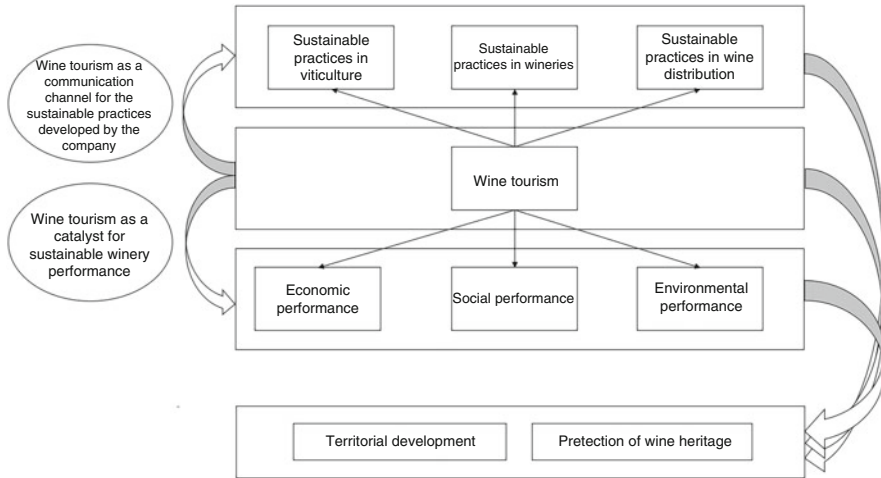


Fig. 1 Contribution of wine tourism to sustainable development. Source: own elaboration

5 Conclusions

This study demonstrates the existence of a positive association between the development of wine tourism activities and the achievement of the SDGs promoted by the United Nations. In particular, through the case study carried out, the results show that wine tourism catalyzes the achievement of SDGs 3, 5, 6, 7, 8, 9, 11, 12, 13, 15, 17, thus accepting the proposition formulated.

The research shows the backbone of wine tourism to improve the sustainability of wineries, since, on the one hand, it can be used as a channel to communicate the sustainable practices developed by the organization along its value chain (viticulture, wine production and distribution) and, on the other hand, it can improve the economic, social, and environmental development of the organization. This association between sustainable activities along the value chain and the wine tourism activity can be fed back over time, since the more practices are carried out, the richer and more extensive the communication of sustainable practices to wine tourists by wine tourism managers will be. Similarly, if the flow of visitors is increasing, wineries will tend to improve their processes and organic products. These benefits ultimately result in the revitalization of the territory and the preservation of the wine heritage. Wine tourism can therefore be conceived as the cornerstone through which the winery's sustainable approach is communicated while promoting territorial development and the protection of the winemaking heritage.

A number of theoretical and practical implications are derived from the study. First, as far as the theoretical implications are concerned, to the best of our knowledge, there are no previous studies that have analyzed the wine tourism-SDGs link in the Spanish wine context, so the research generates new knowledge in this field of

study. The research also represents a new way of understanding the benefits of wine tourism by using the SDGs as a framework for the development of the study. On the other hand, in terms of practical implications, the research can be useful both for winemakers who are considering the development of wine tourism activities, and for those who wish to commit to a sustainable approach in the development of their operations, since the study demonstrates the economic, social, and environmental importance of wine tourism, as well as its role in achieving the SDGs.

Despite the important contributions of the study, it should be noted that it also suffers from certain limitations. In particular, the use of the case study means that the results cannot be extrapolated to the population under study. Furthermore, the case study does not allow for the assessment of the causal relationship between wine tourism and the SDGs. Instead, this study serves as a preliminary exploration into the potential of this type of tourism to contribute to the fulfillment of the SDGs. In addition, by analyzing a single case (Casa Sicilia), the ability to make comparisons is limited. In order to overcome both shortcomings, as a future line of research we intend to carry out a quantitative analysis based on structural equation modeling to determine the economic, social, and environmental contribution of wine tourism activity, using a representative sample of Spanish wineries.

Annex 1

History and general information

- When was the winery founded?
- What do you consider to be the most important milestones of the winery?
- How many hectares of vineyards does the winery manage?

Wine tourism—Typology of wine tourists

- What do you consider are the elements that wine tourists value most in wine tourism (the vineyard, the winery, etc.)?
- How do they try to create an emotional bond with wine tourists?
- Are they usually wine enthusiasts or tourists with little knowledge of the subject? Which group would you say predominates?
- How do these types of tourists usually go (as a couple, with the family, etc.)? Do younger children have to pay for the activity?
- How do they discover the activity (website, recommendations, etc.)?

Environmental certifications

- What certifications does the winery hold to attest to its commitment to the environment (organic wine certificate, vegan, Wineries for Climate Protection)?

SDG 3—Health and wellness

- Is the winery a member of the Wine in Moderation Program? If so, is such membership communicated in the wine tourism activity?
- How is wine tourism helping to promote moderate and responsible consumption?

SDG 5—Gender equality

- What is the percentage of men and women in the winery?
- Do women occupy management positions?
- How are you promoting the participation of women in the wine sector thanks to wine tourism?
- How is wine tourism helping to increase women's participation in the wine sector?

SDG 6—Clean water and sanitation

- Does the winery implement any programs to make better use of water (reduce water footprint)? If so, are these actions communicated in wine tourism activities?
- How does wine tourism help to save water and improve water quality?

SDG 7—Affordable and clean energy

- Does the winery implement any programs to harness light and reduce materials? If so, are such actions communicated in wine tourism activities?
- How does wine tourism help to increase energy efficiency and increase renewable energy?

SDG 8—Decent work and economic growth

- How many workers does the winery have? How many are dedicated to wine tourism activities?
- Are future hires expected to carry out wine tourism activities?

SDG 9—Industry, innovation and infrastructure

- What innovations does the winery develop, does it invest in R&D&I activities, and do they communicate these actions in the wine tourism activity?
- How have the winery's R&D&I expenditures been reflected in the winery?
- To what extent have the facilities been designed in an eco-efficient way, do they have solar panels and do they take advantage of open spaces?

SDG 11—Sustainable cities and communities

- Is wine tourism helping to conserve the cultural heritage of unpopulated and little frequented areas near the winery?
- Is the history and heritage surrounding the winery explained during the wine tourism activity?

SDG 12—Responsible production and consumption

- Are the sustainable actions developed by the organization explained during the wine tourism activity?

- How is wine tourism favoring the responsible use of products for growing grapes and their subsequent sale?

SDG 13—Climate action

- How is the winery helping to fight climate change?
- How is wine tourism helping to fight climate change?

SDG 15—Life of terrestrial ecosystems

- How is the winery helping to conserve the ecosystem and desertification?
- How is wine tourism helping to conserve the ecosystem and desertification?
- Do you consider that wine tourism favors the preservation of biodiversity?
- Is there access to the vineyard to carry out the activity and explain the grape variety, its importance, etc.?

SDG 17—Alliances to achieve the objectives

- Is the winery a member of the Alicante wine route? If so, to what extent is the winery benefited by its membership?
- In which other associations is the winery present (business associations, etc.)?
- How does wine tourism encourage the building of alliances with local institutions and other wineries in the region?

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Sense or Sensibility? Managerial Sensemaking and Responsible Business Practices in International Small and Medium-Sized Enterprises



Maria Uzhegova , Maria Ivanova-Gongne , and Lasse Torkkeli 

Abstract International business today is increasingly stimulated to be conducted in a socially and environmentally responsible way. The United Nations' Sustainable Development Goals have emphasized the role of international business as an agent of transformation. Sustainability and related issues are global by nature; thus, they have a reach in international business and in providing international entrepreneurial opportunities. Despite this, research on international business and sustainable development has focused primarily on large multinational enterprises, while studies on international entrepreneurship (IE) have remained relatively absent. This study contributes to the literature on the internationalization of small and medium-sized enterprises (SMEs) by shedding light on how managers of international enterprises make sense of responsible business practices (RBPs). With an empirical sample of 179 Finnish internationalized SMEs and linear regression analysis, the study finds out that communication of sensemaking enhances the firms' RBPs. This study illustrates the role of the sensemaking approach in IE, where it is essential to account for managerial sensemaking when seeking to explain how international entrepreneurial firms strategize for sustainable international business and can potentially contribute to Sustainable Development Goals.

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1 Introduction

The United Nations' Sustainable Development Goals aim to guide solutions to pressing issues worldwide, leading to sustainable development in environmental, social, and economic terms. Contribution to responsibility belongs to all companies, regardless of their size (United Nations Global Compact, 2016), and nowadays, Sustainable Development Goals also serve companies of different sizes as goals, guiding their actions and transition toward more sustainable business, i.e., through the Sustainable Development Goal Compass tool (Sustainable Development Goal Compass, 2016).

Recent research has shown that not only large multinational companies but also small and medium-sized enterprises (SMEs) exhibit different levels of commitment to the Sustainable Development Goals, dictated by managers' ¹ personal attitudes toward them (Smith et al., 2022). At the same time, management scholars are encouraged to regard corporate social responsibility (CSR) communication as “*a forum for sensemaking and debate of opinions and expectations associated with organizational activity*” (Christensen et al., 2013: 387). Such notions suggest that the way owner-managers make sense of CSR and further communicate that sensemaking is very important for a shared understanding of the subject and may lead to a better understanding of responsible business practices (RBPs).² Sensemaking is about interpretation and acting on that sensemaking (Sandberg & Tsoukas, 2015), meaning that managers, especially those in top positions, need to derive meaningful interpretations of the complex and immense amount of information (Thomas et al., 1993) one has to deal with when dealing with sustainability. These interpretations, in turn, affect action alternatives and subsequent outcomes (Thomas et al., 1993), thus highlighting the importance of sensemaking in acting responsibly. Considering the stated relevance of sensemaking to managerial science in general, it is surprising that studies on international entrepreneurship (IE) have been slow to apply sensemaking to explain focal phenomena in these fields or consider sensemaking as an explanatory factor. This is a notable omission in the literature since, as Mainela, Puhakka, & Servais (Mainela et al., 2014: 108) note, “*International opportunities are seen to result from sense-making and enactment in a continually changing social situation.*” Since IE is “*the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services*” (Oviatt & McDougall, 2005, p. 7), the sensemaking approach provides a fitting lens through which to explain core IE phenomena.

¹Owner-managers, here referred to as owners and/or top managers of SMEs, depending on the structure of individual SMEs.

²With CSR usually being defined with a wide array of definitions, in this study we refer to RBPs, which we consider to be a part of CSR. We follow Ryan, O'Malley, & O'Dwyer (2010) in that RBPs is a more accurate term for SMEs, which accounts for different motivations for engagement with and methods of operationalizing business responsibility. In our view, RBPs are instrumental for SMEs to contribute to particular Sustainable Development Goals related to environmental and societal sustainability in the long run.

As Rasmussen et al. (2001) found, entrepreneurial internationalization, in particular, can be defined as sensemaking through enactment and networking. We concentrate specifically on these dynamics in SMEs since they provide a suitable context to illustrate managerial sensemaking (Bettiol et al., 2012; Ivanova & Torkkeli, 2013; Ivanova-Gongne et al., 2022a).

In particular, due to the small size, the owner-managers of SMEs are the core decision-makers, the face of the company and often, their sensemaking is reflected in the actions of a company (Ivanova-Gongne et al., 2022a). Through an empirical examination of a sample of 179 internationally operating SMEs originating from Finland, we find that communication of managerial sensemaking results in concrete action—greater possession of responsibility in such firms.

Conducting responsible business is increasingly relevant in international business (e.g., Kolk, 2016; Kolk et al., 2015; Kolk & van Tulder, 2010) and IE (Uzhegova et al., 2018) research domains. However, the extant research lacks an understanding of the interlink between sensemaking and responsible business, which is crucial given that sensemaking may affect companies' actions and interactions with business partners internationally (Ivanova-Gongne et al., 2022a). In this study, we explored the above-described issues that have been overlooked, despite being acknowledged as necessary. The present study contributes to IE by establishing sensemaking as a crucial antecedent for responsible business behavior in internationalizing SMEs and thus helping link together the streams of literature on responsibility in business and determinants of SME internationalization. The core research question is thus: *What is the effect of managerial sensemaking on fostering responsible business practices in international small and medium-sized enterprises?*

The study continues as follows: the next section discusses the theoretical background of sensemaking and business responsibility among the internationalizing SMEs. We then posit hypotheses, which we test using regression modeling. We then further discuss the implications of the results and conclude with suggestions on how this research could be supplemented further.

2 Theoretical Background and Hypotheses Development

2.1 Sensemaking

Sensemaking, defined broadly as the “*entire gamut of behavior surrounding collecting and organizing information for deeper understanding*” (Pirolli & Russell, 2011: p.1), has been widely used in organization studies, where researchers predominantly looked at understanding individual and collective decision-making, as well as processes of organizational change (Brown et al., 2015) and individuals' and organizations' engagement in CSR (Bataillard, 2022; Hübel, 2022). The classic definition of sensemaking outlined by Weick, Sutcliffe, & Obstfeld (Weick et al., 2005) is that it “*unfolds as a sequence in which people concerned with identity in the social context of other actors engage ongoing circumstances from which they extract*

cues and make plausible sense retrospectively while enacting more or less order into those ongoing circumstances.”

The core characteristics of sensemaking are that it is enactive of environments, retrospective, grounded in identity construction, and focused on and by extracted cues, driven by plausibility rather than accuracy (Helms Mills et al., 2010). Sensemaking is thus the core mechanism of how managers ascribe meaning to specific events and phenomena (Ivanova-Gongne & Törnroos, 2017; Ivanova-Gongne et al., 2022a, b). Sensemaking is linked closely with cognition, which is crucial to consider when examining IE phenomena (Zahra et al., 2005). Thus, we consider next the role of sensemaking and cognition in IE.

2.2 Sensemaking and Cognition in IE

Managerial cognition is increasingly pointed toward essential concepts for research in international business and entrepreneurship. However, international business studies on sensemaking have been limited (e.g., Kuznetsov & Kuznetsova, 2014; Maitland & Sammartino, 2015), despite the long-standing calls for more attention on the micro-foundations of international business (Coviello et al., 2017). Of the few extant studies, Clark and Geppert (2011) have linked sensemaking from a political perspective to subsidiary integration in the international management domain, while the study by Clark and Soulsby (2009) takes a sensemaking approach in examining how the management of multinational corporations can explain international joint venture processes. In addition, a recent article by Schlindwein and Geppert (2021) provides a theoretical model of emotional sensemaking in post-merger integration. For international business research, Welch et al. (2011) have identified interpretive sensemaking as one of the main approaches to which research in the field should be applied. Thereby, managerial sensemaking has particular potential for explaining international business processes and phenomena since it resides at the core of these processes.

In international business, “*despite the cognitive foundations of several key constructs, standard internationalization models do not explicitly incorporate managerial cognition*” (Maitland & Sammartino, 2015:1). They further argue that such cognitive processes are critical to assessing the micro-foundations of firm-level internationalization strategies and performance in particular. However, the international business literature has remained relatively silent on the role of cognition in managerial sensemaking, perhaps due to their often individual nature that has tended to be more strongly linked to international entrepreneurs. Managers interpret and make sense of ambiguous and complex signals that individuals impose on an information environment to give it form and meaning (Hahn et al., 2014, p. 464–465, citing Walsh, 1995). Indeed, entrepreneurship studies (e.g., Hill & Levenhagen, 1995) have pointed out for much longer that entrepreneurs must engage in sensemaking to understand the environment in which they conduct business. More recent studies in entrepreneurship have highlighted, for instance,

the role of language (Nicholson & Anderson, 2005; Ivanova-Gongne et al., 2021), socially constructed and collaborative sensemaking (Holt & Macpherson, 2010; Hoyte et al., 2019), and on how entrepreneurs make sense of failure (Cardon et al., 2011).

Research in IE has sought to bridge the two domains to explain how cognitive framing in the international domain is different (or similar): Zahra et al. (2005) proposed that IE research applies the cognitive perspective to explain entrepreneurial internationalization. Acedo and Jones (2007) then examined the impact of different types of cognition on the internationalization speed of enterprises, finding that a specific type of cognition (risk perception) can be a significant predictor of internationalization speed. A recent study (Vuorio et al., 2022) linked configurations of cognitive managerial capabilities to entrepreneurial internationalization. However, overall it is the case that, while linking closely to cognition in general, managerial sensemaking has received much less attention in IE research. This is despite the conclusion of Mainela et al. (2014) that the sensemaking approach should be incorporated more clearly into IE research and the research related to international opportunity recognition.

2.3 Sensemaking and Responsibility

Individual drivers for CSR may be instrumental, relational, moral, or rooted in the managers' sociodemographic and cultural characteristics, political orientations, or personality traits. With well-studied drivers, individual-level antecedents, including CSR sensemaking, have been widely omitted in previous studies (Gond et al., 2017).

In responsibility research, Basu and Palazzo (2008) suggest viewing business responsibility as a crucial element of organizational character. Their proposed process model of sensemaking for analyzing CSR includes cognitive, linguistic, and conative dimensions that collectively allow a holistic understanding of the firm's CSR attitude and behavior. Furthermore, the process model aims at understanding the causes of responsibility-related activities by exploring the mental frames and sensemaking processes within which they are embodied, thus arguing that sensemaking is a suitable lens for studying CSR.

Sensemaking is utilized as an analytical lens in several qualitative studies of CSR decision-making that explore cognitive processes in a large multinational—British American Tobacco (Richter & Arndt, 2018), leadership in a bank industry (Angus-Leppan et al., 2010), or shared value among social entrepreneurs (Osorio-Vega, 2019). In addition, the conceptual studies suggest using individual, organizational, and extra-organizational sensemaking factors to explore the relationships between CSR and employees' experienced meaningfulness through work (Aguinis & Glavas, 2019), or linking managers' cognitive frames to the choices made regarding the particular sustainability issues (Hahn et al., 2014).

A study by Fassin et al. (2011) investigates how the owner-managers differentiate between the various concepts related to business responsibility and confirms the

existing link between responsibility and decision-making using a sensemaking approach. The authors reinforce that sensemaking can “*shed new light on many aspects of how topics related to CSR and business ethics are perceived by small-business owner-managers*” (Fassin et al., 2011, p. 428).

2.4 SME Context

Studies have revealed that SMEs are generally uncomfortable with the use of the term “CSR” as applied to their actions, with some finding this term “grandiose,” “daunting,” or “confusing,” particularly with the word “corporate” not reflecting the nature of the small firms’ business (Jenkins, 2006; Sweeney, 2007). Indeed, SMEs’ way of addressing responsibility drastically differs from those adopted in large corporations and can be studied using a sensemaking approach (Ivanova-Gongne et al., 2022b). It tends to be driven by intrinsic motives and soft assets (Looser & Wehrmeyer, 2016), is tightly linked to the personality and principles of the owner-manager, has an emphasis on intuition, and thus is characterized by informal planning and prevailing ad hoc processes (Fisher et al., 2009).

SMEs’ international operations can be considered as entrepreneurial internationalization, defined as “*entrepreneurship that crosses national borders*” (Jones et al., 2011, p.635). Similarly, with regard to the lack of sensemaking research, in IE there are also just a few studies in the context of SMEs’ business responsibility (Aspelund & Rødland, 2017). In the globalizing world, the share of internationally operating SMEs is growing. There is a growing body of studies investigating the relationships between different aspects of international operations and responsible business. Studies suggest that firms’ export intensity has been found to positively impact green innovations (Galbreath, 2019), with a positive effect also prominent in SMEs where environmental programs contribute to the export intensity (Martín-Tapia et al., 2010). Research results on RBPs in international SMEs have found that effectual decision-making logic increases the possession of RBPs in international SMEs (Uzhegova & Torkkeli, 2023). Moreover, adopting these practices is tightly linked to firms’ organizational capabilities and personalities of management and thus does not vary much between partners from different national cultures (Uzhegova et al., 2018, 2019).

According to Weick (1995), sensemaking starts with scanning information sources, then proceeds through data interpretation to action. We thus apply sensemaking to the context of internationalized SMEs. This study analyzes whether managerial sensemaking results in concrete action—fostering the possession of environmental and social RBPs. Based on reviewing the literature above, we hypothesize the following (see Fig. 1):

H1: The higher the level of managerial sensemaking in an internationally operating SME, the higher the level of responsible business practices there.

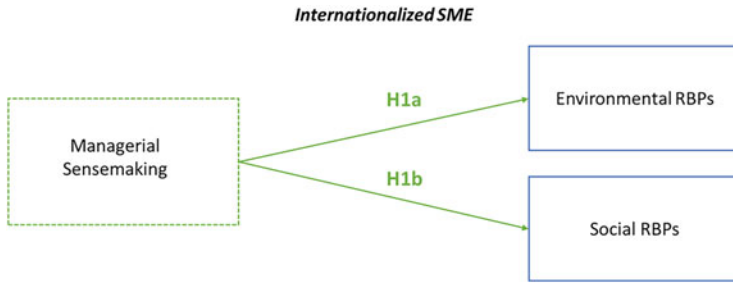


Fig. 1 Theoretical model

H1a The higher the level of managerial sensemaking in an internationally operating SME, the higher the level of environmentally responsible business practices there.

H1b The higher the level of managerial sensemaking in an internationally operating SME, the higher the level of socially responsible business practices there.

3 Methodology

3.1 Sample and Data Collection

To test the hypotheses, we acquired a sample of internationally operating SMEs through an online survey. The data was collected between November 2017 and February 2018. We chose Finland as the empirical context for the study due to the prevalence of SMEs that, due to the small domestic market, are often faced with the necessity to seek international growth. Moreover, Finland is an apt context for studying sensemaking (Ivanova-Gongne et al., 2022a; Ivanova-Gongne & Torkkeli, 2018) and business responsibility (Lähdesmäki & Suutari, 2012; Uzhegova et al., 2018, 2019) in an internationalized firm context.

We collected the empirical data in two phases: first, an initial sample of 1000 firms listed in the Bisnode Selector database (see www.bisnode.com) was drawn up. The list includes all exporting companies originating from Finland and provides a cross-sectional sample for drawing generalizations and controlling for specific industry sectors in the analysis. We then supplemented this list with a sample of firms from the engineering and software industries drawn from the Amadeus online database. In both phases, we delimited the sample to SMEs specifically, adhering to the European Commission's definition of SMEs as companies employing fewer than 250 people, with turnover of below 50 million euros, or with a balance sheet total below 43 million euros (see European Commission, 2020). The last search yielded 1029 firms to be contacted in total.

The survey itself was administered online through the Qualtrics service. The items in the survey were translated first from English to Finnish and then back-translated with the help of a professional language editor. The initial contact with the

sample firms was handled by four research assistants with backgrounds in business studies. They initially contacted the firms via phone to ascertain that the firm and the potential respondent fit the criteria for the study (the most knowledgeable people in independent internationally operating SMEs). We sent the online questionnaire link to the firms that fit the criteria and that agreed to participate. We followed that email with reminders at 2-week intervals to those firms who had agreed to participate but had not responded initially. To ensure there were no biases between early and late respondents, we then conducted T-tests between the key variables in the study to ensure the representativeness of the data over time.

Through this process, we reached 1821 SMEs in total. Out of this number, 1387 of these were found valid, and 1032 of those agreed to participate in the study. When the data collection concluded, we had received a total of 365 responses (26% total response rate), indicating a sufficient response rate for an empirical entrepreneurship study (Rutherford et al., 2017) that can be considered typical in this field (cf. Newby et al., 2003). The final effective sample used to test the hypotheses included 179 firms in total, with an average age of 29 years and an average employee headcount of 51, the average time internationalization started after firm foundation being 11 years, and operating mainly (99% of turnover) in business-to-business markets (see Appendix 2). Thus, the sample was considered representative of internationalizing Finnish SMEs (see Kuivalainen et al., 2015).

3.2 *Measures*

We use a seven-point Likert scale (1 = “strongly disagree” to 7 = “strongly agree”) to measure the key variables. Before the analysis, we conducted a principal component factor analysis using varimax rotation. The variables’ items and their phrasing are presented in Appendix 1.

The convergent validity regarding the values of the average variance extracted (AVE) was confirmed, with all of the variables with values greater than the minimum of 0.5 proposed by Fornell and Larcker (1981) (see Appendix 1). Internal consistency reliability was evaluated using Cronbach’s α , with all variables having values higher than the minimum 0.7 established by Nunnally (1978). Multicollinearity was not confirmed after assessing the correlation coefficients and variance inflation factors (not tabulated, but all below 10, as suggested by Hill and Adkins (2007)).

Finally, because the key variables in our models were based on Likert-scale items, we took measures to mitigate the threat of common method bias. In doing so, we sought to adhere to Podsakoff et al. (2012) and Chang et al. (2010). Namely, we included negatively worded items in the questionnaire and placed the different constructs across the extensive questionnaire (cf. Chang et al., 2010). We also conducted Harman’s single-factor test, which, although criticized by Chang et al. (2010), was a useful supplementary measure to help mitigate concerns for common method bias. The results indicated that no single factor underlying the data could have impacted the analysis.

3.2.1 Sensemaking

To our knowledge, no extant scale could be adapted since the research on the topic is overwhelmingly conceptual and qualitative (e.g., Ivanova-Gongne et al., 2022a). Therefore, for the sensemaking measure, we developed our items from extant research for the sensemaking measure. In doing so, we applied the following logic: sensemaking in an international environment often involves individuals using cultural schemas to make sense of a particular event. Cultural schemas are thus “*cognitive structures that constitute knowledge and serve as resources for ascribing meaning and assist individuals in making sense of various situations*” (Ivanova-Gongne, 2015: p. 610). Such knowledge may include norms and understanding of responsible business in a certain country or organization.

In addition, individuals obtain new cultural schemas through being exposed to or interacting with individuals from other cultures, including national, organizational, or other types of culture. However, the schemas ingrained in an individual’s background may also be a barrier to accepting the behavior of a partner organization and thus block the organization from adapting to the partner’s cultural schemas and ways of operating. Thereby, rightful communication of sensemaking is crucial for an organization to understand the partner’s ways of doing business, e.g., responsible conduct, and possibly to ingrain the new understanding in their organizational practices. Therefore, we adhered to a two-dimensional structure for a sensemaking scale, consisting of *cultural* sensemaking and *communication of* sensemaking.

As a result of the factor analysis, the two factors with the following items were obtained: (1) communication of sensemaking—SENS_COM (consisting of the items SENS_1-SENS_4) and (2) cultural sensemaking—SENS_CULT (consisting of the items SENS_6- SENS_9). We dropped item SENS_5 because of its low communality (0.383).

3.2.2 Responsible Business Practices

According to the discussion in the theoretical part, RBPs are seen as a complex of practices aimed at different groups of involved parties closely related to the SME’s operations. Thus, we adopt a measure for RBPs from Martínez-Martínez et al. (2017). This multidimensional construct covers different aspects and groups involved in SMEs operations and can be neatly divided into environmental RBPs (natural environment) and social RBPs (employees, local community, and customers). After conducting the factor analysis, we manually matched the measured RBPs with the Sustainable Development Goals that were deemed relevant for the SMEs in our sample as follows:

- Sustainable Development Goals 6, 7, 13, 14, and 15: environmental practices with nine items that in our study load on two factors: one related to operational environmental practices ENVPR_OP (ENVPR_1 - ENVPR_3, ENVPR_5) and

another aimed at long-term commitment ENVPR_LONG (ENVPR_4, ENVPR_6 - ENVPR_9)

- Sustainable Development Goals 5 and 8: employee-related (EMPLPR)
- Sustainable Development Goals 10 and 11: local community-related (LCOMMPR) and
- Sustainable Development Goal 12: customer-related (CUSTPR) practices

The latter three each yield a one-factor solution and comprise six, five, and four items, respectively. The item wording, total variance captured, and factor loadings are presented in Appendix 1.

3.2.3 Control Variables

We controlled for firm age and size. These two variables are common control variables in IE and responsibility research. First, the older SMEs are known to have a negative effect on the extent of SMEs' international activities (Love et al., 2016), while larger SMEs are most frequently present at foreign locations in a direct way and with foreign R&D (Hollenstein, 2005). In the second, the older companies, for instance, tend to adopt environmental practices to a larger extent (Hofmann et al., 2012), while the greater firm size overall positively affects the readiness of the firm to adopt responsibility (Baumann-Pauly et al., 2013; Russo & Tencati, 2009). We measured *firm size* by the number of employees and *firm age* by the number of years since the founding date (Lu & Beamish, 2006).

4 Results

4.1 Descriptive Statistics

We first present the means, standard deviations, and zero-order correlations of studied variables (see Table 1). The significant correlations among them provided initial insight into the study hypothesis. The mean age of the firms in our sample is 29 years, and their size in terms of employees is relatively small, with a mean of 51.

4.2 Hypotheses Testing

We conduct a series of linear regression analyses to test the proposed theoretical model (Fig. 1). The first step tests the relationship between control variables and all responsible business practices.

The results of controls-only Models 1a–1e (see Table 2) suggest that firm size positively impacts the practices related to operational environmental practices,

Table 1 Descriptive statistics and correlations of key variables

| Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|-------|-------|--------|-------|--------|--------|--------|--------|-------|--------|---|
| 1 SENS_COM | 5.21 | .99 | 1 | | | | | | | | |
| 2 SENS_CULT | 3.50 | 1.18 | .196** | 1 | | | | | | | |
| 3 ENVPR_LONG | 5.26 | 1.12 | .303** | .007 | 1 | | | | | | |
| 4 ENVPR_OP | 3.89 | 1.46 | .220** | .145* | .505** | 1 | | | | | |
| 5 EMPLPR | 5.54 | 1.02 | .501** | .081 | .423** | .244** | 1 | | | | |
| 6 LCOMMPR | 4.22 | 1.34 | .251** | .148* | .402** | .425** | .384** | 1 | | | |
| 7 CUSTPR | 6.23 | .80 | .450** | .083 | .501** | .213** | .563** | .280** | 1 | | |
| 8 Firm age | 29.22 | 19.96 | -.012 | .083 | .111 | .180* | -.123 | .112 | .001 | 1 | |
| 9 Firm size | 51.00 | 46.97 | .125 | .046 | .170* | .301** | .109 | .289** | -.014 | .281** | 1 |

* $p < 0.05$, ** $p < 0.01$

Table 2 Models 1a–1e: RBPs regress on control variables (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)

| | Model 1a ENVPR_LONG | | Model 1b ENVPR_OP | | Model 1c EMPLPR | | Model 1d LCOMMPR | | Model 1e CUSTPR | |
|-------------------|------------------------|-----------------|----------------------|-----------------|--------------------|-----------------|---------------------|-----------------|--------------------|-----------------|
| | β | <i>t</i> -value | β | <i>t</i> -value | β | <i>t</i> -value | β | <i>t</i> -value | β | <i>t</i> -value |
| Control variables | | | | | | | | | | |
| Firm age | .075 | 1.003 | .113 | 1567 | — | — | .043 | .591 | .019 | .255 |
| Firm size | .145 | 1.950 | .265 | 3.684*** | .148 | 2.000* | .272 | 3.774*** | — | — |
| | | | | | | | | | .024 | .317 |
| Model estimation | | | | | | | | | | |
| R^2 | .033 | | .099 | | .036 | | .082 | | .001 | |
| Adj. R^2 | .022 | | .090 | | .026 | | .073 | | —0.10 | |
| <i>F</i> | 3.198* | | 10.430*** | | 3.543* | | 8.574*** | | .067 | |

employee-related practices, and those related to the local community. Firm age, in turn, has a negative impact on employee-related practices. We then added the sensemaking variables and tested the relationships between them, control variables, and RBPs (Models 2a–2e in Table 3).

The results of the second-step models indicate that only communication of sensemaking but not cultural sensemaking has a direct positive effect on all RBPs types. The adjusted R^2 has increased by an average of 0.132 from the controls-only models 1a–1e to the full models 2a–2e, with a minimum increase of 0.057 for operational environmental RBPs and local community RBPs and a maximum of 0.237 for customer RBPs where the negative adjusted R^2 turned into a positive one. This change demonstrates the effect of the key variable (sensemaking) on the dependent variable (RBP) and differentiates it from the effect of control variables. Based on the results of analyses, Hypotheses 1a and 1b are confirmed partially as only communication of sensemaking but not cultural sensemaking positively affects all the RBPs.

The resulting framework is presented in Fig. 2.

5 Discussion and Conclusion

Since a manager's *cultural sensemaking* is predominantly based on the company's culture or initial prejudices about the partner's culture, the sensemaking process may be largely based on automatic cognition, which deals with unintentional thought. Thus, owner-managers as individuals may apply more familiar cultural schemas, which are deeply ingrained in their cognition and are part of the company's routine (Ivanova-Gongne, 2015; Ivanova-Gongne et al., 2022a). Consequently, SMEs' RBPs may not be accentuated as necessary. On the other hand, *communication of sensemaking* involves deliberate cognition, which concerns a "*reflective thinking*

Table 3 Models 2a-2e: RBPs regress on sensemaking and control variables (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)

| | Model 2a | | Model 2b | | Model 2c | | Model 2d | | Model 2e | |
|-----------------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|----------------|------------------|-----------------|
| | ENVPR_LONG | t-value | ENVPR_OP | t-value | EMPLPR | t-value | LCOMMPR | t-value | CUSTPR | t-value |
| | β | | β | | β | | β | | β | |
| Independent variables | | | | | | | | | | |
| SENS_COM | .318 | 4.484*** | .225 | 3.248*** | .483 | 7.434*** | .209 | 2.989** | .499 | 7.560*** |
| SENS_CULT | -.073 | -1.034 | .076 | 1.109 | -.021 | -.324 | .103 | 1.490 | -.012 | -1.179 |
| Control variables | | | | | | | | | | |
| Firm age | .111 | 1.538 | .128 | 1.804 | -.131 | -1.995* | .057 | .802 | .059 | .888 |
| Firm size | .098 | 1.354 | .233 | 3.278*** | .093 | 1.398 | .244 | 3.423** | -.089 | -1.333 |
| Model estimation | | | | | | | | | | |
| R^2 | .130 | | .165 | | .263 | | .148 | | .243 | |
| Adj. R^2 | .110 | | .147 | | .247 | | .130 | | .227 | |
| F | 6.807*** | | 9.026*** | | 16.510*** | | 8.045*** | | 14.784*** | |

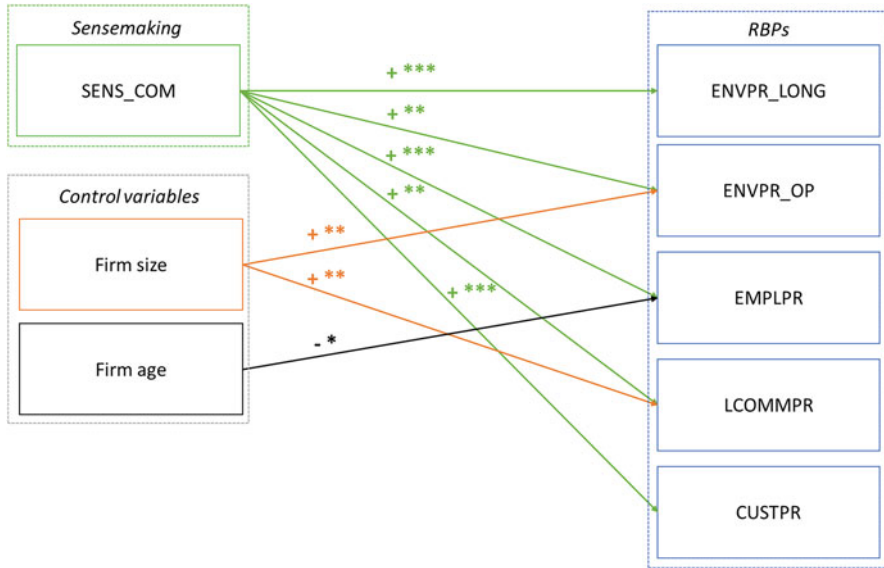


Fig. 2 The results of linear regression modeling (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)

process and can cause disruption in the existing cultural repertoire of schemas and incorporation of new cultural schemas” (Ivanova-Gongne, 2015: p. 611). Therefore, as found in this study, communication of sensemaking deals with thinking about addressing stakeholders’ needs and thus SMEs’ practices may be changed or implemented anew. Consequently, the new or changed RBPs may be given more weight in the company’s understanding due to the disruption of routines. In general, communication of sensemaking may contribute to SME’s RBPs since it deals with trying to understand and communicate internal actions, thereby providing opportunities for improving and innovating the company’s business.

Among the control variables, the firm’s size has shown a positive effect only on operational environmental RBPs and local community RBPs, as opposed to the overall trend toward greater adoption of responsibility among larger companies, as identified by Baumann-Pauly et al. (2013). The only influence on a firm’s age is a decrease in employee-related RBPs, which is somewhat surprising. The explanation for that may be rooted in the lack of flexibility or the specificities of the industry that might be less dynamic and, thus, require less of employees’ knowledge updates or provide the possibility for flexible working hours.

5.1 Theoretical and Practical Implications

This study aimed to examine the role of managerial sensemaking in responsible business practices in international SMEs. The findings contribute to the literature on

international entrepreneurship from the sensemaking and sustainability perspectives by emphasizing the critical role that sensemaking has on RBPs in international entrepreneurship. In doing so, this study responds to calls by Andersen & Kragh (2011) to apply interpretive sensemaking in a study of international business. In general, the micro-foundations of international business have been an underrepresented focus in the international business domain of research, which research on sensemaking can help rectify (Kuznetsov & Kuznetsova, 2014; Maitland & Sammartino, 2015; Coviello et al., 2017).

More specifically, the present study contributes to the notions (e.g., Mainela et al., 2014) that, despite the relative lack of literature applying the sensemaking perspective in IE, international entrepreneurial opportunities—and thus the IE field as a whole—derive from sensemaking across changing social situations. Our findings demonstrate that sensemaking is a significant predictor of the development of RBPs in internationally entrepreneurial firms, which are some of the first empirical confirmations of that sensemaking function. The findings extend the notions discussed by Mainela et al. (2014) by suggesting that not only sensemaking in itself but a specific type of sensemaking is needed for these purposes. The finding that sensemaking communication is linked to the development of specific types of responsible business practices in IE further indicates that the sensemaking approach is relevant and applicable when studying phenomena related to sustainability in IE and the internationalization process. In doing so, it also adds to the literature on the role of sensemaking in sustainable business (Angus-Leppan et al., 2010; Hahn et al., 2014; Podgorodnichenko et al., 2021) to the domain of SME internationalization. Finally, the present study extends and complements one of the fewer older studies (Rasmussen et al., 2001), which suggested that sensemaking in internationalizing enterprises was intertwined with their networking.

Our study focused on SMEs because, in such firms, managerial sensemaking plays a crucial role (Bettiol et al., 2012; Schlierer et al., 2012; Ivanova & Torkkeli, 2013; Harries et al., 2018; Ivanova-Gongne et al., 2022a). Since the extant literature points toward sensemaking being of particular importance in both SME and international entrepreneurship contexts, and since there is a lack of research that would incorporate both jointly, in our study, we have chosen the empirical context of internationalized SMEs, i.e. SMEs engaged in international entrepreneurship. The study thus contributes by adding to the scant literature on sensemaking in IE and by including the conceptual basis of responsible business practices in the literature on the role of sensemaking in SMEs.

With the share of internationally operating SMEs growing, academic research aims to investigate the relationships between different aspects of international operations and responsible business (Martín-Tapia et al., 2010; Uzhegova et al., 2018, 2019). This study adds to the previous studies on sensemaking (Mainela et al., 2014; Rasmussen et al., 2001) and decision-making (Ahi et al., 2017; Sarasvathy et al., 2014; Uzhegova & Torkkeli, 2023) in IE. Notably, the results of our study provide empirical evidence for the role of sensemaking within the context of internationalized SMEs, emphasizing the role that the extent of a specific type of sensemaking related to communication can have on performance for companies

operating in the international and global arenas. Moreover, to our knowledge, this is the first quantitative study on sensemaking in IE, with earlier ones (e.g., Rasmussen et al., 2001; Zahra et al., 2005) having been conceptual or qualitative in nature.

The findings of our study extend theirs by illustrating how sensemaking in such firms is also intertwined with their business practices from the responsibility perspective. Sensemaking may serve as an analytical tool in the research of responsible business (Osorio-Vega, 2019; Richter & Arndt, 2018) and as an antecedent to the increased responsible business practices toward different parties involved in SMEs' operations. This study helps problematize (cf. Alvesson & Sandberg, 2011) the assumptions in the extant literature that responsibility studies conducted on large multinationals would be generalizable to IE. Instead, based on the findings, our study argues that IE literature can benefit from applying the sensemaking view, as doing so may lead to a more holistic understanding of RBPs in internationally entrepreneurial firms.

For managers of internationally operating SMEs, our results imply that they should be aware of individual sensemaking patterns that, if used consciously along with decision-making, may stimulate the re-engagement with responsibility in terms of critical stakeholders. Through broader engagement of international SMEs in responsible business conduct, a substantial contribution to the particular Sustainable Development Goals and sustainable development, in general, may be achieved.

5.2 *Limitations and Future Research*

This study has some limitations. First, since our empirical focus was on establishing causalities through a quantitative approach, we acknowledge that the results do not explain specifically *how* sensemaking as an antecedent impacts recognition and seizing of international opportunities, merely that the evidence suggests there is a causal relationship implying that it does. How the mechanism of sensemaking leading to more responsible business practices in international markets operates in more detail (for instance, which organizational processes or managerial learning processes are required and how they function) are important topics for future studies to assess. The process approach is generally fruitful in IE (e.g., Coviello & Jones, 2004) and sensemaking (Weick et al., 2005), and thus studies examining the development of sensemaking and internationalization processes longitudinally, most likely through qualitative research methodology, would be welcome. Responsible business practices can be understood as organizational practices or routines, and therefore their emergence could be linked longitudinally to sensemaking and internationalization through a process study approach. The present study provides foundational evidence for the relevance of studying sensemaking and responsible business practices in internationalizing firms. Further research is needed to provide a full picture of these dynamics longitudinally.

Empirically, we only included one type of performance in the hypotheses testing. It would be beneficial to link these findings to a broader range of organizational

outcomes, such as financial and non-financial gains and losses and the outcomes of different aspects of international performance. Doing so would help further in establishing the generalizability of the results across different types of success in international markets; Mainela et al. (2014) posited that the role of sensemaking could be critical in future studies on international opportunity recognition, and we acknowledge that the outcomes of such recognition—and the subsequent seizing of international opportunities by enterprises—can be measured in several ways. Thus, future studies could also test for a direct relationship between the sensemaking scale and international opportunity recognition, following the recent suggestions for opportunity recognition measurement by Kuckertz et al. (2017).

Another inherent limitation of this study is the use of cross-sectional data to investigate cause-and-effect relationships, and another limiting the geographical scope to only one country—Finland. Longitudinal data should be used to confirm causality in future studies to better capture the dynamics of the interplay between sensemaking and RBPs. Furthermore, we suggest that including the Sustainable Development Goals not covered in this study (i.e., 1, 2, 3, 4, 9, and 17) and the related targets is crucial for more comprehensive insights into this interplay. Thus, these limitations present an opportunity for future research on internationalized SMEs.

In addition, our sample has not differentiated between the timing and speed of internationalization. Thus, following sensemaking and RBPs longitudinally along the internationalization process may provide insights into the involvement of different stakeholders along the stages of internationalization.

Appendix 1

Sensemaking

Based on your opinion, please indicate the degree to which you agree or disagree with each of the following statements related to your managerial sensemaking (1 = disagree completely, 7 = agree completely)

| Sensemaking (SENS) | | | |
|--------------------|--|-----------------|---------------|
| AVE = 0.659 | | | |
| CR = 0.939 | | | |
| Item | Item's phrasing | Factor loadings | Communalities |
| SENS_1 | We have an organized internal recap of the meetings with our partners | .757 | .573 |
| SENS_2 | We aim to reach a shared understanding and consensus concerning the partner's actions before acting upon our decisions | .814 | .670 |
| SENS_3 | | .796 | .657 |

(continued)

| Sensemaking (SENS) | | | |
|--------------------|---|---------|------|
| | We draft an action plan for the next meeting based on our internal interpretation of partner’s actions | | |
| SENS_4 | We regularly communicate within our company about our understandings of the partner’s actions | .835 | .704 |
| SENS_5 | Our partner communicates to us their understanding or misunderstanding of our actions | Dropped | |
| SENS_6 | Our initial interpretations of the partner’s actions are/may be guided by cultural prejudices | .843 | .721 |
| SENS_7 | Our understanding of the partner’s actions is guided by the social situation/preconditions in the partner’s country | .832 | .738 |
| SENS_8 | Our understanding of the partner’s actions is guided by emotions | .836 | .700 |
| SENS_9 | Our understanding of the partner’s actions is guided by the norms and beliefs established in our organization | .778 | .607 |
| | Cumulative variance | 67.110 | |
| | Cronbach alpha | .790 | |
| | Kaiser–Meyer–Olkin Measure of Sampling Adequacy | .803 | |

Environmental RBPs

Indicate your level of agreement with the following statements about environmental practices (1 = completely disagree, 7 = completely agree) My company:

| Environmental RBPs (ENVPR) | | | |
|----------------------------|--|-----------------|---------------|
| AVE = 0.591 | | | |
| CR = 0.928 | | | |
| Item | Item’s phrasing | Factor loadings | Communalities |
| ENVPR_1 | Minimizes the environmental impact of its activities | .796 | .660 |
| ENVPR_2 | Designs products and packaging that can be reused, repaired, or recycled | .821 | .716 |
| ENVPR_3 | Voluntarily exceeds legal environmental regulations | .754 | .615 |
| ENVPR_4 | Regularly conducts environmental audits | .728 | .597 |
| ENVPR_5 | Reuses and recycles materials | .708 | .571 |
| ENVPR_6 | Adopts measures for ecological design in products/ services | .732 | .591 |
| ENVPR_7 | Implements programs to use alternative energy | .849 | .757 |
| ENVPR_8 | Implements programs to reduce water consumption | .843 | .731 |
| ENVPR_9 | Makes investments to save energy | .671 | .502 |
| | Cumulative variance | 63.790 | |
| | Cronbach alpha | .864 | |

(continued)

| Environmental RBPs (ENVPR) | | |
|----------------------------|---|------|
| | Kaiser–Meyer–Olkin Measure of Sampling Adequacy | .840 |

Employees-Related RBPs

Indicate your level of agreement with the following statements about practices related to employees (1 = completely disagree, 7 = completely agree) (In) my company:

| Employees-related RBPs (EMPLPR) | | | |
|---------------------------------|---|-----------------|---------------|
| AVE = 0.679 | | | |
| CR = 0.927 | | | |
| Item | Item's phrasing | Factor loadings | Communalities |
| EMPLPR_1 | Employees' interests are taken into account in company decision-making | .845 | .713 |
| EMPLPR_2 | Support employees who wish to continue or upgrade their education/training | .890 | .793 |
| EMPLPR_3 | Help the employees find suitable work/life balance (flexible working hours) | .794 | .630 |
| EMPLPR_4 | Recognizes the importance of stable employment for your employees and society (in the local area) | .848 | .720 |
| EMPLPR_5 | Develop/Implement regular training programs | .773 | .597 |
| EMPLPR_6 | Assess employees work/labor environment on a regular basis | .791 | .626 |
| | Cumulative variance | 67.978 | |
| | Cronbach alpha | .900 | |
| | Kaiser–Meyer–Olkin Measure of Sampling Adequacy | .885 | |

Local Community RBPs

Indicate your level of agreement with the following statements about practices related to local community (1 = completely disagree, 7 = completely agree). My company:

| Local community RBPs (LCOMMPR) | |
|--------------------------------|--|
| AVE = 0.633 | |
| CR = 0.896 | |

(continued)

| Local community RBPs (LCOMMPR) | | | |
|--------------------------------|--|-----------------|---------------|
| Item | Item's phrasing | Factor loadings | Communalities |
| LCOMMPR_1 | Incorporates/includes local community interests in company decision-making | .778 | .606 |
| LCOMMPR_2 | Support sports or cultural activities in the local community | .796 | .634 |
| LCOMMPR_3 | Maintain clear relations with local government authorities | .777 | .604 |
| LCOMMPR_4 | Considers itself to be part of the local community and therefore cares about its development/local impact or the improvement of the local infrastructure | .869 | .754 |
| LCOMMPR_5 | Support programs for the disadvantaged | .755 | .570 |
| | Cumulative variance | 63,378 | |
| | Cronbach alpha | .854 | |
| | Kaiser–Meyer–Olkin Measure of Sampling Adequacy | .816 | |

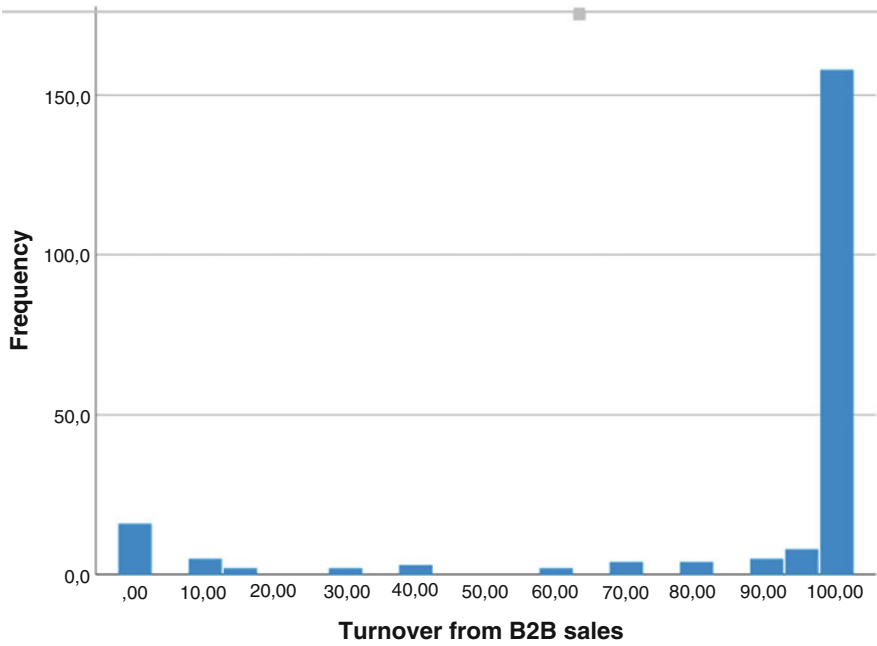
Customers-Related RBPs

Indicate your level of agreement with the following statements about practices related to customers (1 = completely disagree, 7 = completely agree). My company:

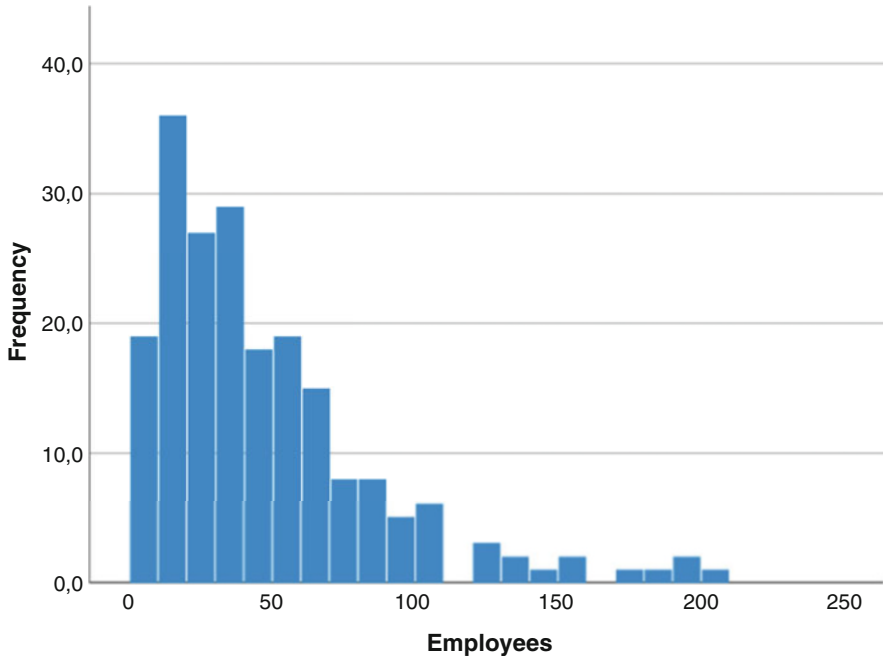
| Customers-related RBPs (CUSTPR) | | | |
|---------------------------------|---|-----------------|---------------|
| AVE = 0.738 | | | |
| CR = 0.918 | | | |
| Item | Item's phrasing | Factor loadings | Communalities |
| CUSTPR_1 | Meets its commitments with quality and fair price | .849 | .721 |
| CUSTPR_2 | Inform customers about the proper use of their products and warnings of potential risks | .786 | .618 |
| CUSTPR_3 | Take measures to prevent customer complaints | .928 | .861 |
| CUSTPR_4 | Respond to customer complaints or inquiries | .868 | .754 |
| | Cumulative variance | 73.855 | |
| | Cronbach alpha | .870 | |
| | Kaiser–Meyer–Olkin Measure of Sampling Adequacy | .793 | |

Appendix 2

A share of B2B sales in company's operations in % from the overall turnover (X axis), number of SMEs (Y axis)



Number of employees in the sample SMEs (X axis), in number of individual SMEs (Y axis)



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Part III
Social Sustainability

Business Ethics and Corporate Social Responsibility: Translating Theory into Action



Anastasia Sofia Alexiadou 

Abstract Ethics in business embodying fairness, justice, and human rights principles has the potential to unlock, reveal, and address the unethical, unfair, and obscure business practices that constitute barriers to the development of sustainable societies and economies. Hence, corporate social responsibility, following the significant value of business ethics, constitutes a critical determinant of promoting the key ethical features of a company's culture, such as transparency, diversity, inclusion, and equality; governance; volunteerism; and philanthropy in the market. Through this lens, this chapter seeks to articulate the crucial role of ethics in framing responsible business conduct that is translated into action through corporate social responsibility schemes. To this end, the chapter elaborates on the concept of ethics and its key components, as well as on the two predominant ethical theories facilitating the deployment of corporate social responsibility within the framework of business ethics. Looking ahead, as a way of effectively addressing unethical and unjust corporate practices, this chapter concedes that ethics can serve as a stepping stone for voluntary initiatives for corporate self-regulation, primarily involving corporate social responsibility.

1 Introduction

Even though over time an international consensus among scholars from various disciplines, such as economy, politics, philosophy, law, and sociology, has formed around concerns about the social, economic, and environmental impacts of international corporations, only in recent years a number of corporate initiatives for a responsible corporate conduct for sustainable economic growth emerged as a response to pressing global issues such as climate and health crises. It is asserted that the concept of sustainable development is closely related to contemporary threats to human life tightly bound with the rise of global consumption, increasing

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environmental degradation, rapid population growth, unsatisfied human needs, and destabilization of natural and socioeconomic systems (Goodpaster, 2012; Kolk & Van Tulder, 2010; Placiak & Mukaretsi, 2020). In this regard, the United Nations' (UN) General Assembly in the 2030 Agenda for Sustainable Development (the 2030 Agenda) acknowledged, in its preamble, that "this Agenda is a plan of action for people, planet and prosperity" (United Nations [UN] General Assembly, 2015, p. 1). In fact, the 17 Sustainable Development Goals, addressed in the 2030 Agenda, "...are integrated and indivisible and balance the three dimensions of sustainable development, namely the economic, social and environmental" (UN General Assembly, 2015, p. 1). Particularly, under Goal 17 ("Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development") the UN stipulated that productivity, inclusive economic growth, and job creation can be achieved through (1) private business activity; (2) investment; and (3) innovation. Within this context, the international community urges all businesses "ranging from micro-enterprises to cooperatives to multinationals" to employ their creativity and innovation in order to address sustainable development challenges (UN General Assembly, 2015, p. 29).

Given this reality it is asserted that "an enterprise culture" reconciling business economic orientation with its social orientation, involving business ethics, corporate social responsibility, inclusive economic growth, and sustainable development, is required to counteract or at least significantly mitigate the adverse business-related impacts (intended or unintended) on the well-being of societies while promoting moral thinking and acting on behalf of managers as well as of employees. To this aim, a threefold responsibility could be identified (as will be further discussed in Sect. 3), which encompasses the following: (1) The individual responsibility (micro-level) both of the managers and of the employees where the focus lies on actions and conduct determined by reference to core values, such as humanity, fairness, justice, and beneficence, which must be taken into account when reflecting on one's behavior toward others. (2) The organizational/corporate responsibility (mid-level) involving corporate obligations to which businesses must adhere whenever pursuing their economic objectives. (3) The societal responsibility (macro level) which relates to the pattern of cultural, political, and economic features that urge individuals and businesses to act (Adda et al., 2016; Carroll, 1991; Goodpaster, 2012; Norman, 2013).

Against this backdrop, this chapter sets out to address the interface between business ethics and corporate social responsibility. Arguably, as will be further discussed in later sections, a focus on corporate responsibility through an ethical and societal perspective can have significant repercussions to business operations as well as to the well-being of societies. Hence, in addition to this brief Introduction, the chapter is divided into four main sections. Section 2 embarks on examining the contours of ethics, namely the origin and terminology of ethics and its key components (Sect. 2.1), by paying attention to the two most predominant ethical theories toward bridging the potential gap between ethics and business management while paving the way for the deployment of a genuine and sustainable corporate social responsibility (Sects. 2.1.1 and 2.1.2). Subsequently, in Sect. 3 the value of ethics in

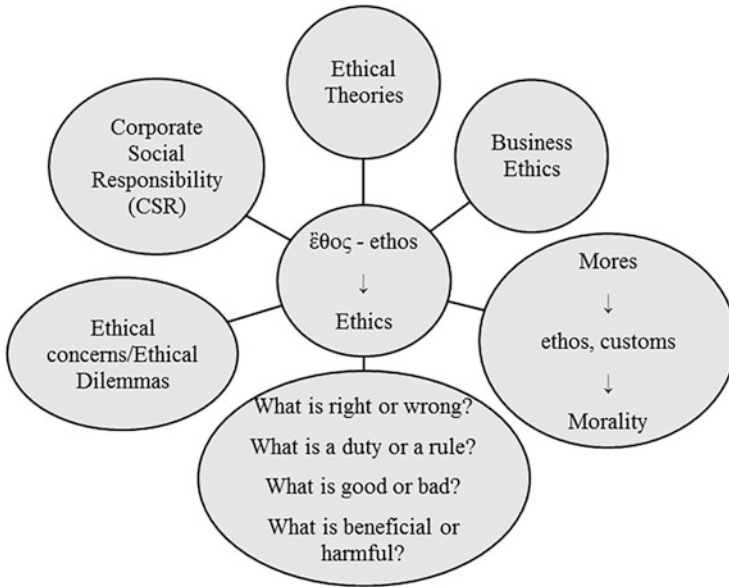


Fig. 1 The contours of ethics (source: the Author)

business practices and policies, namely the scope of business ethics, is briefly addressed. Following the significant value of business ethics, Sect. 4 conceptualizes the scope of corporate social responsibility toward identifying the practical parameters for a responsible business conduct to the benefit of society. Finally, Sect. 5 sums up the main findings of the chapter and offers some concluding thoughts. The overall aim of this chapter is to inform business scholars, management strategic analysts, civil society, and other stakeholders about the critical role of ethics in forming business management and corporate responsibility.

2 The Contours of Ethics

2.1 Definition of Ethics

Ethics (see Fig. 1) pertains to ethical conduct in human relations as well as delineates people’s concerns about what is right or wrong, what is a human right or a duty, and what is beneficial or harmful (Alexiadou, 2019, 2020, 2023a). In common speech, the terms “ethics” and “morality” or the adjectives “ethical” and “moral” are used synonymously. However, strictly speaking, morality refers to the perplexity of rules, duties, responsibilities, and norms that determine people’s actions. Etymologically, the word “ethics” originates from the ancient Greek “ἔθος” (ethos), which initially referred to habit, character, custom, or convention. Cicero translated the Greek term

into Latin with “mores” (ethos, customs), from which the current notion of morality originates. Basically, ethics can be defined as the interpretation of human actions from the perspective of “good” and “evil,” or more accurately of “morally correct” and “morally wrong.” Many accounts of ethics are developed to help people decide what is morally right. These range from normative—deontological ethics, regarding which actions and norms are normally right or wrong, good or bad, always demanding consent to different forms of normative ethics, making judgments about actions based on different considerations, namely when actions as such are regarded. If the realization of a goal considered morally right is of great significance, then we talk of teleological ethics; i.e., “τέλος” stands for “the goal, the purpose, the end.” In ethics of supreme ends, the individual action is assessed according to the purposes and motives of the individual. If the consequences of an action are decisive, we refer to consequentialist ethics (Lütge & Uhl, 2021; Mason & Laurie, 2006). A variant of consequentialist ethics is utilitarian ethics, whose norm is the greatest possible benefit for the greatest possible number of individuals (Alexiadou, 2019, 2020, 2023a). Evidently, in between these options—each of which, in its own way, discourages trivial moral debates—there is a range of categories to which moral responses might be allocated (Lütge & Uhl, 2021; Mason & Laurie, 2006).

Inherent in many of these philosophical theories is Aristotle’s syllogism concerning the true nature of morality. Aristotle highlights the division between morality and the “pure science” (Alexiadou, 2018; Aristotle, 1926). Accordingly he emphasizes, . . .since our purpose is to speak about ethics, we must first inquire of what moral character is a branch. To speak concisely, then, it would seem to be a branch of nothing else than statecraft. For it is not possible to act at all in affairs of state unless one is of a certain kind, to wit, good. Now to be good is to possess the virtues. If therefore one is to act successfully in affairs of state, one must be of a good moral character. The treatment of moral character then is, as it seems, a branch and starting point of statecraft. And as a whole it seems to me that the subject ought rightly to be called, not ethics, but politics. (Alexiadou, 2018; Aristotle, 1915, p. 43) Aristotle’s approach of morality is that moral duty—obligation—presupposes acting impartially and justly, while being linked with the reasons and consequences that follow the action (Alexiadou, 2018; Berger, 2009). In fact, in the literature it is maintained that morality can be divided into two categories, namely the individual and the communal. Aristotle is committed to the idea that the purpose or goal of every individual abides by the purpose of the community (Alexiadou, 2018). For that reason, Aristotle’s morality is a civil morality, namely a philosophy of human cohabitation. One might reasonably conclude from the above statement that Aristotle insinuates that individual morality is distinguished from civil morality. Thus, ethical discourse is concerned with the quest for justification and explanation on matters involving ethical conduct, ethical decision-making, and ethical action. Therefore, ethics discusses the definition of morality and consideration of right conducts (Alexiadou, 2018; Mason & Laurie, 2006).

Within this context, there is a variety of ethical theories intertwining with one another; however, two philosophical theories (see Fig. 2), the deontological with

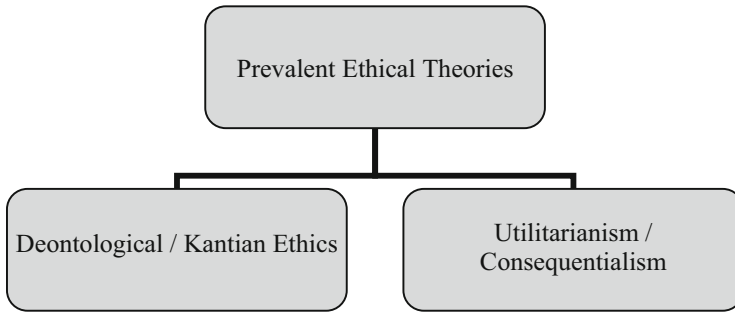


Fig. 2 Prevalent ethical theories (source: the Author)

Immanuel Kant and the utilitarian with Jeremy Bentham and John Stuart Mill, prevail (Alexiadou, 2019, 2020, 2023a, 2023b; Goodchild, 1986; Letwin et al., 2016). These theories can help articulate an overarching framework for guiding businesses and corporations, inter alia, to (1) abide by corporate social responsibility (CSR) projects and consequently improve their environmental footprint; (2) respect the rights of employees, such as their dignity, autonomy, integrity, and privacy, and their rights to a proper health insurance program, to decent salaries, and to a fair compensation; (3) resolve practical problems in an ethical way; (4) designate the role and impact of a business or a corporation on society, economy, or politics; and (5) define the standards of fair competition with other businesses and corporations (Audi, 2012; Lütge & Uhl, 2021).

2.1.1 A Deontological Approach

Deontological theories focus on the rightness or wrongness of an act in itself and not on the consequences which that act will have; rather they are concerned with identifying the motivations for the act which define it as ethically acceptable or not (Alexiadou, 2020, 2023a). In essence, “deontology” emanating from the Greek word “deon” defines responsibilities and commitments (Audi, 2012; Lütge & Uhl, 2021).

Immanuel Kant’s categorical imperative constituting the foundation for abstract morality has greatly influenced deontological ethics (Alexiadou, 2019, 2020, 2023a). Specifically, Kant in his treatise *Grounding for the Metaphysics of Morals* (1886) encourages individuals to “act in such a way that you treat humanity, whether in your own person or in the person of another, always at the same time as an end and never simply as a means. . .” (Alexiadou, 2019, 2020, 2023a; Kant, 1886, pp. 37–38). Thereto, we need to place emphasis on the fundamental message of Kant’s deontology that managers/employers, leaders, and people in general should not manipulate or exploit other individuals, but they should respect their value,

integrity, and autonomy (Alexiadou, 2019, 2020, 2023a; Alcabes & Williams, 2002; Mason & Laurie, 2006; Pigliucci, 2003).

Notably, Kant's ethics brings about a quadruple typology of obligations, namely (1) perfect obligations to oneself, i.e., obeying the law; (2) perfect obligations to other individuals, i.e., being honest and trustworthy; (3) imperfect obligations to oneself, i.e., cultivating one's character and inclinations; and (4) imperfect duties to others, i.e., being benevolent (Alexiadou, 2020, 2023a; Guyer, 1998; Kant, 1886; Ruger, 2010). Critics of Kantian deontological ethics often accuse Kant of rigorously in his perspective, concerning the deficiency of human intuitions as to what is right or wrong at the time or as to the significance of the virtues (Alexiadou, 2020, 2023a; Mason & Laurie, 2006).

To exemplify, if the Deontological/Kantian approach is employed in business policies and strategies, the following prerequisites should be taken into consideration: (1) to respect the equal entitlement of all (employees, employers/managers) to enjoy a life in freedom within the boundaries of justice that is relevant for all; (2) to fully comply with a set of core obligations, such as personal responsibility, consciousness, fairness, trustworthiness, fidelity, reparation, gratitude, justice, beneficence, non-maleficence, and self-improvement; (3) to pursue one's own happiness (profit, benefit, well-being, prosperity) without endangering any another individual's happiness; (4) to articulate the rules regarding managerial judgments and decisions, whether in rewarding merit or in punishing violations, in order that clarity in the ethical climate within a business and incentives toward ethical conduct are well served; (5) to be concerned not only about the result for making ethical judgments or for taking ethical decisions, but also about the right intention of an action or a conduct in a certain circumstance; (6) to rule out any exploitive or manipulative conduct, as in assigning to employees suspicious missions and duties without adequate warning and their proper consent; and (7) to cultivate a climate of mutual respect, inclusiveness, equity, and acceptance essential for ethical business and for the good of all stakeholders (Audi, 2012; Lütge & Uhl, 2021; Vevere, 2020a). Therefore, an ethical invigoration of the business policies and strategies can only be accomplished by encouraging businesses and corporations to impose upon themselves some measure of self-regulating along the lines of deontological ethics. Principles of deontology should guide executive decision-making particularly when executives are tempted to operate outside of codified legislation or are confronted with ethical dilemmas. Specifically, an ethical dilemma in the public as well as in the private sphere encompasses five components, namely (Hodge et al., 1996, p. 67): (1) decisions or actions are usually followed by widespread consequences; (2) decisions or actions are often followed by unpredictable consequences; and (3) when individuals decide or act, they encounter a variety of options. Therefore, they must employ reasonable arguments to justify their decisions or actions; (4) decisions or actions produce compound results; and (5) decisions or actions influence various aspects of public life, inter alia society, the economy, and the environment. Therefore, the implementation of ethical and deontological reasoning in individuals'

decisions and actions constitutes the core issue in the above components of an “ethical dilemma” (Hodge et al., 1996, p. 67). Without doubt, an exclusive focus on a desired outcome of one’s action, striven for at all cost, potentially revokes the humanistic entitlement of others and degrades them to a mere means for one’s goal, thus transgressing the end-in-itself formula of Kant’s categorical imperative. That said, if the motivation is self-interest, decision-making is likely to be diminished to utilitarian risk–reward calculations (Micewski & Troy, 2007).

2.1.2 A Utilitarian Approach

On the other hand, critics of deontology of ethics hold that a strict Kantian scholar does not give sufficient merit to human perception as to what is right or wrong. Accordingly, transgressing the ethical norms is actually erroneous (Alexiadou, 2019, 2020, 2023a; Spielthener, 2015). Alternatively, utilitarianism with Jeremy Bentham and John Stuart Mill, one of the variants of consequentialism, identifies the human feelings indeed in ethical dilemmas as well as takes into consideration the consequences which follow people’s actions (Alexiadou, 2019, 2020, 2023a). Specifically, utilitarianism calls for examining the results of various behaviors to determine which one aims at the greatest good for the greatest number—that benefits outweigh harms. For example, if a lie in a specific situation would cause only limited harm offset by substantial benefit for the good of all, then a utilitarian consequentialist would disagree with a deontologist’s inclination to call lying unethical. Additionally, utilitarianism holds that a conduct intending to maximize, to improve the welfare of the society as a whole, is considered rational. However, this approach does not adequately justify which conduct is considered right or wrong (Alcades & Williams, 2002; Alexiadou, 2019, 2020, 2023a; Audi, 2012; Krisnajaya, 2018; Letwin et al., 2016; Mason & Laurie, 2006). In this sense, utilitarian ethics differs from the categorical imperative of the Kantian ethics. But while utilitarianism shifts the principle, upon which the ethical code relies, from truth to happiness, it shares some principles with Kantian ethics, namely that ethical conduct is still performed by “do” and “don’t” (Alcades & Williams, 2002; Alexiadou, 2019, 2020, 2023a; Audi, 2012; Krisnajaya, 2018; Letwin et al., 2016; Mason & Laurie, 2006).

In order to adopt the utilitarian method in business policies six subsequent measures need to be taken into account: (1) to define all possible actions for a certain case; (2) to identify all parties who are affected by each possible action; (3) to diagnose and evaluate the amount of harm inflicted to all parties; (4) to resume all benefits and harms as well deriving from each possible action; (5) to consider the impact of each possible action on the overall happiness of all affected; and (6) to choose that action which maximizes and improves the overall happiness. Eventually, according to utilitarianism, the selected action would be the ethically right one (Veveve, 2020a).

3 Conceptualizing Business Ethics

In terms of conceptualizing business ethics, a number of respective theories and principles will be subsequently set out through an exemplary analysis. This refinement can add substance to the scope of business ethics. As W. Norman argued, “business ethics is a concise, but in many ways misleading, label for an interdisciplinary field covering a vast range of normative issues in the world of commerce. The label lends itself most directly to a core set of questions about how individuals in the business world ought to behave, or what principles they might appeal to in order to negotiate moral dilemmas at work. But if we consider the array of topics covered in the leading business ethics journals or textbooks, we see that these core issues about individual virtues and ethical decision-making are surrounded by layers of issues involving organizations and institutions. In other words, business ethics in the broadest sense also inquires about the most appropriate or just designs for firms, markets, market regulations, and political oversight in a democratic society and a globalized economy” (Norman, 2013, p. 652; Vevere, 2020a).¹ Within this context, it is plausible to discern that the scope of business ethics extends to and gives rise to a certain number of questions, as follows: What degree of inequality is defensible or even necessary to enable prosperity for various strata of society? Is price discrimination morally wrongful? What is a just price—is it any price agreed to by the buyer and seller, absent force or fraud, or are there some substantive pricing norms to which buyers and sellers must adhere, as well? (Lütge & Uhl, 2021; Marcoux, 2006).

Meanwhile, ensuring the implementation of codes of ethics in businesses and organizations gives rise to a number of significant and practical issues, involving, *inter alia*, the content and the scope of a good code of ethics. Interestingly, Kaptein identified four information layers and four qualities that feature a good code of ethics (Kaptein, 2008, 2014; Lütge & Uhl, 2021). The four information layers can be depicted in the shape of a pyramid. The lower the layer, the more concrete and detailed the expectations of the conduct both of the managers and of the employees. The company’s or organization’s mission is at the very top. Subsequently it is the layer of core values of the organization, which include integrity, loyalty, teamwork/cooperation, innovation/creativity, professionalism, honesty, responsibility,

¹It should be noted that business ethics and professional ethics are closely related, in that professional ethics concerns (1) the professional conduct, namely the conduct of a professional actor toward a client, a consumer, or a patient, and (2) the ethical issues arising in a business environment regarding the rights and duties, the rightness, or wrongness of an action. To exemplify, if we resort to the conduct of a healthcare professional toward a patient, then the ethically appropriate conduct could be determined by the application of a set of four core principles that guide the actions and behavior of a healthcare professional, namely (1) respect for patient autonomy; (2) beneficence; (3) non-maleficence; and (4) justice. Specifically, a variety of substantive ethical concerns could be defined by one or some combination of the above principles, such as patient’s rights and claims, human well-being, loss of life, consultation, benefits and harms, the system of justice (distributive or discriminatory), public safety, and patient’s autonomy (Beauchamp & Childress, 2001; Gewirth, 1986; Chadwick, 1997; Gillon, 2003; Mason & Laurie, 2006).

conscientiousness, mutual trust, acceptance, tolerance, and harmony. Below the core values are first the responsibilities toward the stakeholders, and finally, at the bottom of the pyramid the individual rules and guidelines are found (Kaptein, 2008, 2014; Lütge & Uhl, 2021).

At the same time, a good and effective code of business ethics comprises four qualities/prerequisites, involving the following: (1) Comprehensive: the code encompasses everything the company stands for; it addresses issues which the organization is required to respond to; it provides the necessary guidance on the dilemmas managers and employees confront (Kaptein, 2008). (2) Morally justifiable/ethically defensible: the company embarks on the basis of the code companies can adopt to address various issues arising from its activities; the code is defensible, namely it can be liable to rigorous moral scrutiny, and therefore, general consensus can be achieved. Consequently, the code should be indeed ethical in the sense that it is ethically justifiable, defensible, sustainable, and morally acceptable (Kaptein, 2008). (3) Authentic/genuine: the code is tailor-made to each organization respectively; it is coherent, alluring, and appealing; it stipulates not only “what should not be done” but mainly “what should be done”; it constitutes an integrated and balanced whole and not an ad hoc amalgamation of divergent and confusing elements (Kaptein, 2008). (4) Manageable: the code should be feasible, readable, accessible, practicable, well-structured, internally consistent, and realistic, regarding what can be achieved in the medium term with good will and a collective effort. Otherwise, the code would be perceived by the managers as well as the employees as a document full of void, insincere, and mere words, without any substantial content and meaning (Kaptein, 2008).

Meanwhile, to emphasize the pivotal role of ethics in business, Vevere (2020a) has interpreted it from the angle of a tripartite typology of interrelated and essential elements (the three “Cs”) to be applied with regard to all business-related services and organizations, as follows: (1) Compliance: Businesses or organizations, in order to have a successful impact, *inter alia*, on society, economy, and environment, should abide by the laws and regulations and evolve ethical business practices and policies (Vevere, 2020a); (2) Contribution: When businesses or organizations provide goods and services that meet quality requirements, they contribute to the common good (Vevere, 2020a); (3) Consequences: A potential (adverse) effect on the environment and society related to the business activities or its business relationships. In light of the above, it is plausible to discern that business ethics has binary objectives; that is, it assesses individual practices on the basis of ethical standards, while it can also provide comprehensive guidance on how to act ethically within a specific context (Vevere, 2020a).

Evidently, there is a robust connection between ethics and business. Specifically, this interrelation entails three significant levels regarding business ethics, such as “the individual/ micro-level,” “the organizational-corporate/mid-level,” and “the societal/ macro-level” (Adda et al., 2016; Carroll, 1991; Goodpaster, 2012; Norman, 2013; Vevere, 2020a). First, the “individual/micro-level” relates to the behavior, the stance, the attitude, and the actions within business organization. In fact, this level comprises such ethical issues as leadership, followership, communication, conflict

resolution, and queries about how should managers and employees know what is the “right” thing to do, what rights and obligations do they have, what kinds of actions are permissible, what virtues and character traits should they cultivate, how should they resolve potential ethical dilemmas or conflicts of interests, etc. (Adda et al., 2016; Carroll, 1991; Goodpaster, 2012; Norman, 2013; Vevere, 2020a). Second, the “organizational-corporate/mid-level” regards the activities, policies, and behavior of organization, including issues concerning the deployment of codes of ethics or codes of voluntary ethical behavior and of corporate social responsibility programs (Adda et al., 2016; Carroll, 1991; Goodpaster, 2012; Norman, 2013; Vevere, 2020a). With respect to the above two levels of business ethics, the “societal/macro-level” concerns the structure of markets and their regulation within a democratic state and an international economy, as well as entails questions about the basic institutions in society. Companies or organizations are usually confronted with ethical conundrums in conjunction with a perplexing set of issues as political, economic, environmental, health, and social dynamics change. In this context, it should be noted that this level pertains to issues of human rights, sustainability, and perception of corruption, bribery, discrimination, and exclusion. Therefore, societal level questions usually represent an ongoing debate among major competing institutions (Adda et al., 2016; Carroll, 1991; Goodpaster, 2012; Norman, 2013; Vevere, 2020a).

In light of the preceding analysis, it should be observed that business ethics can be viewed as a tapestry in which an array of philosophical theories intertwine with one another, such as utilitarianism—consequentialism and deontological ethics, on different levels, individual, organizational, and societal, as well as in various business sectors (public or private), manufacturing and service, retailing, human resource management, etc. Nevertheless, there are components that underpin all levels and all sectors of business services and activities. Accordingly, business ethics encompasses the four key components: (1) leadership ethics; (2) followership ethics; (3) communication ethics; and (4) ethics of conflict management and negotiations (Mayer et al., 2012; Vevere, 2020b).

1. Leadership ethics: The threefold leadership model identifies the level of the individual ethics of the leaders, the level of the means of their leadership, and the level of the leadership mission itself. In this regard, it is argued that only by fully comprehending all of the different levels of ethical analysis pertinent to business leadership, as well as the distinctive issues that arise at each level, ethical issues could be integrated into research, teaching, and training in leadership (Palmer, 2009; Vevere, 2020b). At the same time, the means of ethical leadership determine specific actions taken in performing leaders’ practices and conduct. Nevertheless, ethical leadership can also be described in terms of “leadership styles.” Though, it should be observed that none of the “leadership styles” is inherently ethical or unethical, although some of them tend to distinguish ethical dimensions depending on the circumstance. Taking into consideration the leaders’ status on the hierarchy of the organization, he or she can often be viewed as a pattern for normative conduct (Ghahroodri et al., 2013; Mayer et al., 2012; Vevere, 2020b). Meanwhile, the core of leadership presupposes the existence of a

common perspective within the organization. This approach stands in stark contrast, however, if leaders' vision is inherently in conflict either with the mission of the business or when the vision is centered upon the mission that is inherently unattainable (Bowie, 2005; Kaptein, 1998; Vevere, 2020b).

2. Followership ethics: In the literature it is maintained that business ethics places emphasis on the leaders' role in introducing and fostering the culture of ethics in the workplace, as well as enhancing ethical conduct in the working environment (Carsten & Uhl-Bien, 2013; Vevere, 2020b). A concept of authentic followership was introduced in terms of depicting the advancing role of employees' position in businesses or organizations. (Leroy et al., 2015; Vevere, 2020b). The authentic followership involves the following traits: (1) Psychological ownership: The sense of affiliation to an organization; (2) Trust: Deficiencies' admittance and leaders' urge to adopt their stance and attitude; (3) Transparency: The authentic followers are willing to communicate their thoughts, beliefs, and values, to build transparent and solid relations with the management based on honesty, fairness, trustworthiness, feedback, and communication (Johnson, 2012; Vevere, 2020b).
3. Communication ethics: Internal and external communication in organizations or businesses can be depicted as the employment of available resources to communicate significant information, to motivate, and to illuminate. Regardless of the method and framework of communication process, communication ethics embraces three key elements: (1) choice (the choice of the medium for communication), (2) values (the values, the principles to be communicated), and (3) consequences (the consequences of the communication procedure) (Shockley-Zalabak, 2015; Vevere, 2020b). In particular, communication within the working environment (internal) takes place at different levels: "supervisor to employee," "manager to supervisor," and "executives to employees," either person to person or in a group context. The communication process can be formal or informal (Vevere, 2020b). In order to distinguish an ethical from an unethical action of communication within a business or an organization, Redding's classification of unethical organizational communication (Redding, 1996) could be implemented (Vevere, 2020b). However, Redding acknowledges that his typology is by no means exhaustive and the categories are not mutually exclusive. Redding's typology of unethical organizational communication comprises the following six general features that commonly occur in businesses or organizations: (a) Coercive communication: intolerance and restriction of freedom of speech, denial to listen, enforcement of rules and regulations, etc. (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015; Vevere, 2020b); (b) Destructive communication: degradation of receiver's self-respect, dignity, and character, disregard for core values of others (i.e., insults, sarcastic comments referring to individual features such as body weight, gender, race, sex, religion, or ethnicity), etc. Additionally, this type of communication involves concealing information or disclosing it to unauthorized individuals, while information can be employed as a means of employees' intimidation and exploitation (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015;

- Vevere, 2020b); (c) Deceptive communication: ambiguous or deliberately deceptive messages, euphemisms designed to hide defects, to conceal unethical behaviors and activities. The aim of such communication is to pervert receiver's judgment and apprehension of reality (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015; Vevere, 2020b); (d) Intrusive communication: of great significance in the twenty-first century in relation to the deployment of modern technologies (such as social media, smart devices, and artificial intelligence systems) that allow deeply invading into the lives of individuals by leaking significant information (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015; Vevere, 2020b); (e) Secretive communication: collecting and concealing specific information that could unveil legal or ethical violations (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015; Vevere, 2020b); (f) Manipulative-exploitive communication: applying dubious technologies with the aim of taking advantage of people's ignorance, fears, and prejudices (European Commission [EU] - AI HLEG, 2019; Macau, 2009; Redding, 1996; Valde & Miller-Henningsen, 2015; Vevere, 2020b).
4. Ethics of conflict management: The considerable impact that a business' or an organization's culture has on the successful implementation of conflict (a dispute) resolution strategies and processes. These processes cover an extensive variety of conflicts (disputes), for instance (1) conflicts in the working environment (exclusion, intolerance, prejudice, unfairness, bias, intimidation); (2) conflicts outside the working environment (with the consumers and the supplier companies) (Moreno et al., 2009; Panteli & Sockalingam, 2005; Vevere, 2020b; Walker & Deavel, 2008). In the literature, three types of conflict are indicated: (1) Relationship/affective conflict: In the working environment it is related to differences, inter alia, in personality, educational background, character, inclinations, and culture among employees. People with different attitudes, beliefs, and experiences toward certain aspects of life, politics, economy, and society are obliged to cooperate in order to be on good terms with each other. (2) Task/cognitive conflict: Issues related to employees' work duties, different perspectives on procedures and policies, on interpretation of facts, etc. (3) Process conflict: Work procedures, policies, strategies (Moreno et al., 2009; Panteli & Sockalingam, 2005; Vevere, 2020b).

In terms of addressing these issues, Makrydemetres (2002) introduced the "A.L.I.R." pattern, indicating the adoption of the four indispensable requirements for resolving the potential ethical dilemmas as well as defining the ethical and deontological conduct in businesses and organizations, as follows: (1) Democratic accountability; (2) Principle of legality and the rule of law; (3) Professional integrity and autonomy; and (4) Responsiveness to civil society (Alexiadou, 2023b; Makrydemetres, 2002). This pattern is proposed as "the advanced set of fundamental principles or criteria that integrate and rearrange the process of dealing with ethical dilemmas in. . . administration" (Alexiadou, 2023b; Makrydemetres, 2002, p. 255).

Although this four-pillar model of ethical and deontological conduct is under no circumstances adopted as the lingua franca (Alexiadou, 2019, 2020, 2023a; Krisnajaya, 2018; Mason & Laurie, 2006, p. 5) of business ethics; it does serve as a significant pattern of how ethical discourse calls for sufficient argumentation and justification of managers'-employers', employees' actions with regard to universally established values and principles (Alexiadou, 2019, 2020, 2023a).

In essence, the ethical framework for leadership and management is based upon the "Seven Principles of Public Life" by the Committee on Standards in Public Life (CSPL) or the "Nolan Committee on Standards in Public Life" (1995, p. 14)²:

1. Selflessness: Holders of public office should make decisions and act taking into consideration the public good.
2. Integrity: Holders of public office should not succumb to pressures or threats that could jeopardize their work efficiency.
3. Objectivity: Holders of public office should perform their duties with fairness, equity, inclusiveness, and impartiality.
4. Accountability: Holders of public office must be willing to subject themselves to indispensable scrutiny.
5. Openness: Holders of public office should espouse openness and transparency in their course of actions and decisions. They should conceal information from the society only when the circumstances require it.
6. Honesty: Holders of public office are obliged to reveal possible conflict of interests between their duties and the public interest.
7. Leadership: Holders of public office should adopt the above-mentioned principles by leadership (Chapman, 1995; Committee on Standards in Public Life, 1995, p. 14).

Notably, the aim of the Nolan Committee was to disclose these principles for the welfare of all who promote the public good. Therefore, the above-mentioned seven principles could be applied to both the public and private sector (Chapman, 1995; Committee on Standards in Public Life, 1995, p. 14).

With respect to ethical leadership and management, leaders and managers should practice leadership and management by taking into consideration the following personal characteristics or virtues: (1) Trust: leaders are trustworthy and reliable; (2) Wisdom: leaders use experience, knowledge, and insight; (3) Kindness: leaders demonstrate respect, generosity of spirit, understanding, and good temper; (4) Justice: leaders are fair and work for the good of all people; (5) Service: leaders are conscientious and dutiful; (6) Courage: leaders work courageously in the best interests of people; and (7) Optimism: leaders are positive and encouraging (Roberts, 2019).

²The "Nolan Committee on Standards in Public Life" (named after the first chairman of the committee) was founded in 1994 with the duty to examine the ethical requirements of conduct for the holders of public office (Chapman, 1995; Committee on Standards in Public Life, 1995, p. 2).

4 Towards Corporate Social Responsibility

In addition to the value of business ethics in developing responsible business conduct to the benefit of society, corporate social responsibility (CSR) constitutes a niche area within the corporate domain. Growing social awareness of businesses' (adverse) impact on the well-being of societies has led businesses to promote corporate social responsibility aligned to business ethics in their agendas. Indeed, the current global market environment is characterized by fierce and vigorous competition, which pressures all corporations to strive for more success capitalizing on every business strategy or tool to secure sustainability in the market, while at the same time acknowledging their social impact and responsibility (Gheraia et al., 2019).

For over a decade, a number of voluntary initiatives for corporate regulation, such as corporate social responsibility schemes, have been established as a response to the far-reaching repercussions of corporate activities on the enjoyment of human rights and of corporate engagement in environmental abuses in developing countries. Most of these corporate initiatives rely on a set of principles, including human rights standards and/or labour rights standards, established by multilateral institutions [see for instance: (1) the 1976 OECD Guidelines for Multinational Enterprises, last revised in 2011 (OECD, 2011), (2) the 1976 ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Guidelines, last revised in 2017 (International Labour Organization [ILO], 2017)], which participating companies voluntarily commit to respecting their operations and within their sphere of influence (International Federation for Human Rights [FIDH], 2016). Given the gravity of such concerns over time, the United Nations (UN) officially enacted, on July 6th, 2000, the Global Compact (UNGC or GC), a voluntary corporate social responsibility initiative addressed to companies, businesses, or organizations to “do business responsibly by aligning their strategies and operations everywhere with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption” (International Federation for Human Rights [FIDH], 2016, pp. 539–540; UN Global Compact [GC], n.d.-a, p. 1) and to “take strategic actions to advance broader societal goals, such as the UN Sustainable Development Goals (...)” (FIDH, 2016, pp. 539–540; UN GC, n.d.-a, p. 1). Given that the Global Compact boasts over 12,000 participants worldwide, covering 162 countries and over 8000 companies, it has become the most effective impetus for corporate responsibility (FIDH, 2016). Significantly, the UN Global Compact consists of the following ten (10) principles (FIDH, 2016, pp. 539–540; UN GC, n.d.-b, pp. 1–3) as practical tools for businesses and organizations:

1. Businesses should support and respect the protection of internationally proclaimed human rights.
2. Businesses should ensure non-complicity in human rights abuses.
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
4. Businesses should eliminate all forms of forced and compulsory labour.

5. Businesses should effectively abolish child labour.
6. Businesses should eliminate discrimination with regard to employment and occupation.
7. Businesses should support a precautionary approach to environmental challenges.
8. Businesses should undertake initiatives to promote greater environmental responsibility.
9. Businesses should encourage the development and diffusion of environmentally friendly technologies.
10. Businesses should work against corruption in all its forms, including extortion and bribery (FIDH, 2016, pp. 539–540; UN GC, n.d.-b, pp. 1–3).

In light of the above, it is plausible to discern that adherence to human rights standards is no longer seen as an optional issue concerning only small social enterprises. In fact, human rights compliance attracts the focused attention of some of the largest, highly influential, and decision-making businesses and companies in the world (FIDH, 2016, pp. 539–540; UN GC, n.d.-b, pp. 1–3). In essence, many pressing questions arise about how companies can actually integrate concern for human rights, labor, and environmental standards into their policies and practices in an effort to combat and eliminate any structural imbalances that can potentially result in human rights violations. Notably, the successful experimentation of industry leaders, along with the concerns and doubts eloquently expressed by committed stakeholder groups, has yielded an initial consensus about how a company can translate broad human rights principles into action (United Nations [UN] Office High Commissioner for Human Rights, 2007). For this reason, the United Nations (UN) High Commissioner for Human Rights introduced a Nine Step Plan to primarily assist and direct corporations to move their actions toward a greater focus on developing corporate policy in compliance with the UN Global Compact. The framework for action that a company or an organization can adopt is depicted in the following set of policies and strategies (UN Office High Commissioner for Human Rights, 2007, pp. 21–22):

1. Identify human rights issues: These issues can vary significantly depending on the sector and the countries in which a company operates and develops relationships with other businesses. Evaluating the potential human rights impact of a business' operations and relationships can draw attention to strategy setting and implementation.
2. Develop policy options: The core labor standards of the International Labour Organization (ILO) and the Universal Declaration of Human Rights constitute the foundation of a company's policies and a company's roadmap for addressing its unique pressing issues.
3. Operationalizing policy: In order to ensure that the policy or strategy has the desired impact, many businesses or organizations have established guidelines to boost implementation. This process of translating a principle into practice is indispensable, and in some cases can be perplexing.

4. Dialogue/outreach/collaboration: For many businesses or organizations, this constitutes the first step. The meaningful engagement with human rights groups and social partners can reinforce the way a company deals with human rights concerns, as well as can help set up methods of public accountability;
5. Educating key staff/training: it is critical to insure that the employees with the capacity to “make or break” the human rights policy are informed about the value and significance of this policy in practice as well as the ideology behind this policy.
6. Developing appropriate internal capacity: Parallel to environment, health, and safety functions, it is essential for companies to establish human rights specialists. This will help a company to obtain (a) proper expertise on this perplexing issue, (b) the potential to monitor the rapid environmental changes, (c) adequate knowledge to communicate with NGOs and the public sector, (d) the ability to handle cases when a human rights policy might be transgressed, and (e) ensuring that the company’s workforce are liable to implementation.
7. Communication with business partners: It is also critical to ensure that business partners including vendors and subcontractors acknowledge, decide, and act upon a company’s concern for human rights. This can be achieved through (1) training on codes of conduct and human rights standards; (2) adherence to human and labor rights standards in agreements; and (3) sincere and transparent communication with public officials about the need to cultivate a human rights culture.
8. Internal accountability: It is imperative for a business to have in place internal accountability mechanisms, such as performance benchmarks [see for instance the World Benchmarking Alliance and particularly the Corporate Human Rights Benchmark, publicly available benchmarks that monitor and assess corporate progress toward the Sustainable Developmental Goals (World Benchmarking Alliance, 2021)] in terms of designating staff responsible for implementation.
9. Independent verification and public reporting: Companies should engage with public reporting, concerning for instance labour practice (UN Office High Commissioner for Human Rights, 2007, pp. 21–22).

Meanwhile, the most common interpretation of corporate social responsibility in Europe comes from the European Commission’s [EU] Green Paper (2001). Accordingly, “corporate social responsibility is essentially a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment. . . .an increasing number of European companies recognize their social responsibility more and more clearly and consider it as part of their identity. This responsibility is expressed towards employees and more generally towards all the stakeholders affected by business and which in turn can influence its success. . . .companies endeavour to raise the standards of social development, environmental protection and respect of fundamental rights and embrace an open governance, reconciling interests of various stakeholders in an overall approach of quality and sustainability” (EU Green Paper, 2001, p. 4). Of note, corporate social responsibility in its modern framework has been an important and progressing topic since the 1950s. Notably,

this evidence of businesses seeking to improve the society, the community, or particular stakeholder groups may be traced back hundreds of years (Carroll, 2016).

More recently, the European Commission defined corporate social responsibility even more succinctly as “the responsibility of enterprises for their impacts on society” (European Commission [EC], 2011, p. 6). Respect for applicable legislation and for collective agreements between social partners is a prerequisite for meeting that responsibility. To fully comply with their corporate social responsibility, companies are encouraged to consider and encompass social, environmental, ethical, human rights, and consumer concerns into their business policies and develop a core strategy in close collaboration with their stakeholders, within the context of (a) augmenting the creation of shared value for their owners—shareholders and for their other stakeholders and society at large; (b) acknowledging, averting, and mitigating their possible adverse impacts (EC, 2011). The overall aim was to maximize the shared value of both the shareholders and the stakeholders. Additionally, the Commission recommended long-term strategies for implementing corporate social responsibility (Lütge & Uhl, 2021).

Equally important, in terms of the conceptual pluralism of corporate social responsibility—corporate social responsibility is defined as social accounting; corporate citizenship; corporate responsibility; sustainable business; corporate social, sustainable, and environmental responsibility; corporate social performance—the term has established itself globally as a generic term for business ethics theories and issues. It may be assumed that this conceptual analysis is also only provisional as new definitions of corporate social responsibility with additional substantive aspects and new terms referring to old definitions constantly emerge (Gheraia et al., 2019; Lütge & Uhl, 2021). In the academic literature, Archie Carroll, for instance, who strongly influenced the definition of corporate social responsibility, introduced the “Four-Part Model of Corporate Social Responsibility” (see Fig. 3), a multi-layered concept that can be categorized into four interrelated components, namely economic, legal, ethical, and philanthropic (discretionary) responsibilities/expectations/duties that society expects from organizations and businesses (Adda et al., 2016; Carroll, 1991). More specifically, these categorized responsibilities are presented as consecutive layers within a pyramid, in that “true and honest” social responsibility requires the adoption of all four levels consecutively (Gheraia et al., 2019; Lütge & Uhl, 2021). This conjunction of four tangible responsibilities/expectations/duties creates a foundation or infrastructure that helps to delineate in detail and to define or consider the nature of businesses’ responsibilities to the society of which they are an integral part (Gheraia et al., 2019; Lütge & Uhl, 2021).

This being so, Carroll identifies four different levels of corporate responsibility. Accordingly, economic responsibility is a fundamental requirement and therefore forms the basis of the pyramid, pertaining primarily to (a) profitably producing goods and services and meeting customer requirements, (b) performing in a manner consistent with maximizing earnings per share, (c) committing to being as profitable as possible, (d) maintaining a strong competitive position, (e) preserving a high level of operating efficiency, and (f) being consistently profitable (Carroll, 1991, 2016; Godfrey et al., 2016; Lütge & Uhl, 2021).

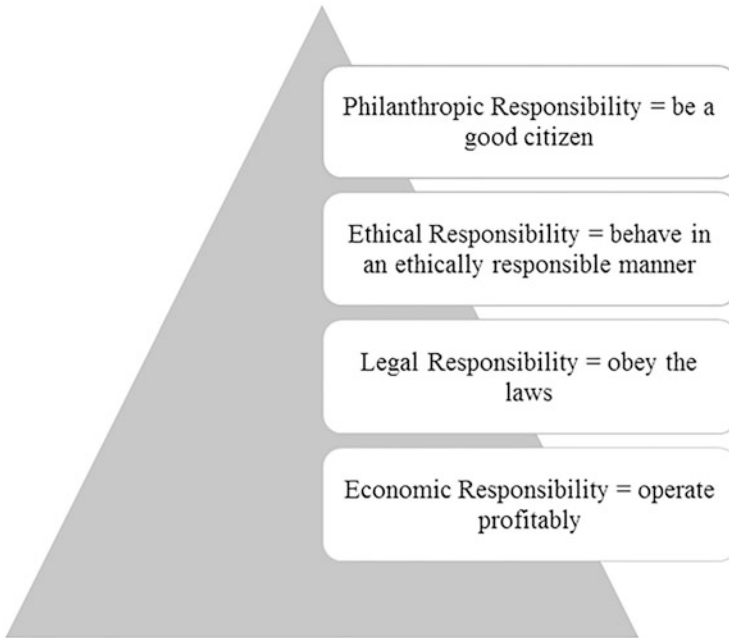


Fig. 3 The “Four-Part Model of Corporate Social Responsibility” (Carroll, 1991, p. 42)

In order for businesses and society to achieve a partial fulfillment of the “social contract,” firms are expected to pursue their economic mission within the framework of the law. Legal responsibilities depict a view of “codified ethics” in the sense that they embody basic notions of fair and just operations as established by the law-makers. Specifically, legal responsibility involves the following duties of an organization or a business: (a) to comply with laws and regulations issued by the national or regional legislature and to pursue its business objectives only within this framework, (b) to perform in a manner consistent with expectations of government and law, (c) to be a law abiding corporate citizen, and (d) to provide goods and services that at least meet minimum legal requirements (Carroll, 1991, 2016; Godfrey et al., 2016; Lütge & Uhl, 2021).

Above the levels of profitability and law compliance lies the level of ethical responsibility. Even though some ethical standards have already been incorporated into the economic and legal framework, ethical responsibility extends beyond this. At issue here are also practices which are desired or even rejected by society and are not codified in laws, such as (a) to act, behave, and live in a manner consistent with expectations of societal mores and ethical norms, (b) to recognize and respect new or evolving ethical norms adopted by society, (c) to prevent ethical norms from being compromised or challenged or even disputed in order to achieve corporate goals, (d) to define good corporate citizenship as doing what is ethically right and expected, and (e) to acknowledge that corporate integrity and ethical conduct go beyond mere compliance with laws and regulations (Carroll, 1991, 2016; Godfrey et al., 2016;

Lütge & Uhl, 2021). Accordingly, an organization or a business that fulfills its ethical responsibility is concerned with standards, norms, and expectations that reflect the moral expectations of consumers, employees, shareholders, and society. These social demands, which are initially met voluntarily, can also be incorporated into binding laws at a later stage. Thus, the legal and ethical responsibilities of the pyramid are in constant interaction with each other (Carroll, 1991, 2016; Godfrey et al., 2016; Lütge & Uhl, 2021).

Finally, at the top of the pyramid, Carroll places philanthropic responsibility. But, whenever one considers “philanthropy” as similar to “ethics,” one inevitably asks: How is the philanthropic level distinguished from the ethical level? Philanthropic responsibility arises from companies’ aspiration to be good citizens in their communities (Carroll, 1991, 2016; Godfrey et al., 2016; Lütge & Uhl, 2021). It involves an active commitment from managers and employees to (a) promoting the common good, for instance by supporting the arts, education, or other social initiatives, (b) participating in voluntary and charitable activities within their local communities, (c) providing assistance to private and public educational institutions, and (d) assisting voluntarily these projects that enhance a community’s “quality of life.” Consequently, corporate philanthropy embraces businesses’ voluntary or discretionary activities. To put simply, philanthropy or business giving may not constitute a responsibility or a duty, in a literal sense, but it is normally expected and anticipated by businesses today and is part of the everyday expectations of society (Carroll, 1991, 2016; Godfrey et al., 2016; Lütge & Uhl, 2021).

Upon first glance, this array of corporate responsibilities and duties may appear broad, in that these responsibilities seem to be in stark contrast to the classical economic argument that management has only one duty, namely to maximize the profits of its owners or shareholders. Without doubt, the preceding analysis revealed that adhering to corporate social responsibility principles has only advantages and benefits to the businesses or organizations in that it (a) serves to restrain extensive abuse, impropriety, and fraudulence against employees; (b) contributes to the enhancement of a business’ or an organization’s profile and to the reinforcement of their profits, sustainability, and general advancement as well; (c) introduces equity, justice, and equal opportunities between businesses or organizations; and (d) promotes the stability and welfare between businesses or organizations and their workforce (Adda et al., 2016; Carroll & Shabana, 2010; Cavico & Mujtaba, 2012; Gheraia et al., 2019). Hence, for Carroll and Buchholtz “corporate social responsibility encompasses the economic, legal, ethical, and philanthropic expectations placed on organizations by society at a given point in time” (Carroll & Buchholtz, 2000, p. 35).

Last but not least, over the last decade sustainable considerations have led mostly large companies to undertake the challenge of social and particularly environmental responsibility. In fact, these companies, in virtue of corporate social responsibility, have implemented different policies and practices for self-regulation, but all oriented toward responding to the external environment as regards actions taken toward greater protection of the natural environment, greater consideration of the social aspects inside and outside the company itself (including the welfare of workers and

Table 1 Sustainable Development Goals (UN General Assembly, 2015, p. 14)

| | |
|---------|---|
| Goal 1 | End poverty in all its forms everywhere |
| Goal 2 | End hunger, achieve food security and improved nutrition, and promote sustainable agriculture |
| Goal 3 | Ensure healthy lives and promote well-being for all at all ages |
| Goal 4 | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all |
| Goal 5 | Achieve gender equality and empower all women and girls |
| Goal 6 | Ensure availability and sustainable management of water and sanitation for all |
| Goal 7 | Ensure access to affordable, reliable, sustainable, and modern energy for all |
| Goal 8 | Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all |
| Goal 9 | Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation |
| Goal 10 | Reduce inequality within and among countries |
| Goal 11 | Make cities and human settlements inclusive, safe, resilient, and sustainable |
| Goal 12 | Ensure sustainable consumption and production patterns |
| Goal 13 | Take urgent action to combat climate change and its impacts |
| Goal 14 | Conserve and sustainably use the oceans, seas, and marine resources for sustainable development |
| Goal 15 | Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss |
| Goal 16 | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels |
| Goal 17 | Strengthen the means of implementation and revitalize the global partnership for sustainable development |

impacts on communities and wider society), and sustainability and adherence to ethics that guide business policies, practices, and processes in the broadest sense (Torelli, 2021).

Thereto, the intensity, severity, and gravity of the challenges posed by businesses' activities and operations demand efficacious shifts. Indeed, in October 2015 the international community adopted the 2030 Agenda for Sustainable Development (the 2030 Agenda) introducing the transition from the Millennium Declaration Goals (MDGs) to the Sustainable Development Goals (SDGs) (UN General Assembly, 2015). In this regard, the 2030 Agenda includes 17 goals (see Table 1), three of which are closely related to business policies and the meaning of corporate social responsibility, namely (1) Goal 8 on the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all, linked with ten targets, which involve, inter alia, the achievement of full and productive employment and decent work for all women and men, eradicating forced

labor, and ending modern slavery and human trafficking, as well as the protection of labor rights and promotion of safe and secure working environments for all workers (UN General Assembly, 2015); (2) Goal 12 on sustainable consumption and production patterns, linked with eight targets, including, *inter alia*, the substantial reduction of waste generation through prevention, reduction, recycling, and reuse, as well as the adoption of sustainable practices by large and transnational companies (UN General Assembly, 2015); and (3) Goal 17 to strengthen the means of implementation and revitalize the “Global Partnership for Sustainable Development” on the acknowledgment of the pivotal role of businesses in productivity, inclusive economic growth job creation, and generally in addressing sustainable developmental challenges (UN General Assembly, 2015). At the same time, a considerable number of other goals can be achieved by business-related commitments, such as Goal 1 (to end poverty), Goal 3 (to ensure healthy lives and promote well-being for all at all ages), Goal 4 (to ensure inclusive and equitable quality education), Goal 5 (to achieve gender equality and empower all women and girls), Goal 6 (to ensure availability and sustainable management of water and sanitation for all), Goal 7 (to ensure access to affordable, reliable, sustainable, and modern energy for all), Goal 9 (to build resilient infrastructure and promote inclusive and sustainable industrialization and foster innovation), Goal 13 (to combat climate change and its impacts), and Goal 15 (to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss) (UN General Assembly, 2015). Therefore, the development and implementation of corporate social responsibility schemes can constitute a powerful contribution to sustainable development and in particular to the achievement of the SDGs.

5 Conclusions: Looking Ahead

The thrust of this chapter is to raise awareness about the notion of an improved ethical, sustainable, and socially responsible organizational and business climate as manifested by moral management. Nevertheless, not all potential paths to the development and implementation of coherent and scrupulous codes of conduct in businesses and organizations are consistent with public needs and expectations, as well as with confidence in the services and products they offer. Hence, the integration of ethics to business management can be a powerful statement of commitment on the part of responsible stakeholders, if accompanied in practice by explicit objectives and monitoring and accountability systems.

Within this context, an ethical framework policy for conduct, action, and management encompassing integrity, liability, accountability, and transparency which will constitute a roadmap toward building a solid ethical basis for the deployment of corporate social responsibility schemes to the actual benefit of all actors (*i.e.*, managers/employers, employees, society, and stakeholders) needs to be developed. Undoubtedly, the implementation of such a framework requires constant regulation,

continuous oversight, coordination, and vigilance in terms of forming a strong and contemporary code of ethics which will be employed by companies and organizations as well as employees when it comes to resolving various ethical dilemmas and challenges in practice. Hence, corporate social responsibility, following the significant value of business ethics, constitutes a critical determinant of promoting the key ethical features of a company's culture, such as transparency, diversity, inclusion, and equality; governance; volunteerism; and philanthropy in the market. Managers/employers, employees, society, and other stakeholders should employ ethics as a form of liability limitation to the unethical management practices in the market.

In general, ethics in business embodying fairness, justice, and human rights principles has the potential to unlock, reveal, and address the unethical, unfair, and obscure business practices that constitute barriers to the development of sustainable societies and economies. After all, as Grace and Cohen opine, ethics . . . is at the very least, the effort to guide one's conduct by reason—that is to do what there are the best reasons for doing—while giving equal weight to the best interests of each individual who will be affected by one's conduct (Grace & Cohen, 1998, p. 5).

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Multinational Enterprises as Bridging Institutional Actors Toward Sustainability



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Abstract The way through which multinational enterprises (MNEs) internationalize across countries and interact with institutions and societies shapes their economic, social, and political role. Extant literature has entrusted MNEs with these roles through which they are capable of affecting country contexts, their institutions, and societies and prompt a change toward sustainability. Nonetheless, a clear picture of such roles, and their interplay, remains a challenge for the interpretation of how MNEs deal with sustainability goals. By conducting a qualitative examination of the IKEA case, this chapter aims to develop knowledge about and show how MNEs define sustainability goals at both global and local levels. We argue that MNEs act as *bridging institutional actors* when they effectively manage the interplay of economic, social, and political roles. This study contributes to international business research by illustrating how MNEs take advantage of their presence across different countries to promote sustainable development and offering a clear picture of the multiple roles that MNEs play toward sustainability. Furthermore, it connects international business research and social issues in management studies by conceptualizing the role of MNEs as bridging institutional actors in the sustainability field.

1 Introduction

Multinational enterprises (MNEs) operate across multiple countries through their global supply chains. In building sustainable supply chains, they cascade sustainability requirements to their suppliers and sub-suppliers dispersed around the globe (Boström, 2015). However, it requires many efforts. MNEs need to mobilize resources and capabilities across developed and developing countries and set appropriate conditions to comply with global sustainable agendas (Campbell et al., 2012; Desa, 2012; Ioannou & Serafeim, 2012). Although MNEs increasingly work to

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integrate the concept of sustainability in their business model by adopting codes of conduct and corporate standards, a range of questions concerning their effectiveness persists (Kaptein, 2004; Kolk & Van Tulder, 2002; Lund-Thomsen & Lindgreen, 2014; Nadvi, 2008; Yu, 2008). As required by the UN 2030 Agenda, MNEs need to act in partnerships and, through these organizational settings, they have a great potential to contribute to the sustainable goals' definition and positively impact people and the planet (Calton et al., 2013; Carter & Rogers, 2008; Montiel et al., 2021).

Extant literature has entrusted MNEs with multiple roles through which they are capable of affecting country contexts, their institutions, and societies (Fortwengel & Jackson, 2016; Leca et al., 2008) and prompting a change toward sustainability (Zietsma & Lawrence, 2010). In approaching this issue, research has separately advanced over time by conceptualizing MNEs in different ways, i.e., international *economic actors* (Coviello et al., 2011; Morgan & Quack, 2005; Whitley, 1994), *social actors* (Brown et al., 2010; Hofferberth et al., 2011; Trittin-Ulbrich, 2022), and *political actors* (Rasche et al., 2008; Scherer et al., 2006; Scherer & Palazzo, 2011). Though MNEs' roles reflect a multifaceted nature, a clear picture of such roles, and their interplay, remains a challenge to interpreting how MNEs deal with sustainability goals.

This chapter aims to offer a more fine-grained understanding of how MNEs perform multiple roles and act toward sustainability. Specifically, we shed light on how MNEs define sustainable goals by studying the case of IKEA and its actions to reach the Sustainable Development Goals (SDGs) elaborated in the UN's Agenda 2030. The selection of IKEA lies in its wide international presence in more than 50 countries. In recent years, IKEA has shown a significant commitment to preserving natural and human resources across countries and actively engaging in sustainability partnerships with public and private actors. We intend to illustrate how IKEA performs multiple roles to reach SDGs by acting together with public actors, civil society organizations, and businesses. Following this aim, we build a conceptual framework that shows three roles MNEs play—economic, social, and political—that affect sustainability. Finally, we illustrate how MNEs move between these, creating a potential intersection “bridging institutional actor” that unveils promising effects on sustainability.

This chapter contributes to international business research by illustrating how MNEs take advantage of their presence across different countries to promote sustainable development and offering a clear picture of the multiple roles that MNEs play toward sustainability. Furthermore, it connects international business research and social issues in management studies by conceptualizing the role of MNEs as bridging institutional actors in the sustainability field.

We structure the chapter as follows. First, we review the literature that informs the research topic. Second, we describe and justify methodological choices. Third, we illustrate the case study. Fourth, we discuss our findings and provide a conceptual framework describing the multiple roles through which sustainability goals are defined and explain how MNEs move between them. To conclude, we summarize our contributions and present the limitations of our research.

2 Literature Background

In 2015, the United Nations (UN) elaborated its 2030 Agenda representing a blueprint for reaching a sustainable future for all by defining the 17 SDGs such as “Decent work and economic growth” (SDG 8), “Responsible consumption and production” (SDG 12), “Climate action” (SDG 13), “Partnerships for goals” (SDG 17), and so on. Additionally, the UN fixed 169 targets that guide the implementation of the associated SDGs. While the 2030 Agenda sets universal and wide-ranging sustainability goals, considerable differences among countries—in terms of institutions, levels of development, public policies, and resources (Campbell et al., 2012)—should be considered when policymakers, the business community, and, more generally, all people are demanded to address sustainable development.

Public governance is essential to reach sustainable development at both global and local levels (Bulkeley & Betsill, 2005; Rotmans et al., 2001). However, the restriction to governmental jurisdictions leads to articulating and addressing sustainability goals at a country (or macro-regional) level without realizing that global interconnectedness between countries has great potential to influence environmental disasters, humanitarian crises, climate change, and so on (Scherer et al., 2014). Furthermore, especially in developing countries characterized by weak institutions, governments tend to leave legal voids and regulation gaps (Abbott & Snidal, 2010; Doh et al., 2017). In this regard, extant research shows that multinational enterprises (MNEs) are responsible for driving sustainable impact worldwide and proves their intervention replacing and/or complementing that of governments (Montiel et al., 2021; PwC, 2019; Scherer et al., 2014). In doing so, they can perform economic, social, and political roles.

MNEs as *economic actors* “shape their organizational and institutional contexts as their activities internationalize” (Morgan & Quack, 2005, p. 1765), and leverage countries’ endowments and power positions to create financial wealth (Coviello et al., 2011). Spanning across home and host countries, MNEs handle different regulative, normative, and cognitive institutions, and great efforts are required to adapt their strategy and organizational processes to institutional contexts or even to promote a change toward sustainability (Wu & Jia, 2018). MNEs mostly operate in value chains that are defined as “buyer-driven” because they own the bargaining power to impose specific rules on their suppliers and sub-suppliers (Gereffi & Lee, 2016). By imposing codes of conduct and sustainability requirements along the entire value chain dispersing across different institutional contexts, MNEs are capable of altering institutional settings in which they are located and provide them with resources and support to face sustainability challenges (Lund-Thomsen, 2008). Therefore, MNEs can go beyond the creation of financial value as the only purpose of international economic actors and encompass social issues without undermining their financial profitability. The concept of “blended value” advances to offer a new perspective toward creating financial and social value (Zahra et al., 2014). With a structure of financially sustainable firms, MNEs can respond to the unmet needs of communities, engage with societies, and perform social conduct.

Particularly, when they attempt to integrate economic rationales with non-economic ones for social engagement, they behave as *social actors* (Brown et al., 2010). Furthermore, they may play a *political role* when, by acting in the name of public interest, their activities “aim to shape government policy” in ways that are favorable to themselves (Scherer et al., 2014, p. 147).

3 Methodology

Given the explorative nature of this research, we draw on a qualitative investigation applied to a single case study (Langley & Abdallah, 2011). Carrying out a single case investigation allows researchers to provide a fine-grained understanding that could not be reasonably reachable with large samples (Golden-Biddle & Locke, 1993; Siggelkow, 2007). Our investigation leverages a narrative approach that respects the scientific criteria of theoretical sampling justification and multiple data sources to triangulate facts (Gibbert et al., 2008; Yin, 2003).

3.1 Theoretical Sampling

Our study focuses on the case of IKEA, and several reasons lead us to examine this MNE. First, the Swedish MNE is the world’s largest furniture retailer. As of August 31st, 2022, IKEA possesses a worldwide business presence by operating in 52 countries through stores and distribution centers. IKEA declares that “its success lies in both global integration and local responsiveness strategies” (IKEA, n.d.-g).

Second, IKEA is accountable for almost 1% of world commercial-product wood consumption which makes it one of the largest consumers of wood in the retail sector and therefore under the spotlight of environmentalist activism (The Guardian, 2012). Nevertheless, IKEA is engaged in several ambitious social and environmental initiatives, and it annually reviews its sustainability strategy “People & Planet Positive” to align it with the 2030 Agenda and its SDGs. Since we aim to explore how MNEs play their roles in defining sustainability goals at both global and local levels, IKEA responds to our research interests.

Finally, access to information appears essential to inform the case selection decision, justify the sample selection, and set conditions to perform an information-rich case (Locke, 2000; Patton, 1990). As IKEA published its first “IKEA Social and Environmental Responsibility Report” in 2004, we can access archival data about its sustainability commitments for 18 years (from 2004 to 2022). Additionally, the IKEA website releases much information on how it advocates for sustainability. Thus, we ensure adequate data richness and variety.

3.2 Data Sources

To investigate the case of IKEA, a wide range of primary and secondary data was collected. First, we gathered sustainability annual reports and specific guides describing IKEA's social and environmental initiatives published on the IKEA website as a primary source of information (e.g., Guide—Developing and collaborating with social businesses connected to the IKEA value chain). Second, we leverage a variety of secondary source information such as academic papers, books, and book chapters published in scientific journals and news articles related to IKEA and its sustainability initiatives published in the most popular newspapers (e.g., *The Wall Street Journal*). Additionally, we collected several interviews, videos, and talks published on the YouTube channel that explain how it addresses sustainability issues.

Finally, in our quest to advance knowledge about IKEA and sustainability, we employed the teaching case study deployed at the Harvard Business School, i.e., “Sustainability at IKEA Group” (Rangan et al., 2014). Teaching case studies can be used as a source of detailed and rich data as they “enable the researcher to retain and explore the idiosyncratic detail of the trees while generating an understanding of the background forest” (Ambrosini et al., 2010, p. 209). For a detailed description of our data collection, see Table 1.

4 The Case of IKEA and SDGs

This case study illustrates how IKEA operates and creates new organizational settings with multiple actors to define global and local sustainability goals and reach SDGs. Since 2004, IKEA has engaged in sustainability initiatives, and in 2011, it created the role of Chief Sustainability Officer (CSO) with the responsibility to formulate and implement IKEA's sustainability strategy. Involving this member was a clear sign that “IKEA's leadership was seeking transformational change to enable the company to better anticipate and address sustainability issues” (Rangan et al., 2014, p. 4). By the end of 2014, IKEA employs nearly 500 people who directly work toward the reaching of its sustainability strategy (Rangan et al., 2014).

Since the UN's 2030 Agenda was elaborated and, therefore, since 2015, IKEA has included in its sustainability reports (IKEA Sustainability Reports FY15–FY22) the section “SDG Index” that presents a description of how it contributes to the reaching of all 17 SDGs. The UN's sustainability goals are cross related to each other. Hence, when IKEA makes efforts to reach a specific SDG, it can positively contribute toward other SDGs.

In the following, we illustrate how IKEA, by setting partnerships with other actors and, therefore, addressing SDG 17, simultaneously contributes to reaching a wider set of SDGs. In doing so, IKEA advances new practices and goals with public actors, civil society organizations, and businesses to have an impact on sustainability

Table 1 Data collection

| Data sources | Data |
|---|---|
| IKEA reports | IKEA Sustainability Report FY15–FY22 Annual Review IKEA Social Entrepreneurship FY19–FY20–FY21 |
| IKEA publications | Guide: Developing and collaborating with social businesses producing products for IKEA (September 2019) Climate action: IKEA signs “Uniting business and governments to recover better” (May 2020) Corporate-Ready: How corporations and social enterprises do business together to drive impact (December 2021) IKEA on media reports on working conditions in Belarus (November 2022) |
| Interviews with IKEA’s actors gathered on YouTube | 1 interview with 12 IKEA sustainable ambassador at Glasgow store 1 interview with IKEA President 4 interviews with Steve Howard, IKEA Chief Sustainability Officer 1 interview with Angela Hultberg, Head of Sustainable Mobility at IKEA 1 interview with Joanna Yarrow, Head of Sustainable & Healthy Living 1 interview with Jan Gardberg, CEO and Chief Sustainability Officer at IKEA Australia 1 interview with Jan-Olof Fechter, Category Area Material and Technique Engineer at IKEA 1 interview with Michael Germann, Creative Leader Material at IKEA 1 interview with Jesper Brodin, Ingka Group CEO 1 interview with Juvencio Maeztu, IKEA Chief Financial Officer 1 interview with Hakan Nordkvist, Head of Sustainability Innovation 1 interview with Pia Heidenmark Cook, IKEA ex-Chief Sustainability Officer |
| Academic papers, books, and teaching case on IKEA | Andersen and Skjoett-Larsen (2009), Bartlett et al. (2006), Edvardsson and Enquist (2011), Ivarsson and Alvstam (2011), Jonsson and Foss (2011), Klooster (2006), Laurin and Fantazy (2017), Morsing and Roepstorff (2015), Pedersen and Andersen (2006), Rangan et al. (2014), Song (2021), and Van Tulder et al. (2009) |
| Newspaper articles | Companies Say They Want to Save the Planet—but They Can’t Agree How (The Wall Street of Journal, Dec 2019) Companies From IKEA to Microsoft Call for Clear Climate Policy as They Head to Glasgow (The Wall Street of Journal, Oct 2021) Ikea to go ‘forest positive’ – but serious challenges lie ahead (The Guardian, Dec 2012) Will Ikea’s recycling scheme really make it greener? (The Guardian, Feb 2021) Ikea to invest £3.4bn in renewable energy by 2030 (The |

(continued)

Table 1 (continued)

| Data sources | Data |
|--------------|---|
| | Guardian, Apr 2021) Ikea shows the challenge of sustainability for companies (Financial Times, Nov 2021) |
| Websites | Ceres website; Financial Times website; IKEA website; IKEA Social Entrepreneurship website; IKEA Foundation website; The Guardian website; United Nations Global Compact; Wikipedia website |

over time. At the beginning of this path, the strongest of IKEA's commitments was to monitor its global supply chain by imposing social and environmental requirements on its suppliers. A surge of interest in collaborating with social businesses and civil society organizations (primarily operating in developing countries) starts to grow together with the need to support public actors in the fight against humanitarian and environmental crises. Therefore, we unveil that IKEA, initially by influencing its suppliers and later acting together with civil society organizations, social businesses, and public actors, has made substantial efforts to align its strategy processes to sustainability challenges. In this regard, we identify how IKEA acts as an international *economic*, *social*, and *political actor* to promote sustainability and reach SDGs.

4.1 *IKEA as an Economic Actor in Promoting Sustainability*

IKEA employs its strong internationalization experience to cooperate with approximately 1600 suppliers (IKEA, n.d.-d). Since 2000, IKEA has worked with its suppliers worldwide to monitor the social and environmental impact of its entire global supply chain. It ensures suppliers' compliance with specific sustainability requirements through the adoption of the "IWAY" code of conduct.

IWAY is the IKEA way for responsibly procuring products, services, materials, and components. It sets clear expectations and ways of working for environmental, social, and working conditions, as well as animal welfare, and is mandatory for all suppliers and service providers that work with IKEA (IKEA, n.d.-d)

Dealing with a pioneer like IKEA, whose orders are typically huge, represents an appealing opportunity for suppliers. IKEA's dimension, reputation, and corporate history are aspects that strongly attract suppliers (Andersen & Skjoett-Larsen, 2009). However, the relationships between IKEA and its suppliers are worthy of further scrutiny. On the one hand, IKEA suppliers are expected to show a specific commitment to sustainability issues and work with the IWAY. On the other hand, IKEA needs to employ mechanisms to monitor and measure suppliers' conformance to the code of conduct. From a conceptual perspective, in this regard, Andersen and Skjoett-Larsen (2009) identify two internal mechanisms used by the global retailer:

knowledge-enhancing mechanisms and knowledge-controlling mechanisms. The *knowledge-enhancing mechanisms* consist of enhancing and maintaining the abilities and skills of IKEA suppliers in addressing sustainability issues. For instance, these mechanisms involve training courses, sharing experience among suppliers' employees, and visits to suppliers' plants. The example of IKEA illustrates that, in building sustainable supply chains, MNEs should cascade sustainability requirements to their tier-one and lower-tier suppliers, but it requires substantial effort. With the "trading to purchasing" approach, each of IKEA's 16 regional trading areas has a purchasing team that monitors all aspects of the productive processes carried out by suppliers and verifies the correct implementation of the IWAY code of conduct. This approach leads to building long-term relationships based on developing capabilities of fewer suppliers rather than engaging in short-term relationships with many suppliers having a unique focus on the sourcing of materials and products (Andersen & Skjoett-Larsen, 2009).

The *knowledge-controlling mechanisms* involve performance measurement systems and the presence of "change agents" who play a central role by encouraging IKEA suppliers to work toward sustainability goals. The performance measurement systems evaluate suppliers' conformance to IWAY on a four-step staircase model (i.e., Must, Basic, Advanced, and Excellent). IKEA suppliers make significant investments to reach a good score and prove their reliability. Additionally, the implementation of these systems occurs at both global and local levels. At the global level, IKEA sets equal IWAY monitoring standards. It verifies suppliers' compliance through IKEA auditors and independent third-party auditors. In contrast, at the local level, it works with the supplier's purchasing team to establish appropriate sustainability targets "based on their individual business and regional setups," capacity-building, and learning activities (IKEA, n.d.-a).

With our long-term approach, we seek to create sustainable change for the better wherever we are present. We take our responsibility seriously to ensure we have embedded processes to identify and minimise risks through robust due diligence processes, including verification by third-party auditors (IKEA on media reports on working conditions in Belarus—IKEA Publication)

The auditing systems are crucial to verify the suppliers' conformance to IKEA's requirements. For instance, in its wood supply chain:

Ikea relies on three layers of protection in its wood supply chain, according to Ulf Johansson, wood supply and forestry manager at Inter Ikea. Suppliers have to present an annual wood procurement plan; a team of 40 internal wood supply specialists do about 200 audits each year; and Ikea also uses third-party auditors, both in announced and unannounced visits (Financial Times, 2021)

Therefore, the IWAY code of conduct and related mechanisms represent corporate instruments through which IKEA operates privately within its supply chain for the promotion of sustainability, requires its global suppliers and service providers to observe sustainability requirements, and, in doing so, addresses SDG 4 "Quality education," SDG 8 "Decent work and economic growth," and SDG 15 "Life on land."

In addressing SDG 4, IKEA provides training to develop suppliers' capabilities in responsible recruitment, include young workers in its supply chain, and guarantee child safeguarding. Specifically, IKEA works with an affiliate of Save the Children "which works with companies to address child rights issues in supply chains" (IKEA Sustainability Report FY22, p. 43) to identify potential negative impacts on children rights who work in the lower tiers of its supply chain. Through the IWAY audits, IKEA can verify if their suppliers employ child labor.

Moreover, the code of conduct IWAY works to reach SDG 8 and ensures decent and meaningful work. In this regard, IKEA has enlarged the IWAY system by creating the new "IWAY Digital Platform Work Section" and imposing supplier to conform to new requirements regarding minimum social and working conditions for digital platform workers who act for, or on behalf of, the Swedish MNE.

Legislation around labour conditions and social protection for digital platform workers remains lacking in most countries (. . .) our aim is to have a dialogue around the social and working conditions of platform workers, take learnings from implementing the section requirements in our value chain. . . (IKEA Sustainability Report FY22, p. 49)

Through the implementation of IWAY, IKEA unveils its commitment to environmental issues and to the achievement of several SDGs related to the environment. Specifically, it contributes positively to SDG 15 by sourcing wood, cotton, food, and other materials from sustainable sources. For instance, by imposing environmental standards on suppliers in the Forestry Section of IWAY, IKEA reported that more than 98% of the wood used in its supply chain in 2020 was FSC-certified or recycled (IKEA Sustainability Report FY20, p. 44).

4.2 IKEA as a Social Actor in Promoting Sustainability

IKEA has engaged in several partnerships with social businesses and civil society organizations that increasingly advocate concern for environmental and social issues, particularly in developing countries.

I think that what we can expect from brands like IKEA is to lead their industry through advocacy and collaboration. . . not only their own company (Head of Sustainability Innovation, in INGKA Group Sustainability)

The global Swedish retailer designs three types of partnerships, i.e., "Developing product," "Accelerating for impact," and "Local services" (IKEA, n.d.-c). IKEA establishes "Developing product" partnerships with social businesses, "Accelerating for impact" partnerships with civil society organizations, and "Local services" partnerships with local social businesses and civil society organizations.

Developing product partnerships aim to create social impact products through social entrepreneurship. Social businesses differentiate from regular IKEA suppliers because they integrate the business goal with the social one and create working opportunities for marginalized and vulnerable people that IKEA would not reach through its regular value chain. For instance, the partnership with the nonprofit

organization “Jordan River Foundation” has given jobs to around 250 refugee women and local women in Jordan, and around 1200 family members are positively impacted (IKEA, n.d.-c). In doing so, IKEA is capable of addressing other SDGs such as SDG 1 “No poverty” and SDG 2 “Zero hunger.” Additionally, IKEA strategically selects social business partners by evaluating if the social goals of its partners are aligned with IKEA’s business goals and not just for philanthropy reasons:

When entering a relationship with IKEA, the social business should be aware that IKEA is looking for volume and to scale up the production in a way that is beneficial from a people, planet and cost perspective (Guide—Developing and collaborating with social businesses connected to the IKEA value chain)

Accelerating for impact partnerships establish plans of action with civil society organizations and IKEA co-workers to support their expansion and reach a bigger social change. For instance, the Swedish retailer is among the founding members of the Forest Stewardship Council (Rangan et al., 2014). The Forest Stewardship Council certification programs constitute civil society’s efforts that support MNEs in choosing sustainable sources for their products and work toward the 2030 Agenda, specifically to address SDGs as SDG 12 “Responsible consumption and production,” SDG 13 “Climate action,” SDG 14 “Life below water,” and SDG 15 “Life on land.”

Nowadays, IKEA actively participates in the Forest Stewardship Council chamber to certify sustainable sourcing of raw materials, renewable energy sources, and responsible forestry. As a member of the Forest Stewardship Council, IKEA is seen as a trusted MNE by the end-user market and acquires authority in the elaboration of certification and standards schemes for being forest positive.

By partnering with a certification programme, we have full trust that our suppliers doing the sourcing and the whole supply chain is following the standards that are set up (IKEA, n.d.-e)

The Forest Stewardship Council’s members gain increasing legitimacy and reflect a concept of *participatory inclusiveness* by promoting active and collaborative dialogues with social businesses and local communities and working together for sustainable solutions (Klooster, 2006, 2010). In this regard, Mena and Palazzo (2012) argue that the Forest Stewardship Council provides MNEs with both input and output legitimacy, which means that its certification and standards schemes are considered credible and effective and constitute a set of codified knowledge and information on social and environmental issues that are complementary tools to wholly corporate codes of conduct (Cashore, 2002).

Lastly, local service partnerships consist of collaborative agreements established between IKEA franchisees and local social businesses and civil society organizations. The goals underlying these partnerships vary according to the local market, as IKEA wants to offer customized products and services that do not compromise local communities and their social values.

Hence, as a social actor, IKEA works to define sustainable goals at a global level by collaborating with well-established civil society organizations and taking part in decision-making processes to set sustainability standards (e.g., Forest Stewardship

Council and its chamber system) and at a local level by connecting IKEA's business with those of social businesses (e.g., Jordan River Foundation) that, operating locally, support the MNE to create new opportunities to address the social and environmental challenges faced by local communities.

4.3 IKEA as a Political Actor in Promoting Sustainability

Nowadays, MNEs influence and favor governments' sustainability actions in various ways, e.g., becoming their partners, lobbying, controlling regulatory agencies, or through campaign funding. Their collaboration with public actors represents an essential piece of the entire puzzle toward building a more sustainable world and supporting governments by providing new sustainable solutions to collective problems in their communities, offering global public goods, and establishing sustainability rules (Scherer et al., 2014; Scherer & Palazzo, 2011).

This is a problem for which you need good government policy and incentives (...) you need public capital to help de-risk some blended finance especially in the poorer developing countries where actual private struggles to get the energy transition. The good news is that it's a solvable problem (...) we have a full suite of solutions and governments can help in innovation... (But the only) governments can take many years and that can be the death of an entrepreneur and the death of a technology (Chief Sustainability Officer, IKEA)

Operating in more than 50 countries worldwide, IKEA is forced to obey a multitude of laws and regulations, recognize political frameworks, and handle institutional differences. The Swedish MNE has proved to prompt active political intervention for more incisive regulation of issues connected to climate action and clean energy, respectively, SDG 7 and SDG 13.

Before the elaboration of the 2030 Agenda, a coalition of business leaders coordinated by Ceres and involving IKEA, with the name of BICEP (Business for Innovative Climate and Energy Policy), lobbied the US government in 2008 to require regulation to curb climate change (The Guardian, 2021). This project is classified as a public policy that demands policymakers to work to create progressive climate change legislation.

With interventions of this type, today IKEA addresses SDG 7 "Affordable and clean energy" and SDG 13 "Climate action." Investments in renewable energy and the use of electric vehicles for in-home furniture deliveries represent actions that IKEA has carried out to translate formal policies into practices. In 2019, IKEA invested 200 million euros to speed up action to become climate positive by 2030, by focusing on two portfolios—the first aims to use 100% renewable energy and the second invests in projects for reforestation and responsible forest management (IKEA, n.d.-e).

At IKEA US, we believe that businesses, governments, and the public alike must work together to address the existential threat of climate change and create a better future for all. That is why we urge Congress to include robust funding for strong climate measures as it considers the Build Back Better Act. We at IKEA understand that this will require sacrifices

to make a positive difference, and we are committed to continuing to do our part to mitigate climate change (IKEA US President)

In 2020, IKEA advanced its commitment to climate action by signing “Uniting business and governments to recover better” (IKEA, n.d.-f). With this climate advocacy effort, IKEA joined 155 businesses in the UN-backed statement to ask governments for a resilient, zero-carbon economy and positive recovery. IKEA is making many efforts to address the aim of the UN-backed statement and become climate positive and circular by 2030. Among these, a key initiative consists of shifting transportation from road to intermodal.¹ In 2022, by collaborating with the transport service provider KLOG, the logistics service provider CFL multimodal, and the fashion retailer Inditex, IKEA replaced 4500 trucks with the block train and reduced CO₂ emissions by 5100 tons per year (IKEA, n.d.-f) on the Poland-Spain-Poland corridor. In doing so, it alters the way through which the transport industry works, increases the intermodal share in the European railway network, and influences political decisions to launch rail investment. Indeed, fostering the railway sector is part of one of the goals of the European Green Deal (European Union Agency for Railways, 2020).

Therefore, taking part in private–public initiatives is a clear sign of how MNEs, like IKEA, are proactive and pressure governments to recognize their responsibility in sustainability challenges and demand more actions and regulatory efforts to reduce the impact of climate and humanitarian crises on economies and financial markets to favor the transition toward a sustainable planet.

4.4 The Sustainability Work of the IKEA Foundation: The Interplay of the Economic, Social, and Political Roles

In 2009, IKEA expanded its scope to include the new mission “to improve the lives of vulnerable children by enabling their families to create sustainable livelihoods, and fight and cope with climate change” through the IKEA Foundation (IKEA, n.d.-b). In this way, IKEA carries out social and environmental actions and spends many efforts to reach SDG 13 “Climate action.”

IKEA Foundation is founded by the proprietor of IKEA, Ingvar Kamprad, and it was born to develop interior design and architecture but then changed its mission to social and environmental issues. IKEA Foundation builds organizational settings involving actors “who know the most about the areas we want to support” and provides them with the conditions to “live up to the standards that we are promoting” (The way we work—IKEA, n.d.-b).

Sustainability goals and programs created by IKEA Foundation are designed in close collaboration with a multitude of actors, among these, some of the most

¹Intermodal means that the longest part of the transportation distance is done by rail, inland waterways, or shortsea and that the shorter distances are carried out by road (IKEA, n.d.-g).

important NGOs (e.g., Save the Children), nonprofit organizations (e.g., Ceres, 2022), and government agencies (e.g., US Agency for International Development). IKEA foundation's commitment consists in working with "local and national governments to ensure sustainability and help people help themselves to a better life" (IKEA, n.d.-b). It requires societies to change cultural values and social beliefs "about what's acceptable and what's possible" (Molly Fannon at UN Live for "Global We for Climate Action" supported by IKEA Foundation).

Through IKEA Foundation, IKEA builds organizational settings that bridge economic, social, and political roles and their interplay and supports a change for sustainability both at global and local levels.

As well as supporting green entrepreneurs to form and grow successful businesses, we also invest in programmes that create conditions in which they can thrive. This means working with governments, business associations and cooperatives, sharing knowledge and bringing together like-minded organisations to achieve greater results (Employment & Entrepreneurship, IKEA Foundation)

A successful attempt of bridging multiple actors to set a common plan and act toward the 2030 Agenda was the recent COP27 summit where the IKEA Foundation "(brought) together business and philanthropy to fight climate change" (IKEA, n.d.-b). Specifically, IKEA hosted 20 representatives among businesses, policymakers, and civil society groups to discuss at a roundtable and talk about the necessity to invest in infrastructure to advance new technologies for the reduction of global warming. Building hydrogen fueling stations and charging stations, facilitating firms' finance access, and providing climate-friendly regulation are all examples of how public actors are key players to support private actors in facing the climate crisis.

Therefore, the Swedish MNE, through the IKEA Foundation, acts in direct collaboration with other businesses, public actors, and civil society organizations by joining them in specific initiatives toward sustainability and setting common plans, sharing opinions and expertise. The IKEA Foundation allows IKEA to perform a bridging institutional role.

To offer a fine-grained understanding of IKEA's actions toward sustainability issues and its multiple roles, we illustrate our case study in a graphical representation (Fig. 1).

5 Discussion

In line with the 2030 Agenda and the 17th Sustainable Development Goal ("Partnerships for the goals"), national governments delegate part of their control and regulatory functions and decentralize their power leaving room for negotiation and persuasion in a collaborative climate with private actors (Mayer & Phillips, 2017; Rahim, 2017). When public actors, civil society organizations, and businesses are

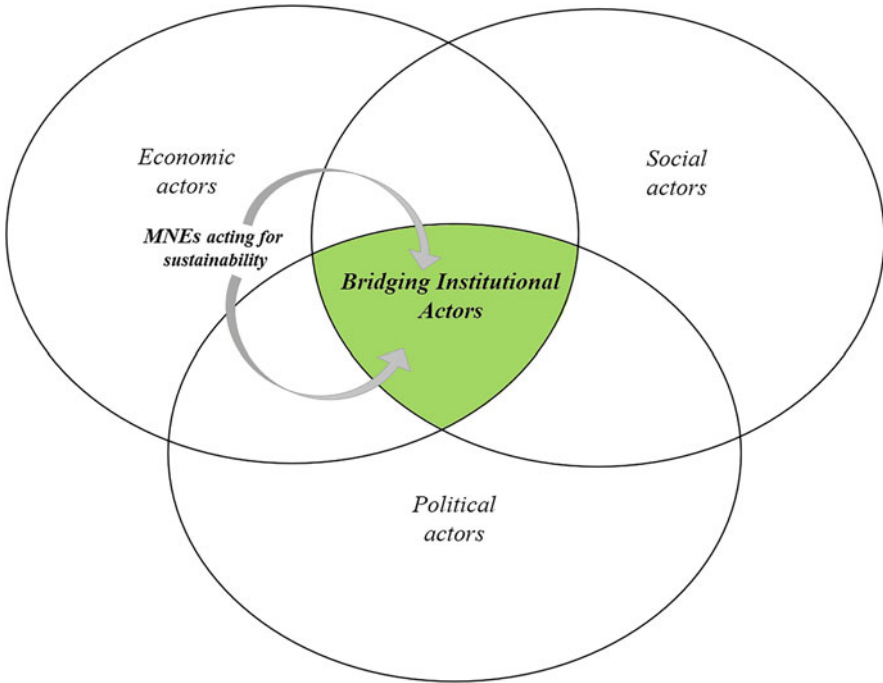


Fig. 1 The conceptual framework of MNEs' roles for sustainability (the authors)

embedded in organizational settings for sustainability, they set conditions to prompt a change toward sustainability.

First of all, our analysis of IKEA shows how MNEs perform multiple roles and involve different actors to define sustainability goals. However, institutional logics informing the roles that MNEs play can be very different since they represent “the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality” (Thornton & Ocasio, 1999, p. 804). Considering our study, we argue that, when MNEs activate collaborations with public actors, civil society organizations, and businesses to define sustainability goals, MNEs perform a *bridging institutional role*. MNEs build new organizational settings and combine different institutional logics (Tracey et al., 2011). By analyzing the IKEA case, new insights are unveiled on this potential bridging institutional role that, entrusted to MNEs, intersects economic, social, and political roles.

I would say it's about accepting and acknowledging that business does not exist in a closed world, in an ecosystem and so on. . .the license to operate is dependent on this complex trust building with customers, co-workers, with society and shareholders (IKEA President)

As economic actors promoting sustainability, MNEs impose their suppliers, geographically dispersed, to be conformant to sustainability requirements by employing

corporate codes of conduct through which they monitor suppliers' practices, evaluate, and audit their sustainability performances, certify their products, and ensure positive incentives to reduce the incidence of suppliers' opportunism and potential negative impact on the MNE's value chain (Andersen & Skjoett-Larsen, 2009; Yu, 2008).

As social actors promoting sustainability, MNEs work with NGOs, not-for-profit organizations, and other social businesses to set standards and soft laws and operate with local communities. By setting partnerships with local businesses and organizations, IKEA creates a social change in local communities and affects the way social issues are addressed globally. In doing so, MNEs are demanded "to temper (their) power and influence by recognizing and responding to local concerns in the pursuit of (their) own objectives" (Bird & Smucker, 2007, p. 1) and find common ground between global sustainability rules and local needs of host countries where they operate (Bird & Smucker, 2007). On the one hand, NGOs and the entire civil society prove regulatory efforts that have the advantage of allowing a more timely definition of rules relative to formal legal systems and are enforced chiefly through reputation and peer pressure (Kourula & Laasonen, 2010; Laasonen et al., 2012; Vogel, 2008). On the other hand, as social actors, MNEs employ resources and capabilities to create opportunities to reduce poverty and empower local employees. In doing so, they go beyond the mono-dimensional objective of making a profit and pursue social change (Desa, 2012; Di Domenico et al., 2010; Peredo & McLean, 2006). Hence, civil society organizations together with businesses endow local communities with financial, technical, and social assistance to directly involve them in creating and adopting sustainable solutions and generating positive change (Lumpkin & Bacq, 2019).

Finally, as political actors promoting sustainability, MNEs set the "rules of the game" to ensure legal and social order (North, 1990) and reduce the level of inequality and corruption. MNEs tend to play this role especially in those countries where governments show a scarce commitment to enacting compulsory sustainability legislation (i.e., hard laws). For instance, IKEA urges policymakers to provide national plans and calls on them to align policies and recovery plans to bold climate action (Uniting Business and Governments to Recover Better—United Nations Global Compact, n.d.). Extant research (Gugler & Shi, 2009; Lin-Hi & Blumberg, 2017; Mayer & Gereffi, 2010; Parmigiani & Rivera-Santos, 2015; Scherer et al., 2014) contests the absence of coordinated public interventions in the field of sustainability and talks about "public governance deficit, institutional voids, public regulatory gap." Nevertheless, some notable exceptions need to be considered, namely the Montreal Protocol, the Kyoto Protocol, and the Paris Agreement. These global agreements represent the shift, required by sustainability challenges, from public national governance to a global one.² Public actors may play the role of

²Moved by a logic of deliberative democracy national governments collaborate in global governance settings (e.g., United Nations) to find a common consensus in the decision-making processes for the reduction of climate change impact, pursuing social and environmental issues and

“intentional architects” that facilitate the building of new organizational settings in which MNEs with political authority define sustainability goals, bridge multiple roles, and combine different institutional logics (Dauvergne & Lister, 2012; Scherer & Palazzo, 2011; Tracey et al., 2011).

Drawing upon the findings of the IKEA case study, we also build a conceptual framework that illustrates the multiple roles and their potential intersection under the name of *bridging institutional role*. Bridging institutional role combines “aspects of established institutional logics and their associated practices” to create new organizational forms (Tracey et al., 2011, p. 60). MNEs, as bridging institutional actors, combine economic, social, and political roles by reuniting businesses, civil society organizations, and public actors in organizational settings established to define sustainability goals and guide change toward a sustainable planet.

Therefore, for each role of MNEs, we identify actors and institutional logics by which they are moved and mechanisms they employ to define sustainability goals. We reveal that *bridging institutional actors* may represent a visionary way to work at both global and local levels and create a change to influence the way sustainability issues are differently addressed by economic, social, and political actors. These roles leverage different mechanisms and institutional logics. Specifically, MNEs are demanded to reduce the dissonance between the institutional logics that guide actors operating in different country contexts (Kostova, 1999; Regné & Edman, 2014; Streeck & Thelen, 2005). Friedland and Alford (1991) acknowledge that institutional logics can develop at multiple levels of analysis and different institutional logics can co-exist and interact with each other (Thornton & Ocasio, 2008). This is what occurs when MNEs need to ensure their compliance with sustainability in all countries where they operate. On the one hand, given the multifaceted nature of institutional contexts, MNEs need to involve governments, businesses, and societies to deal with sustainability challenges (Montiel et al., 2021). On the other hand, MNEs provide the impetus for a sustainability change when they combine the different institutional logics of public actors, civil society organizations, and businesses and require them to abandon existing practices and cognitive schemas in favor of the new sustainability ones that they are championing (Doh et al., 2019; Zietsma & Lawrence, 2010).

Finally, we evoke the idea of institutional entrepreneurship. Institutional entrepreneurship research pays great attention to exploring under which conditions MNEs can shape and alter institutions across countries and act as institutional makers (Hall & Thelen, 2009; Hardy & Maguire, 2008; Streeck & Thelen, 2005). For instance, Fortwengel and Jackson (2016) entrust MNEs with the role of institutional entrepreneurs that create networks with local actors, transfer apprenticeship practices from Germany to the USA, and lead institutional change in the labor market of the host country. We borrow this conceptualization of institutional entrepreneurship to

achievement of a more sustainable planet (Fung, 2003; Smith, 2003). The idea of the deliberative interpretation of democracy sets the premises to enlarge the participation in organizational settings for sustainability and involve other actors besides the public ones (Reinecke & Donaghey, 2021).

Table 2 The multiple roles of MNEs emerging in IKEA case

| Role | Actors | Mechanisms employed for sustainability | Mechanisms employed by IKEA |
|-------------------------------|--|---|--|
| Economic actors | MNEs and actors belong to their supply chains | Codes of conduct Corporate standards | IWAY Code of Conduct |
| Social actors | NGOs Not-for-profit organizations Social businesses Social service organizations | Civil standards Soft laws Programs with local communities | Partnerships: – Developing product – Accelerating for impact – Local services |
| Political actor | National governments Regional institutions Local institutions Inter-governmental organizations Government agencies | Hard laws International treaties | BICEP Public Policy UN-backed statement |
| Bridging institutional actors | Actors bridging businesses, social and public actors with different logics | Goals and programs set by private–public partnerships | IKEA Foundation |

show how MNEs collaborate with multiple actors, engage in forms of collective agency, and create sustainable change by altering institutions across countries (Doh et al., 2019; Fortwengel & Jackson, 2016; Greenwood & Suddaby, 2006) (Table 2).

6 Conclusions

This chapter represents the way through which MNEs, by interacting with institutions and societies, shape their economic, social, and political roles. While a clear picture of these roles and their interplay remains a challenge to interpret how MNEs deal with sustainability goals, we conduct a qualitative analysis of IKEA and illustrate the role it plays as a *bridging institutional actor*. In doing so, this chapter offers two main contributions. First, it contributes to international business research because it provides a deeper understanding of the ways through which MNEs coordinate public actors, civil society organizations, and businesses and collaborate with them to drive global and local sustainable impact. For instance, MNEs can benefit from autonomous entities (e.g., foundations) that, by employing business’s proceeds and remaining outside the market dynamics and far from shareholders’ pressures, can make a great commitment toward sustainability. Therefore, this chapter extends the knowledge about how MNEs may perform multiple roles, and it suggests that economic, social, and political roles are intertwined, and their intersection can provide new opportunities to promote sustainable development.

Second, by analyzing and discussing the IKEA case, we shed light on intriguing insights into their role of bridging institutional actors as a construct across international business and social issues in management studies. It partially echoes the definition of bridging institutional entrepreneurship because it considers the importance of multiple roles of MNEs without a focus on opportunity discovery and/or recognition (Tracey et al., 2011). On the one hand, by playing the role of a bridging institutional actor, MNEs provide innovative solutions for sustainability by employing capabilities and resources of all involved actors. For instance, public actors provide authority and public legitimacy, MNEs offer financial and technical capabilities, and civil society organizations confer scientific expertise and deep experience in working with local communities (Doh et al., 2019). On the other hand, the bridging institutional role allows MNEs to reconcile the different institutional logics, diverging interests, and independent efforts of economic, social, and political roles and remove some of the constraints facing each of them. For instance, governments suffer from slow bureaucracy, and civil society organizations lack the policymaking capability and managerial know-how, while MNEs possess a shallow knowledge of local contexts and societies' needs in countries where they operate (Doh et al., 2019; Van Aalst et al., 2008).

Notwithstanding these contributions, this chapter presents some limitations that suggest the groundwork for future research advancements. First, the chapter relies on data gathered from online sources, while fieldwork could provide more fine-grained context-specific data and capture a deeper understanding of the phenomenon. Although fieldwork could be the most preferred approach to carry out a case study, implementing it requires a long-time horizon: interviews and/or observations entail a lot of time and effort, access to the organization has to be negotiated, and large quantities of data need to be analyzed and coded.

Second, we study how MNEs define sustainability goals; however, it would be interesting to consider some specific sets of sustainability goals underlying environmental or social issues to investigate the ways through which MNEs deal with environmental problems and social concerns, the specific actors with whom they collaborate, and organizational settings that need to be designated according to the different reachable goals.

Lastly, our case study offers a remarkable insight about how one of the largest and most famous MNEs that actively deals with sustainability challenges and defines sustainability goals by performing multiple roles; however, our research could be extended by comparing multiple case studies on other MNEs and their sustainability strategies such as exploring the entire retail sector. In this regard, we call for papers that design a benchmark to be drawn on industry practices to unveil how a single firm can offer a multifaced contribution toward sustainability.

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Sustainable Development Goals and the Mining Industry



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Abstract Sustainability in the mining industry has historically been a matter of controversy. The nature of the industry is such that disruption to the environment is inevitable and working conditions are often hard. Over the years, significant progress has been made, as major mining companies started taking seriously into account their social and environmental performance, with the aim of mitigating their negative impacts and enhancing their positive ones. In this context, they promote, both directly and indirectly, the 17 United Nations Sustainable Development Goals (SDGs).

This chapter aims to identify which are the most commonly reported sustainability material topics in the mining sector, and whether they sufficiently address the SDGs. This is achieved by studying the sustainability reports of 40 major mining companies in Europe and North America. We conclude that the mining industry focuses on SDGs 3 “Good health and well-being,” 1 “No poverty,” and 8 “Decent work and economic growth” and pays less attention to environmental SDGs.

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1 Introduction

Following the unmet eight Millennium Goals released in 2000, which set the overly optimistic—for some unrealistic—goal to be achieved by 2030, the United Nations presented in 2015 the 17 Sustainable Development Goals (SDGs). The SDGs were an outcome of a long engagement with various stakeholders, including governments, companies, academia, and civil society. It is now evident that for global challenges to be tackled all stakeholders are required to be on the same page and act together, toward the same direction, for a better world (Haski-Leventhal, 2022). Governments alone, even united in times of peace, cannot resolve the complex issues our world is facing, and each stakeholder group must play their part. The United Nations recognize the role of multinational companies as an important part of this puzzle.

The role multinational corporations (MNCs) can play toward the achievement of the SDGs is a matter posing great challenges and worth being further explored, even if the literature has already covered some of its aspects (Kolk et al., 2017). In terms of international business practices, according to Van Zanten and Van Tulder (2018), MNCs tend to engage more with SDG targets that are feasible within their own value chain operations and focus more on avoiding doing harm, or minimizing it, than actively promoting the SDGs agenda. As Mio et al. (2020) describe, the balance and integration of the business process with economic and social sustainability, in the context of SDGs and in relation to specific industries, is a topic that has not been adequately investigated in the literature. The mining industry, despite its importance, is at risk of falling behind in sustainability considerations (Tost et al., 2018). Furthermore, the issue of corporate responsibility in the mining industry is unresearched and more multiple case studies are needed (Rodrigues et al., 2022; Rodrigues & Mendes, 2018).

The SDGs are closely related to all concepts and theories that describe the companies' efforts to become more responsible and accountable. Sustainability and corporate social responsibility are two different terms that often get confused, particularly when discussing the SDGs. They may be similar in context, but should not be seen as synonyms. CSR actions, initiatives, or programs, which also fall under the corporate responsibility category, may create value in the short term, but do not necessarily sustain the viability of society or the environment in the long term. Bansal and DesJardine (2014) provide a good example in this respect; they describe how mining companies can create shared value by investing in building local schools or hospitals. However, these responsible actions may not necessarily be sustainable if the surrounding natural environment is significantly degraded, and the lifestyles of local communities are disrupted.

Nonetheless, it is argued that the “broad” definition of corporate sustainability and CSR refers to “company activities – voluntary by definition – demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders” (Van Marrewijk, 2003). Concepts such as corporate social responsibility, sustainability, corporate citizenship, and stakeholder theory all fall under the corporate responsibility (CR) umbrella term, despite their different

origins, approaches, and evolution over time. As Montiel (2008) demonstrates, there is no clear distinction between the two terms and companies use both the terms “CSR” and “corporate sustainability” interchangeably in their reports. Therefore, for the purposes of this chapter, which focuses on reporting, the generic term “corporate responsibility” will be used to understand how companies integrate sustainability concerns in their reports.

In the above context, one of the ways to understand and monitor MNCs progress toward SDGs agenda is the non-financial information that the companies disclose publicly through their corporate responsibility reports (often found as sustainability report, sustainable development report, corporate social responsibility report, citizenship report). A corporate responsibility report discloses information regarding a company’s economic, social, and environmental performance. It highlights the company’s leadership vision on sustainability and presents specific key performance indicators (KPIs) related to its most material impacts. According to the most profound sustainability reporting standard, namely Global Reporting Initiative (GRI), the objective of corporate responsibility reporting using GRI “is to provide transparency on how a company contributes or aims to contribute to sustainable development” (GRI, 2023).

It should be made clear from the outset that preparing and disclosing a corporate responsibility report does not ensure in any way a company’s positive contribution toward sustainable development in the long run. Nonetheless, the reports present particular initiatives, KPIs, and management approaches of a company’s impacts. Corporate responsibility reports are often accused of serving greenwashing (see Laufer, 2003; Mahoney et al., 2013; Zharfpeykan, 2021). Even so, they still provide information regarding their impacts, regardless of whether they emphasize their positive impacts or neglect to include significant negative ones. Since MNCs self-disclose their own sustainability performance, corporate responsibility reports are the main data providers in order to understand and monitor MNCs progress toward the SDGs agenda.

This chapter focuses on the mining industry. The key question it attempts to answer is: which sustainability material topics do mining companies report and whether they sufficiently address the SDGs, with regard to their prominent social and environmental impacts?

To do so, we attempt to identify the most material sustainability topics in the mining sector, by studying 20 sustainability reports in Europe and 20 sustainability reports in North America (Canada and USA). Firstly, our work identifies the 10 most common material topics for mining companies and identifies similarities and differences between European and North American enterprises. Secondly, it builds upon these material topics and investigates any possible connections to the SDGs. The rest of the chapter is organized as follows: Sect. 2 briefly discusses the significance of international mining companies, the mining sector and CSR reporting in Europe and North America, and the literature on corporate responsibility and reporting in the mining industry. Section 3 presents the materials and methods used in this study. Section 4 discusses the findings, and Sect. 5 concludes with some final remarks. The chapter aims not only to fill the gap in the literature but also to provide useful insights

to academic scholars, consultants, auditors, and mining professionals regarding the mining industry and its capacity to enhance SDGs.

2 Corporate Responsibility in the Mining Sector: A Review of the Literature

Historically, the mining industry is one of the oldest documented kinds of human activity (Dubiński, 2013). The industry of minerals is virtually everywhere around us and impacts nearly every other sector of the economy. Mining utilizes raw materials to create different products and materials which, in turn, are used in different industrial applications, to produce various consumer goods. All these products have historically conditioned the economic and civilizational development of our world. At the same time, the mining industry uses over 8% of the world's total energy each year, while it also contributes to 10% of the annual greenhouse gas (GHG) emissions (Smith & Wentworth, 2022). In addition, mining can have adverse impacts on the health and safety of workers, the natural environment, and the lives of local communities (Vivoda & Kemp, 2019). Adopting and following best available practices and advanced technology in mining can reduce both the impacts and the risk of accidental failure. As Smith and Wentworth (2022) point out, even though only about 0.02% of the Earth's surface is used for mining, this is only part of a mine's true "footprint." Mines open the road for other industries to follow, which may result in massive-scale landscape change and biodiversity losses.

Given the impact of mining on people and the environment, sustainability in the mining industry is a matter that has been discussed in the extant literature. Sustainability influences every part of modern mining, from discovery and operations to closure. Mining companies must simultaneously focus on four topics: people, environment, economic performance, and stakeholders. This way the multiple objectives of social well-being and equality, environmental protection, and economic development can all be met (Smith & Wentworth, 2022). The Council of Mining and Metals (ICMM) supports sustainable development and its work contributed to major institutional changes, as well as to a better understanding of social and environmental impacts and increased commitment to corporate responsibility on behalf of mining companies. In addition, Vintró and Comajuncosa (2010) emphasize the need for mining companies to assume responsibilities in local and national development. The authors describe how a concern centered on a commitment to the environment has evolved into a commitment to the community of the region where each company carries out its operations. The mining activities and the overall operations of mining companies should aim to satisfy and enhance society in general.

Laurence (2011) suggests that "a sustainable mine is one that is safe, demonstrates leading practice in environmental management and community engagement, is economically robust and which, very importantly, efficiently uses the mineral

resource.” He also argues that if these principles are followed, the mine condition will be optimized, the community benefits will be maximized, and the mining company will perform better and develop a better social image. According to Lins and Horwitz (2007), in order for a mining company to be responsible it must continuously commit to behaving in an ethical manner and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large. To achieve these goals, mining companies must incorporate environmental and social concerns in every aspect of their operation. In this respect, Shen et al. (2015) investigate the adoption of green supply chain management in the mining industry and claim that enhancements should be made to improve sustainability performance.

Dubiński (2013) highlights the fact that, over the past few decades, there has been dynamic economic development and changes in many countries, and more particularly developing countries. This can be attributed to the increasing demand for mineral resources, across the world and the development of new technologies, which require minerals. Increasing demand must be dealt with as a critical issue, as it is directly connected to the security of raw materials and raises concerns about whether the mining companies are going to be able to operate in a sustainable manner. Rodrigues and Mendes (2018) similarly point out that the constant demand for minerals, driven by consumerism, could result in increased pressures on natural environment and local communities.

At the same time, some researchers question the approach of the mining industry to sustainability. Kirsch (2010) claims that over the years the concept of sustainability in the mining sector has undergone a progressive redefinition, “emptying out the meaning” of the term, notably its original reference to ecology and the environment. The mining industry uses the phrase sustainable development primarily to refer to its positive economic variables and development, rather than its environmental impacts. He argues that “strategic deployment of the term sustainability provides symbolic capital for a mining company whose practices are anything but environmentally sustainable” (p. 91). Rodrigues and Mendes (2018) suggest that to ensure a practical feasibility, a company’s business model must be based on the whole value chain and not only on the economic dimension emphasizing the role of close collaboration with all stakeholders. They furthermore emphasize that it is important to reconsider corporate responsibility, since one size does not fit all, and customized corporate responsibility solutions should be developed according to the social and political context of each country.

Corporate responsibility reporting in the mining sector is also a matter that attracted the attention of scholars in the last few decades. Perez and Sanchez (2009) examined reports by four major mining companies and concluded that there is a clear evolution in the comprehensiveness and depth of the reports. On the contrary, in another study based on data gathered from reports, Jenkins (2004) argued that mining companies need to better understand their responsibility toward the environment and the community. Ranängen and Lindman (2017) surveyed sustainability reports and initiatives in the Nordic mining industry and proposed sustainability criteria and guidelines to be followed by the mining sector. Focusing

on corporate responsibility communication in social networks, Pons et al. (2021) noted that the matter is of growing public interest and relative disclosures should improve.

Limited literature is available on how the mining industry incorporates the SDGs. Monteiro et al. (2019) examined the alignment of mining industries practices with the SDGs in some cases from Brazil and found that mining industries contribute to the generation of jobs and income in the regions where they operate (SDGs 1, 2 and 8). They also promote improvements to the local community regarding the site infrastructure (SDG 9). However, the authors also noticed shortcomings such as the low representation of women in the workforce (SDG 5), lack of education opportunities for both employees and the community (SDG 4), and the absence of public hearings, which compromises the transparency in data disclosure (SDG 16). Furthermore, mining industries often do not commit to restoring the mined area, thus negatively affecting SDGs 2, 10, 13, and 15. The authors concluded that: “while the industries contribute to the generation of jobs and improvements in the local community, more attention must be given to gender equality and environmental issues.”

Moomen et al. (2019) analyzed the application of geospatial technology in the mining industry toward the achievement of the SDGs and found it inadequate. Endl et al. (2021) investigated how innovation and new technologies in the mining sector could contribute to the achievement of SDGs in Europe. Hatayama (2022) analyzed reports by 61 metal companies and found that they tend to place more attention on SDGs 8 (Decent work and economic growth), 3 (Good health and well-being), and 12 (Responsible consumption and production), although there are considerable differences between different types of metal companies. Ivic et al. (2021) also investigated the sustainability reports of 10 European mining companies and found that there is a lack of comprehensiveness with regard to the companies' contribution to the SDGs. Finally, in an empirical study which examined experts' opinions to prioritize SDGs for the mining industry, Deveci et al. (2022) concluded that SDG 8 “Decent work and economic growth” is the most important goal for them.

All in all, extant literature has demonstrated that, although the mining industry has a significant impact on people and the environment, it tends to focus predominantly on its positive impacts for economic performance, along with issues of health and safety and local communities. Dynamic development and constant demand for minerals will further increase the pressure for more sustainable performance. Few studies have focused on sustainability reporting and found that, although reports are improving, the industry needs a better understanding of their responsibility. The interference between sustainability reporting and the SDGs in the mining industry has been equally under-researched, especially if one takes into account that reporting standards and approaches have been dramatically modified since the introduction of the SDGs.

3 Methodology

3.1 Background

In this section, we describe why it is important to investigate the selected research topic and how we attempted to do so. Laurence (2011) explains that views on sustainable development in the mining context seem to be polarized. The author argues that even though mining and sustainability seem to be incompatible, the terms are not necessarily opposites. According to Hilson and Murck (2000, p. 227): “over time several academics, industrialists and government employees have given their personal viewpoints on the applicability of sustainable development to mining.” Therefore, the authors claim that the body of literature on mining and sustainability involves a different interpretation. Despite the considerable volume of literature and research looking into this subject, it is still not very clear how exactly mining companies could contribute to sustainable development and be socially and environmentally responsible. There remains misunderstanding and hesitancy for mining companies to embrace sustainability in their operations and to fully understand their obligations for action and reporting.

Heenetigala et al. (2015, p. 15) highlight the importance of disclosing information that can be comparable. The authors claim that “Reporting of disclosure of information are not meaningful unless they are comparable.” This is important to enable companies to respond to challenges related to different sustainability issues and the variety of stakeholder concerns. Smith and Wentworth (2022) discuss another controversial topic related to reporting: the gaps that might occur in the transparency of reporting. According to the authors: “The aggregation of data to company-level in sustainability reporting limits scrutiny, some metrics are under-reported, and there is a lack of transparency and consistency on measurement methodologies.” The authors also highlight infrequent and non-standardized reporting of Scope 3 GHG emissions (which may be particularly large for mining companies), as well as tendency of reporting on energy toward discussing initiatives in research and development, rather than implementation. Goel et al. (2020) point out the fact that corporate responsibility reports follow no specific format and can be quite heavy in infographics and text. When reading such a report, spotting and extracting pieces of information can be very time-consuming and daunting. Such reports are also very large in volume, making it even harder to navigate around them while also increasing the chances of errors.

Rodrigues and Mendes (2018) identify the need for more research on CSR reporting in the mining industry, to investigate the credibility and transparency of the reports. Smith and Wentworth (2022) also point out that sustainability reporting in mining received significant criticism, despite the fact that reporting schemes, particularly GRI, are well established and widely used. In a recent literature review on corporate responsibility and the mining industry, Rodrigues et al. (2022) reveal that the majority of the literature consists of single case studies and emphasizes the need for multiple case studies and more related research.

3.2 The Importance of the Mining Industry

Investments in extractive industries require specialization in exploiting mineral endowments, entail high capital expenditures over long periods in order to reach a minimum efficiency scale, and face a considerably high risk in returns due to the volatility of international commodity prices. Casella and Formenti (2022) indicate in their analysis of the 100 largest mining companies (ranked by operating revenues in 2017–2018) that MNCs have a prominent role (68% of the sample), while domestic private (18% of the sample) and state-owned (14% of the sample) enterprises have a secondary role.

Mining foreign direct investment (FDI) was one of the top 10 industries FDI, in terms of announced international project finance deals in 2020–2022 (UNCTAD, 2023) despite the declining trend of the share of mining FDI (see Fig. 2 in the Appendix). Most metals and minerals greenfield FDI projects took place in the United States and Germany in 2020 and 2021, while most metals and minerals greenfield FDI projects originated from the United States and Canada (see GlobalData's FDI Projects Database).¹

Similarly to the role of FDI in other industries (Bitzenis & Vlachos, 2012; Vlachos & Bitzenis, 2018), mining FDI is a significant source of income, economic diversification, and technological development for host economies, particularly for middle- and low-income hosts (e.g., see Ghebrihiwet, 2019; Yang et al., 2020). The positive impact of mining FDI on host economies shall be augmented and sustained through the achievement of the 17 SDGs, set by the United Nations in 2015 (see Appendix, Table 9). The mining sector is critical for the achievement of the SDGs in view of the fact that sustainable management of the natural environment and its resources is an essential feature of the United Nations 2030 Agenda (Terama et al., 2016). At the same time, the fulfillment of the SDGs through enhanced social and environmental performance should be a priority target for mining companies because it affects their valuation and performance (Giese et al., 2019).

3.3 The Mining Industry and Sustainability Reporting in Europe and North America: Insights on the Geographical Setting of the Empirical Study

Sustainability reporting, as promoted by the GRI Standards, is a company's practice of reporting publicly on its economic, environmental, and/or social impacts, and hence its contributions—positive or negative—toward the goal of sustainable development. Sustainability reporting includes the disclosure and communication of environmental, social, and governance topics, and it is a key tool for companies to

¹ Available at <https://www.globaldata.com/data/> (accessed on 19/1/2023).

communicate their policies, their performance, and how their activities impact the environment and society.

The European Union has a comprehensive legal framework on social and environmental issues, which directly affects sustainability matters in the mining industry and includes directives on safety, industrial emissions, waste management, and human rights (Mononen et al., 2022). Given the growing demand for critical minerals indispensable for the energy transition, further awareness, discussion, and analysis are needed on the environmental and social impacts of all kinds of mining activity in Europe (Mononen et al., 2022).

Environmental, social, and governance (ESG) refers to a set of standards used by companies and investors to screen [potential investments](#), using social and environmental criteria. Most companies include ESG metrics in their corporate responsibility efforts and enhance their existing sustainability key performance indicators (KPIs) with additional ones on the same area as an outcome of ESG. ESG helps [stakeholders](#) understand how a company is prioritizing and managing its risks related to environmental, social, and governance criteria. It measures a company's impact on society, the environment, and defines how responsible and accountable that company is. ESG in Europe is currently gaining momentum, as landmark regulation on sustainability reporting and due diligence has been recently passed or is under way (Singhania & Saini, 2023), a situation which will profoundly affect the mining industry.

In the United States, several public authorities are involved in regulating the mining sector. The mining industry is of great importance and emphasis is placed on safety and accident prevention issues (Bealko et al., 2008). Sustainability reporting is not mandatory in the United States, although US companies have a very high rate of reporting and a number of recent regulatory initiatives address ESG reporting (Singhania & Saini, 2023).

Canada is a leading mining country and also an example when it comes to sustainability reporting in the mining sector (United Nations Environment Programme, 2020). Several CSR reporting initiatives have been developed for the mining industry and reporting has been on the rise; however, the introduction of standardization and external assurance is recommended in order to ensure the quality of reports (Dilling, 2016).

The mining industry is among the most prolific disclosers of social and environmental information (Jenkins, 2004). The environmental and social impacts of mining are so obvious and significant that mining companies are left with no alternative but to take action and disclose relevant information and data in their corporate responsibility reports. However, an analysis carried out by Heenetigala et al. (2015) showed the main driving factor for mining companies to report on their social and environmental impacts was either regulatory compliance or enhancement of their reputation for social responsibility in order to attract new investments and media attention. Therefore, the authors question the motivation behind CSR reporting and whether all CSR information is being reported in a meaningful way, especially related to negative impacts. Furthermore, according to Kirsch (2010), despite the fact that mining companies are reporting on their impacts, the actual impact has not been

reduced at all. The promotion of mining as being a sustainable industry makes it harder for critics of the mining industry to increase awareness of its true social and environmental negative impacts.

The above-mentioned literature emphasizes the need for improvements in sustainability reporting in the mining industry in relation to transparency, credibility, and alignment with the SDGs, as well as the necessity for more related comparative studies. The economic significance of the mining industry in the international context cannot be neglected; at the same time, momentous institutional developments on sustainability disclosures in Europe and revitalization of discourse in North America provide an interesting ground for a comparative analysis of reporting practices in the mining industry.

3.4 Methods

We reviewed 40 sustainability reports of major international mining companies—half of them (20) are European companies and the other half are North American (Canada and USA)—aiming to identify the most commonly reported material topics by mining companies (a list of the companies reviewed can be found in the Appendix, Table 10) and to examine how these material topics might relate to the achievement of SDGs.

To gather data a textual analysis was carried out without the use of any relative software. All reports were read, and a database was created manually, comprising data, tables, and graphs. Since all companies of our sample used GRI Standards they were obliged to have incorporated a “GRI table” into their reports. The GRI table indicates in which part of the report each disclosure is addressed. In particular, for the material topics, each report must include a list and/or a matrix with the most material topics, to satisfy the *GRI Disclosure 102-47: List of material topics*. Similarly, the GRI table indicates where in the report each material topic’s management approach can be found: *GRI Disclosure 103*. The GRI 103 Disclosure requires (for each material topic) the description of the company’s management approach, highlighting at least the following three elements: (a) an explanation of the material topic and its boundary, (b) the management approach and its components, and (c) an evaluation of the management approach. Based on the above, we performed a textual analysis to gather and analyze information, in order to understand and describe the context of the material topics. Moreover, in order to ensure the data accuracy and avoid any possible reporters’ oversight, we performed a search within the reports, using keywords such as material topics, materiality, and materiality analysis. The same applied for each material topic; we wanted to make sure that we understand every reference for every material topic inside each document.

In their reports, different companies may use different terminology or phraseology to describe the same material topic. Therefore, in some cases, different phrases were clustered under a common title. For instance, phrases such as climate neutrality, climate response, and GHG emissions were clustered under the topic “Climate

change.” Besides identifying the material topics in each report, we also studied the length of the reports, whether they had been externally assured, the title the companies chose to describe the report, and the reporting period.

In order to access corporate responsibility data, we conducted secondary research to the database of the most profound sustainability reporting standard, namely Global Reporting Initiative (GRI). The GRI Standards are the most widely accepted standards and also the framework most often used by regulators (United Nations Environment Programme, 2020). Access to the GRI database was open until 2021; therefore, the reviewed sustainability reports refer to the period prior to that year. In particular, we have deliberately chosen all reports in the mining sector between 2017 and 2019 in order to ensure that the companies used the 2016 updated version of the standards, which clarified and imposed the concept of materiality in reports (the concept of materiality was for the first time introduced in a previous version of GRI, namely GRI G4). According to the 2016 approach, materiality was determining the contents of each corporate responsibility report. Besides some general disclosures that were common to all reporters, each company would decide which topics are material for its business and report KPIs in relation to the specific material topics. In order to define which topics are material, each company would have to perform a materiality analysis in order to identify and prioritize the topics that reflect its “significant economic, environmental and social impacts and/or that substantively influences the assessments and decisions of stakeholders” (GRI Standards 2016).

More specifically, according to the 2016 GRI Standards guidelines, every company claiming to follow GRI when reporting on its sustainability performance had to perform a materiality analysis. The materiality analysis is an exercise that allows a company to identify—with the engagement of its stakeholders—the most material sustainability topics taking into consideration its impacts, the importance of the topics for stakeholders, and their decision making, as well as the importance for the company itself, in the context of sustainability (see, e.g., Jørgensen et al., 2022). The outcome of a materiality exercise in a company concluded with a list of material topics and the reporting company was obliged to report at least one key performance indicator (KPI) for each material topic.

We have to note that uploading the report in the GRI database was not compulsory for companies that used the GRI Standards. Thus, it is possible that there are more mining companies that used GRI reporting but had not uploaded their report to the database—even if that service was free. GRI Standards were revised in 2021, but the new standards will apply as of 2023 (GRI, 2023); consequently, no radical changes to reporting are expected between 2017 and 2022.

Upon examination of the 40 reports, a dataset comprising the topics that each mining company reported as being material for their operation was developed and analyzed. This enabled us to define the most commonly reported topics in European and North American companies and identify any trends, differences, or similarities within the data. We then examined the most common material topics for the mining industry and identified possible linkage between them and the 17 SDGs. It should be noted that, while some companies recognized the need to mention SDGs in their reports, usually this was restricted to nothing more than SDGs logo dropping,

without a specific explanation of the actual connection and the explicit strategies and KPIs to address the particular SDGs. In addition, it should be clarified that the topics in the reports were not always named in an identical manner, but we have merged topics that fell under the same category (e.g., the material topic “water availability and quality” is treated under the generic/umbrella term “water”).

4 Findings

4.1 Data Analysis: Material Topics

A list of the reviewed companies is presented in Tables 1 and 2. Table 1 includes the European companies, while Table 2 the ones in North America (NA). Tables 1 and 2 also present information about the reporting year and whether the reports were externally assured by a third independent party (who assures the data published and the methodology). In addition, Table 8 presents the connection between the most material topics of the mining sector and the SDGs.

As presented in Tables 1 and 2, in total 25 out of the 40 reports (62.5%) were externally assured, contributing to the credibility of the data presented in the sustainability reports. Within the European mining companies that rate is higher, as 15 out of the 20 reviewed companies had their reports externally assured (75%), whereas only 50% of the NA mining companies did so. This is an indication that European mining companies might be more likely to seek external assurance.

Tables 3 and 4 show the number of material topics reported by each company in Europe and North America, respectively. On average, European mining companies reported 12.75 topics as being material for them. The range was between 7 and 18 topics. Accordingly, North American mining companies reported 13.75 topics as being material, and the range was from 7 to 25 topics. We should note that the specific set of standards, namely GRI standards, do not require a minimum number of material topics to be reported. Each company places its own threshold according to the methodology that has been followed to conduct its materiality analysis.

Tables 5 and 6 present all the topics that were reported by all 40 mining companies as being material, as well as the number of times each topic appeared in the reports. Table 5 includes the European mining companies, whereas Table 6 refers to the companies based in North America. The differentiation between the two continents allows us to draw some conclusions upon comparison of the findings: the five most commonly reported topics within the European mining companies were “Employees’ health and safety,” “Local communities,” “Economic performance,” “Water,” and “Waste.” The topics of “Inclusion and diversity,” “Anti-corruption,” and “Employee relations” were reported as being material by approximately 40% of the companies.

In North America, the five most commonly reported topics were “Employees’ health and safety,” “Employment,” “Local communities,” “Water,” and “Environmental compliance.” “Business ethics” was reported as being material by 10 North

Table 1 European companies reviewed in this chapter

| A/A | Company | Country | External assurance | Reporting year |
|-----|-----------------------------|----------------|--------------------|----------------|
| 1 | Anglo American | United Kingdom | Yes | 2018 |
| 2 | ALROSA PJSC | Russia | Yes | 2017 |
| 3 | Antofagasta PLC | United Kingdom | No | 2017 |
| 4 | Boliden | Sweden | Yes | 2017 |
| 5 | Endeavour Mining | United Kingdom | No | 2018 |
| 6 | Evrax Group | Russia | Yes | 2018 |
| 7 | Glencore | Switzerland | Yes | 2018 |
| 8 | Hellas Gold | Greece | Yes | 2017 |
| 9 | Highfield Resources Ltd | Spain | No | 2018 |
| 10 | Lonmin | United Kingdom | Yes | 2018 |
| 11 | Nornickel | Russia | Yes | 2018 |
| 12 | Petra Diamonds | Jersey | Yes | 2019 |
| 13 | Polymetal International plc | United Kingdom | Yes | 2018 |
| 14 | Polyus | Russia | Yes | 2018 |
| 15 | Randgold Resources Limited | United Kingdom | Yes | 2017 |
| 16 | Rio Tinto UK | United Kingdom | Yes | 2017 |
| 17 | SUEK | Russia | No | 2017 |
| 18 | Toro Gold | United Kingdom | No | 2018 |
| 19 | Vedanta Resources | United Kingdom | Yes | 2018 |
| 20 | JSW Group | Poland | No | 2020 |

Table 2 North American companies reviewed in this chapter

| A/A | Company | Country | External assurance | Reporting year |
|-----|---------------------------|---------|--------------------|----------------|
| 1 | Alacer Gold | USA | No | 2018 |
| 2 | Avalon Advanced Materials | Canada | No | 2019 |
| 3 | B2Gold | Canada | No | 2018 |
| 4 | Capstone Mining | Canada | No | 2017 |
| 5 | Centerra Gold | Canada | No | 2017 |
| 6 | Compass Minerals | USA | Yes | 2018 |
| 7 | Dundee Precious Metals | Canada | Yes | 2018 |
| 8 | Endeavour Silver Corp. | Canada | No | 2018 |
| 9 | Fortuna Silver Mines Inc. | Canada | No | 2018 |
| 10 | Galiano Gold | Canada | Yes | 2018 |
| 11 | Goldcorp | Canada | Yes | 2017 |
| 12 | Iamgold | Canada | No | 2018 |
| 13 | Kinross Gold Corporation | Canada | No | 2017 |
| 14 | Lucara Diamond | Canada | Yes | 2017 |
| 15 | Lundin Mining | Canada | Yes | 2017 |
| 16 | Newmont Mining | USA | Yes | 2018 |
| 17 | Pan American Silver | Canada | Yes | 2017 |
| 18 | SRG Graphite | Canada | No | 2018 |
| 19 | Teck Resources | Canada | Yes | 2018 |
| 20 | The Mosaic Company | USA | Yes | 2018 |

Table 3 Number of material topics reported by each company (Europe)

| A/A | Company | Number of topics reported as being material |
|---------|-----------------------------|---|
| 1 | Anglo American | 12 |
| 2 | ALROSA PJSC | 9 |
| 3 | Antofagasta PLC | 15 |
| 4 | Boliden | 17 |
| 5 | Endeavour Mining | 13 |
| 6 | Evraz Group | 12 |
| 7 | Glencore | 10 |
| 8 | Hellas Gold | 8 |
| 9 | Highfield Resources Ltd | 13 |
| 10 | Lonmin | 7 |
| 11 | Nornickel | 18 |
| 12 | Petra Diamonds | 11 |
| 13 | Polymetal International plc | 11 |
| 14 | Polyus | 17 |
| 15 | Randgold Resources Limited | 17 |
| 16 | Rio Tinto UK | 17 |
| 17 | SUEK | 12 |
| 18 | Toro Gold | 10 |
| 19 | Vedanta Resources | 16 |
| 20 | JSW Group | 10 |
| Average | | 12.75 |

Table 4 Number of material topics reported by each company (North America)

| A/A | Company | Number of topics reported as being material |
|---------|----------------------------|---|
| 1 | Alacer Gold | 8 |
| 2 | Avalon Advanced Materials | 13 |
| 3 | B2Gold | 19 |
| 4 | Capstone Mining | 11 |
| 5 | Centerra Gold | 14 |
| 6 | Compass Minerals | 10 |
| 7 | Dundee Precious Metals | 20 |
| 8 | Endeavour Silver Corp. | 11 |
| 9 | Fortuna Silver Mines Inc. | 12 |
| 10 | Galiano Gold | 8 |
| 11 | Goldcorp | 15 |
| 12 | Iamgold | 19 |
| 13 | Kinross Gold Corporation | 25 |
| 14 | Lucara Diamond | 7 |
| 15 | Lundin Mining | 19 |
| 16 | Newmont Mining Corporation | 14 |
| 17 | Pan American Silver | 10 |
| 18 | SRG Graphite | 13 |
| 19 | Teck Resources | 10 |
| 20 | The Mosaic Company | 17 |
| Average | | 13.75 |

Table 5 Material topics: number of appearances within the 20 reports (Europe)

| Material topic | Appearances | Material topic | Appearances |
|---------------------------------------|-------------|--------------------------------------|-------------|
| Employees health and safety | 18 | Environmental impacts and pollution | 5 |
| Local community rights and engagement | 15 | Rights of indigenous people | 5 |
| Economic performance | 14 | Climate change | 4 |
| Water availability and quality | 14 | Business continuity | 4 |
| Employment | 13 | Emergency preparedness | 4 |
| Waste (including mining) | 13 | Political and regulatory stability | 3 |
| Environmental compliance | 11 | Human rights | 3 |
| Training and education | 11 | Land use and restoration | 3 |
| Biodiversity | 9 | Fair wages | 3 |
| Anti-corruption | 9 | Product quality | 3 |
| Air emissions | 9 | Macroeconomics | 2 |
| Inclusion and diversity | 8 | Equal opportunity and discrimination | 2 |
| Energy | 8 | Catastrophic events | 2 |
| Closure planning | 8 | Natural resources | 1 |
| Employee relations | 8 | Social policies and programs | 1 |
| Transparency | 7 | Transport | 1 |
| Stakeholder engagement | 6 | Anti-competitive behavior | 1 |
| Corporate governance | 6 | Materials | 1 |
| Supply chain management | 6 | Cultural heritage | 1 |
| Socioeconomic compliance | 6 | Cyanide management | 1 |
| Supplier social assessment | 6 | R&D | 1 |

American mining companies, while in Europe this topic was not included in any of the reports. However, six European mining companies reported “Corporate governance” as a material issue for them. This is a term that may include “Business ethics”; therefore, one can claim that six European mining companies identified this topic as material.

As seen in Table 6, the topic of “Human rights” was reported as material by more than 50% of the North American mining companies (11). On the contrary, only three European companies included it in their list of material topics. Similarly, “Socio-economic compliance” was identified as a material issue by six European companies, but only one North American company reported it as a material issue. These differences may be attributed to cultural differences, pressure stemming from national regulations, or terminology differences.

Figure 1 provides an overview of the most commonly reported material topics by all 40 reviewed mining companies in Europe and NA. In Table 7, the 10 most material topics by mining companies in each of the two continents were compared in order to identify any differences between how companies in Europe and NA prioritize their material topics. It was observed that eight (8) out of 10 most material

Table 6 Material topics: number of appearances within the 20 reports (North America)

| Material topic | Appearances | Material topic | Appearances |
|---|-------------|---|-------------|
| Employees health and safety | 19 | Climate change | 4 |
| Employment | 17 | Security practices | 4 |
| Local communities (including indigenous people) | 17 | Freedom of collective bargaining and associations | 4 |
| Water | 17 | Stakeholder engagement | 4 |
| Environmental compliance | 15 | Emergency preparedness | 3 |
| Effluents and waste | 14 | Resettlement | 3 |
| Economic performance | 13 | Local suppliers | 2 |
| Biodiversity | 12 | Product safety and quality | 2 |
| Energy | 12 | Supplier social assessment | 2 |
| Emissions | 11 | Fair wages and compensation | 2 |
| Human rights | 11 | Land use | 2 |
| Business ethics and integrity | 10 | Outreach | 1 |
| Training and development | 10 | Geotechnical challenges | 1 |
| Procurement practices | 10 | Client privacy | 1 |
| Diversity and equal opportunity | 10 | Customer satisfaction | 1 |
| Closure planning | 8 | Production costs | 1 |
| Anti-corruption | 7 | Socioeconomic compliance | 1 |
| Labor relations | 6 | Transport contingency plan | 1 |
| Risk management and emergencies | 5 | Working conditions and social protection | 1 |
| Materials | 5 | Governance and accountability | 1 |
| Market presence | 5 | Information technology | 1 |
| Transparency | 4 | | |

topics were common in both continents. Overall, we can argue that European and North American mining companies have a similar approach when it comes to deciding which topics are material for them. In Europe “Training and education” and “Air emissions” were part of the list of the 10 most reported material topics. In North America, the two remaining material topics, which were not common with the topics reported by European mining companies, were “Energy” and “Human rights.”

4.2 Sustainability Material Topics of the Mining Industry and the SDGs

In this section, we briefly discuss the context under which the material topics in the preceding tables can bring us closer to the fulfillment of specific SDGs. The focus is placed solely on the positive impacts that the management of these topics entails and how this may contribute to the accomplishment of some particular SDGs. The

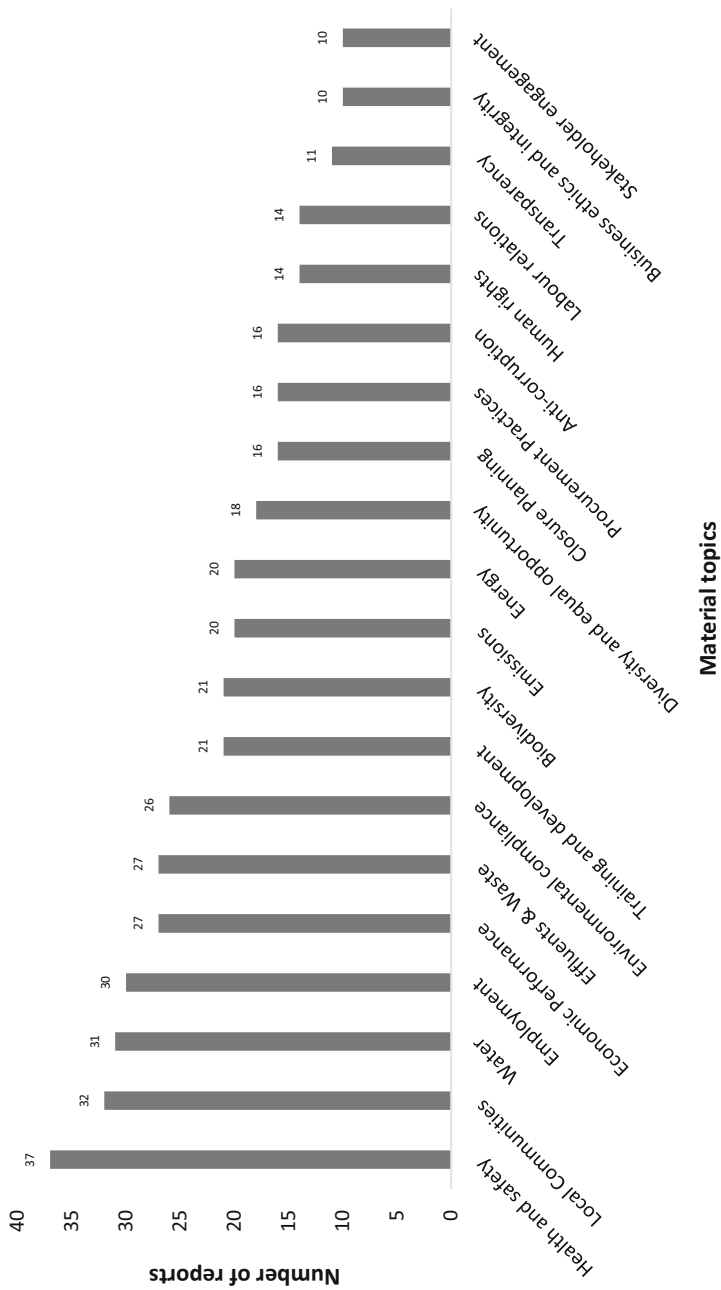


Fig. 1 Most commonly reported sustainability topics by mining companies in Europe and North America

Table 7 Ten most reported material topics by mining companies in Europe and NA

| Rank | Europe | North America |
|------|-----------------------------|-----------------------------|
| 1 | Employees health and safety | Employees health and safety |
| 2 | Local communities | Employment |
| 3 | Economic performance | Local communities |
| 4 | Water | Water |
| 5 | Employment | Environmental compliance |
| 6 | Effluents and waste | Effluents and waste |
| 7 | Environmental compliance | Economic performance |
| 8 | Training and education | Biodiversity |
| 9 | Biodiversity | Energy |
| 10 | Air emissions | Human rights |

negative impacts of mining activity on people and the environment, although commonly discussed in the literature (e.g., Esau & Malone, 2013; Whitmore, 2006), are beyond the scope of this chapter. In a similar vein, the argument that negative impacts would not have occurred if mining was absent is not discussed. Mining activity is taken for granted, and we examine the role of corporate responsibility practices toward the achievement of the SDGs by companies which recognize, manage, and report on their impacts.

Furthermore, it should not be disregarded that the fact that a company publishes a corporate responsibility report does not require its responsibility. Notwithstanding, reporting is a clear indication that a company realizes the need to disclose information on its social and environmental performance and address specific KPIs on the ways their impacts are managed. Reporting may also stem from legal requirements, but in any case adherence to certain standards, such as GRI, is not compulsory, neither in Europe nor in Canada or the United States. Therefore, the formal reporting procedure according to standards is a major step toward mitigating negative impacts, embracing positive ones, and ultimately contributing to the achievement of the SDGs.

All companies in our database used GRI Standards. Thus, they were obliged by the standards to describe each material topic. The following paragraphs provide a short description of the most material corporate responsibility topics for the mining companies, based on their own explanation of the topics. It outlines their approach on each topic and gives us insights on the way they seek to manage it. We extracted the information and meaning from the text and summarized it in simpler terms.

Air Emissions

Mining is considered a heavy industry because it involves large-scale undertakings, requires many acres of land, heavy machinery, and equipment, and presents high barriers to entry. As such, it has an apparent impact on air emissions. Mining companies have become aware of this fact and try to minimize their emissions by modernizing their technologies and equipment. In addition, the mining sector realizes the need for general preservation of air quality, since a lot of mining activities

create dust and other particulate emissions that may cause problems in local communities and the natural environment.

Biodiversity

In most cases, mining activity takes place in remote areas with a virgin natural environment. Human activity in such pristine areas affects biodiversity, and mining companies today acknowledge the importance of preserving balance in the local natural ecosystems. If not, their “social license to operate” (Prno & Slocombe, 2012) is at stake, a risk that they are not willing to take. Thus, in many cases they take action to mitigate any hazards to biodiversity and additional measures to minimize their impact and ensure environmental protection.

Economic Performance

The major argument in favor of mining activity is the positive economic impact that it brings to local and national economies. The mining industry offers secure and well-paid jobs, as well as essential raw materials for other industries that are crucial for everyday goods and services, such as medicine, transportation, renewable energies, and IT.

Effluents and Waste

The mining tailings need extra caution and treatment in many cases. New technologies have evolved over the years achieving better outcomes in managing effluents and waste. Mining companies seem to understand that any incident of spill, flood, or possible accident in waste transportation and waste management can create enormous risk in the mining operation. Therefore, they increasingly invest in the management of effluents and waste in terms of mitigating associated risks and enhancing their overall environmental performance toward the achievement of SDGs.

Employment

Perhaps the second most common argument in favor of the mining activity is the employment opportunities that it offers in remote regions which would otherwise encounter high rates of unemployment. Mining often revitalizes local communities and contributes to overcoming financial crises and poverty.

Energy

Mining is a heavy industry that often requires continuous production, 24 h per day, 7 days per week. Non-stop operation entails increased needs in energy consumption. Mining companies are willing to take advantage of new technologies in energy production along with their land profusion. Optimizing energy management in mining can lead to significant cost reductions, along with reduced emissions and carbon footprint.

Environmental Compliance

Mining is one of the most regulated sectors with many restrictions and prerequisites required in order to obtain and retain environmental licenses and permissions. This context causes the mining sector to be proactive in mitigating negative

environmental impacts and taking all necessary measures to adhere to the precautionary principle.

Employees' Health and Safety

A few decades ago, employment in underground mining operations involved serious health and safety hazards and risks. Working conditions in the mining industry have become much safer in recent years; nonetheless, a certain amount of risk still prevails, and fatal accidents occasionally occur, which is a fact that renders mining companies particularly cautious on employing rigorous measurements and proactive policies for the health and safety of employees.

Human Rights

As in every labor-intensive occupation, the mining industry is susceptible to human rights violation incidents. In addition, given that mining activity often takes place in remote areas, mining companies have a specific duty to respect and secure the rights and culture of indigenous people. In their extensive interaction with local communities, mining companies ought to be extremely cautious in terms of human rights in their security policies and practices.

Local Communities

One of the most important aspects of the social responsibility of the mining sector is engagement with the local communities. Community investing in infrastructures such as roads, bridges, sewage systems, and water treatment facilities is very common among CSR initiatives of mining companies. Mining companies often invest in social cohesion activities and help the retaining of cultural heritage. The main motivation for mining companies to focus on community investments is their need to secure their social license to operate: a condition that is equally important to environmental permitting, since its absence may lead to cessation of production.

Training and Education

Mining companies are interested in training and education of their employees as well as local communities, and training incentives are very common among CSR investment of mining companies. Focus is often given on the empowerment of women and local entrepreneurship.

Water

Mining is by nature an activity with a profound reciprocal impact on water, as most of the time it takes place underground, affecting the local water table. Responsible mining companies are aware of this issue and take necessary measures to protect and retain water deposits and the water quality of the impacted areas.

Within the above-mentioned context, in Table 8 we associate the material topics that were most commonly reported by the surveyed mining companies with the relevant SDGs.

Table 8 Linkage between the most material topics of the mining sector and the SDGs

| Material topics in alphabetical order | SDGs linkage |
|---------------------------------------|---|
| Air emissions | GOAL 3: Good health and well-being GOAL 13: Climate action |
| Biodiversity | GOAL 6: Clean water and sanitation GOAL 13: Climate action GOAL 15: Life on land |
| Economic performance | GOAL 1: No poverty GOAL 5: Gender equality GOAL 9: Industry, innovation, and infrastructure |
| Effluents and waste | GOAL 3: Good health and well-being GOAL 6: Clean water and sanitation GOAL 14: Life below water GOAL 13: Climate action GOAL 15: Life on land |
| Employment | GOAL 1: No poverty GOAL 4: Quality education GOAL 5: Gender equality GOAL 8: Decent work and economic growth GOAL 10: Reduced inequality |
| Energy | GOAL 7: Affordable and clean energy GOAL 13: Climate action |
| Environmental compliance | GOAL 6: Clean water and sanitation GOAL 7: Affordable and clean energy GOAL 14: Life below water GOAL 13: Climate action GOAL 15: Life on land |
| Employees health and safety | GOAL 3: Good health and well-being GOAL 12: Responsible consumption and production |
| Human rights | GOAL 10: Reduced inequality GOAL 11: Sustainable cities and communities |
| Local communities | GOAL 1: No poverty GOAL 2: Zero hunger GOAL 3: Good health and well-being GOAL 4: Quality education GOAL 5: Gender equality GOAL 6: Clean water and sanitation GOAL 8: Decent work and economic growth GOAL 9: Industry, innovation, and infrastructure GOAL 10: Reduced inequality GOAL 11: Sustainable cities and communities GOAL 13: Climate action |
| Training and education | GOAL 1: No poverty GOAL 4: Quality education |
| Water | GOAL 2: Zero hunger GOAL 3: Good health and well-being GOAL 6: Clean water and sanitation GOAL 13: Climate action |

5 Conclusions

This chapter contributes to the existing literature on how mining companies address the SDGs, by examining the most material topics of 40 sustainability reports of mining companies in Europe and North America. It highlights the most commonly reported sustainability material topics, within the mining sector, and provides insights into how those topics are related to particular SDGs. It contributes to the existing literature by adding useful information and data derived from reviewing 40 recent sustainability reports. It highlights the sustainability impacts that have been recognized by the mining industry and relates these impacts to the SDGs. The chapter's theoretical contribution consists of the inter-construct relationship between the mining companies and the SDGs in Europe and North America. Existing literature has emphasized the need for improvements in sustainability reporting of the mining sector, enhancement of credibility and transparency in sustainability reports, and the case for further research in the field of sustainability reporting.

According to our review, in Europe, the five most commonly reported topics by mining companies were "Employees' health and safety," "Local communities," "Economic performance," "Water," and "Waste." The topics of "Inclusion and diversity" and "Employee relations" were reported as being material in a significant number of the reports. On the other hand, "Land use and restoration" and "Natural resources" were only reported as material topics in very few reports (3 out of 20 and 1 out of 20, respectively). This finding is unexpected, given that mining has a massive impact on both of those topics. Nonetheless, it should be noted that 75% of the reports were externally assured by third parties, therefore offering additional credibility on data accuracy, professionalism, and compliance with the requirements of the used standards.

In North America the five most commonly reported topics were "Health and safety," "Employment," "Local communities," "Water," and "Environmental compliance." Half of the reports were externally assured, which is an indication that European mining companies are more likely to seek external assurance than the North American ones. An interesting finding is that "Business ethics" was reported as being material in 50% of the 20 reviewed reports in North America, whereas in Europe this issue was not included in any of the 20 reports. However, "Corporate governance" is a term that may include "Business ethics" and was reported as a material issue by six European mining companies. Finally, it must be stressed that "Human rights" was reported, as a material topic, by more than 50% of the North American mining companies, while only three European companies considered it material. Socioeconomic compliance was identified as a material issue by six European companies, while only one North American company found this topic material.

Our findings suggest that mining companies in Europe and North America pay more explicit attention to SDGs: 3 "Good health and well-being," 1 "No poverty," and 8 "Decent work and economic growth." Environmental aspects are in principle addressed in relation to water, corresponding to SDG 6 "Clean water and sanitation."

In this respect, our findings are to a considerable degree in line with Hatayama (2022) and Deveci et al. (2022), although one would expect that more attention would be given to energy consumption and greenhouse gas emissions. A clear connection between the reviewed reports and the SDGs was not present in our study, similarly to Ivic et al. (2021). Nonetheless, we examined reports corresponding to years 2017–2019, and our research was limited to reports published in the GRI database; further research should be conducted to investigate more recent reports, as the SDGs agenda gains increased momentum year by year.

Along with the efforts of the mining companies to take up responsibility and address SDGs by recognizing and mitigating their negative impacts and embracing the positive ones, there is one more crucial aspect that should not be ignored; the mining sector directly promotes the SDGs agenda by offering essential materials for the green transition. The extracts of the mining industry are vital and essential in the production of batteries that enable the transition from fossil fuels to electric transportation. On the other hand, one can argue that mining exploits non-renewable resources and, in that context, it cannot genuinely promote the agenda of the SDGs.

It cannot be disregarded that our data rely on self-reporting of the mining companies, who decide themselves the topics to be included in their reports. A deeper analysis, having as starting point the 17 SDGs and the way they are affected both in a positive and negative way by mining, would be an interesting area for further research. In addition, as we stated in the methodology section, we used the mining sustainability reports from the GRI database. This excludes mining companies using different reporting frameworks and standards, as well as mining companies that had not uploaded their report on the database. A comprehensive analysis of the whole mining industry per geographic district would be very insightful. Also, a further analysis of each topic based on specific KPIs and metrics would offer useful benchmarks and would highlight the performance of the industry.

The GRI Universal Standards that will come into force from 2023 onward, along with the newly introduced European Corporate Sustainability Reporting Directive (CSRD, 2022), the forthcoming European Sustainability Reporting Standards and the current European regulations on Environmental, Social, and Governance topics are going to set new rules, obligations, and reporting standards for all industries, including the mining sector. The SDGs agenda is gaining momentum in the business world, and more details regarding KPIs and specific mentions of the strategies for SDGs are being requested for reporting companies.

Our findings contribute to the discussion on how the mining industry may address sustainable development and provide insights on the industry's current reporting practices. The research may ignite discussions among academia and promote greater awareness of professionals in the mining industry and governments in relation to the mining industry and SDGs. The mining industry should establish a clearer connection between its sustainability reporting practices and SDGs. Greater awareness might in return lead to improving the social and environmental performance of the mining industry.

Appendix

Table 9 The 17 Sustainable Development Goals^a

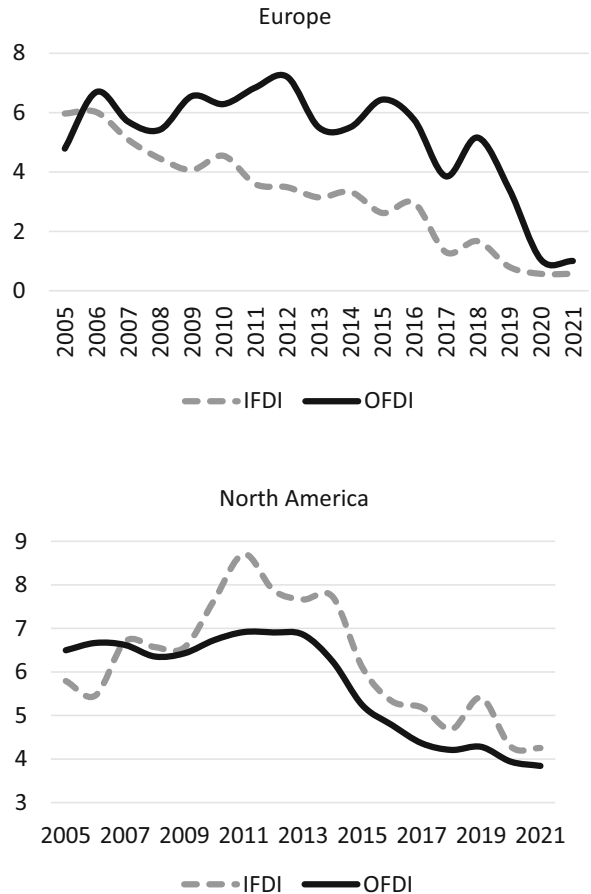
| Goal | Title | Explanation |
|---------|---|---|
| Goal 1 | No poverty | End poverty in all its forms everywhere |
| Goal 2 | Zero hunger | End hunger, achieve food security and improved nutrition, and promote sustainable agriculture |
| Goal 3 | Good health and well-being | Ensure healthy lives and promote well-being for all at all ages |
| Goal 4 | Quality education | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all |
| Goal 5 | Gender equality | Achieve gender equality and empower all women and girls |
| Goal 6 | Clean water and sanitation | Ensure availability and sustainable management of water and sanitation for all |
| Goal 7 | Affordable and clean energy | Ensure access to affordable, reliable, sustainable, and modern energy for all |
| Goal 8 | Decent work and economic growth | Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all |
| Goal 9 | Industry, innovation, and infrastructure | Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation |
| Goal 10 | Reduced inequality | Reduce inequality within and among countries |
| Goal 11 | Sustainable cities and communities | Make cities and human settlements inclusive, safe, resilient, and sustainable |
| Goal 12 | Responsible consumption and production | Ensure sustainable consumption and production patterns |
| Goal 13 | Climate action | Take urgent action to combat climate change and its impacts |
| Goal 14 | Life below water | Conserve and sustainably use the oceans, seas, and marine resources for sustainable development |
| Goal 15 | Life on land | Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss |
| Goal 16 | Peace and justice strong institutions | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels |
| Goal 17 | Partnerships to achieve the goal | Strengthen the means of implementation and revitalize the global partnership for sustainable development |

^aSource: United Nations Global Compact available at <https://www.unglobalcompact.org/sdgs/17-global-goals> (accessed 24.1.23)

Table 10 Reports of mining companies in Europe, the United States, and Canada

| |
|---|
| 1. Alacer Gold (2018). Developing a sustainable legacy |
| 2. ALROSA PJSC (2018). Social and Environmental Report 2017 |
| 3. Anglo American (2018). Sustainability Report 2018 |
| 4. Antofagasta PLC (2018). Sustainability Report 2017 |
| 5. Avalon Advanced Materials (2019). 2019 Sustainability report: critical minerals for a sustainable future |
| 6. Boliden (2018). Metals for sustainable value creation 2017 |
| 7. B2Gold (2018). 2018 sustainable mining report |
| 8. Capstone Mining (2018). Sustainable thinking: building value 2017 |
| 9. Centerra Gold (2018). 2017 Sustainability report |
| 10. Compass Minerals (2018). Compass Minerals 2018 Sustainability report |
| 11. Dundee Precious Metals (2018). Sustainability—integrated in everything we do |
| 12. Endeavour Mining (2018). 2018 Sustainability report |
| 13. Endeavour Silver Corp. (2018). 2018 annual review and sustainability report |
| 14. Evraz Group (2018). Sustainability Report 2018 |
| 15. Fortuna Silver Mines Inc. (2018). Responsible mining: 2018 sustainability report |
| 16. Galiano Gold (2018). 2018 Corporate Social Responsibility report |
| 17. Glencore (2018). Sustainability Report 2018 |
| 18. Goldcorp (2018). 2017 Sustainability report |
| 19. Hellas Gold (2018). Hellas Gold Sustainability Report 2017 |
| 20. Highfield Resources Ltd. (2018). Sustainability Report 2018. |
| 21. Iamgold (2018). Health, safety, and sustainability report, 2018 |
| 22. JSW Group (2020). Sustainability report 2020 |
| 23. Kinross Gold Corporation (2018). Corporate Responsibility report 2017 |
| 24. Lonmin (2018). 2018 Sustainable development report |
| 25. Lucara Diamond (2018). 2017 Sustainability report |
| 26. Lundin Mining (2018). 2017 Sustainability report |
| 27. Newmont Mining (2018). Beyond the mine 2018 |
| 28. Normickel (2018). 2018 Sustainability report |
| 29. Pan American Silver (2018). 2017 Sustainability report |
| 30. Petra Diamonds (2019). 2019 Sustainability report |
| 31. Polymetal International plc (2018). Sustainability Report 2018—Integrating sustainability throughout |
| 32. Polyus (2018). Driving sustainable growth—Sustainability Report 2018 |
| 33. Randgold Resources Limited (2018). Growing a sustainable legacy |
| 34. Rio Tinto UK (2018). Rio Tinto 2017 sustainable development report |
| 35. SRG Graphite (2018). 2018 Sustainability report |
| 36. SUEK (2018). Integrated report 2017 |
| 37. Teck Resources (2018). 2018 Sustainability report |
| 38. The Mosaic Company (2018). 2018 sustainability disclosure and GRI index |
| 39. Toro Gold (2018). Sustainability Report 2018 |
| 40. Vedanta Resources (2018). Sustainable development report FY2018–2019 |

Fig. 2 Percentage of total FDI positions in mining and quarrying sector: Europe and North America, 2005–2021. Notes: (1) Own calculations with data covering Canada and the United States. (2) Own calculations with data from Europe covering Austria, Belgium, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom [Source: OECD stats available at <https://stats.oecd.org/> (accessed on 19/1/2023)]



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Socio-Technical Imaginaries of Cultural Transformation Toward Sustainable Development



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Abstract It is becoming evident that an important aspect of internationalization of business is conducting activities that address issues related to the Sustainable Development Goals in developing markets. When conducting such activities international businesses often partner with local stakeholders for developing solutions and managing such multi-stakeholders for achieving sustainability goals. Effective partnering and management of multi-stakeholder networks call for a collective visioning process that captures the communities' expectations and imaginaries for a shared understanding of technological and related social changes accompanying the implementation of development projects. The objective of this research is to shed light on how multi-stakeholder networks with diverse cultural moorings could be mobilized through socio-technical imaginaries for orchestrating activities required for implementing developmental projects. This study uses an empirical setting to showcase specifics of culture shaping socio-technical imaginaries of technologies for sustainability and their role in influencing cultural practices of local communities. The contribution of this research highlights the agential role of infrastructure in transforming culture through associated imaginaries. The imaginaries in this case are materialized through the design, construction, and operation of the water supply infrastructure which embodies certain morals, values, and norms. In revealing certain cultural practices that hinder ideas of well-being, the infrastructure triggers their transformation.

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1 Introduction

The United Nations actively promotes sustainable development in all spheres of life and regions of the world through the sustainability framework Agenda 2030 that includes the Sustainable Development Goals (SDG) (SDG, 2015). Conventionally, sustainability is grounded on three pillars—social, economic, and environmental—balance among which is supposed to lead to the harmony between societal development and the natural environment (Purvis et al., 2019). To achieve this balance, SDG 17 “Partnership for the goals” emphasizes a need for collaboration and partnership among various interest groups, including international business stakeholders, to facilitate changes leading to more sustainable practices. Thus, an efficient shift to sustainability requires mobilizing of multiple stakeholders especially in the context of developing countries as they are most affected by different social and environmental issues (Nonet et al., 2022). In keeping with Freeman’s (2010, p. 8) statement “no stakeholder stands alone in the process of value creation,” multiple stakeholders need to join the effort that include civil society, governmental institutions, and businesses for the common contribution to the world’s sustainable development (De Bakker et al., 2019). The challenge of global cultural transformation toward sustainable development is related both to the number of stakeholders involved in this transformation and to the multifacetedness and complexity of stakeholders’ view on the issue across countries. For instance, developing countries may be especially challenging for stakeholders from developed countries for implementing sustainability-related projects due to managerial complexity and context-specific issues of the communities related to political systems and dominant culture practices (e.g., Beamish & Lupton, 2016; Dziubaniuk et al., 2022; Ivanova-Gongne, Galkina, et al., 2022; Ramirez, 2021; Roy & Goll, 2014). This chapter investigates further challenges of sustainability-related project implementation under the joint effort of developing and developed countries’ stakeholders. This study takes a stance of international business (IB) academic field and highlights the role of multinational companies, their managerial practices, and influences on the cultural practices for SDG implementation in the developing regions.

Multinational enterprises (MNEs) play an important role in the partnering for the goals processes since they make significant negative and positive impacts on sustainability with their business activities (Kolk et al., 2017). The impact of MNEs businesses on poverty, inequality, climate change, and peace is often approached in the IB literature (ibid, 2017). As a proactive step, MNEs make attempts to contribute to sustainability-related causes in developing regions, e.g., by promoting inclusive education (SDG 4 “Quality education”), mitigating regulatory weaknesses regarding environmental issues, supporting welfare of the communities (SDG 11 “Sustainable cities and communities”), or increasing economic viability of the regions (SDG 8 “Decent work and economic growth”) (Becker-Ritterspach et al., 2019; Castillo & Chiatchoua, 2022; Eweje, 2006; Lashitew & van Tulder, 2019). However, entering and operating in developing regions is frequently associated with numerous risks for international MNEs, which requires them to network with local business

organizations and with non-market actors such as non-governmental (NGO) and governmental organizations (Doh & Lucea, 2013; Kolk et al., 2017). Among the potential risks when entering and operating in developing markets are institutional voids (inefficient institutional regulations and norms) (Lashitew & van Tulder, 2019), political instability (Okafor et al., 2022), or corruption (Stevens & Newenham-Kahindi, 2021). Networking of MNEs with the local stakeholders aims to mitigate these challenges and helps to facilitate sustainability-related programs. The multi-stakeholder networking is initiated among the interest groups such as governmental institutions, businesses, society, and international institutions to develop specific solutions that are challenging to implement without collaboration and partnership (Nonet et al., 2022; Roloff, 2008a). Management of the multi-stakeholder networks is especially important for achieving the SDGs (Eweje et al., 2021; Schneider & Buser, 2018).

In addition to the most common issues, international companies may face socio-cultural challenges in developing regions if they fail to appropriately adapt their initiatives to local realities. This adaptation may require exploration of specific cultures and involvement of the local communities of the developing regions in decision-making concerning sustainability projects (Abugre, 2018; Sinkovics et al., 2016). Neglecting the local socio-cultural context may lead to mistrust of the communities and failure of project implementation even when companies attempt to improve welfare of the population (Sovacool & Griffiths, 2020). The way how local communities and other stakeholders in developing countries make sense of sustainability could differ from that of managers of international companies (Dögl & Behnam, 2015; Dziubaniuk et al., 2022; Ivanova-Gongne, Torkkeli, et al., 2022), including understanding the intended changes in their daily behavior and practices. Socio-cultural barriers to implementing sustainability may be reflected in, for instance, the prevention of low-carbon technologies implementation due to biases or misuse of technology (Sovacool & Griffiths, 2020); failure of renewable energy technologies implementation in the rural areas due to miscommunication about the innovation and lack of understanding of the community needs (Urmee & Md, 2016); or resistance to adopt sustainable construction materials due to preestablished culture of the regional construction industry (Mousa, 2015).

Since cultural practices and schemas (shared perspectives and morals applied to the meanings of certain societal concepts, challenges, or events) influence societal behavior and attitude to sustainability (Ivanova-Gongne, Torkkeli, et al., 2022; Roy & Goll, 2014), and sustainability projects in rural areas are frequently associated with the introduction of innovations for sustainability, it is significant to understand how communities regard sustainability from within their cultural schemas. The communities' expectations and imaginaries related to technologies geared toward sustainability might differ from those of the international businesses implementing them. The concept of *socio-technical imaginaries* is relevant for understanding such a context. This concept embraces the shared understanding of technological and related social changes through collectively adopted discourses on social practices (Jasanoff, 2015; Pfotenhauer & Jasanoff, 2017). This conceptual framework offers the ability to identify how collective understanding emerges during the

implementation of sustainability innovations. In this study, the introduction of water supply infrastructure in the rural areas of a developing country brings with it associated imaginaries resulting in changes of perspectives on cultural mores. Therefore, this research aims to explore *how specifics of culture shape socio-technical imaginaries of sustainability-related technologies and their implementation, and how these technologies can influence cultural practices of the local communities*. To the authors' knowledge, research through the lenses of social-technological imaginaries is rarely considered when taking a cultural view for investigating discourses on publicly performed visions of desirable outcomes of sustainable technologies in international business.

This research empirically draws on the socio-cultural practices of the rural communities of western Nepal involving an engagement process with a Finnish consulting company involved in the implementation of a water supply and sanitation project implementation in 2013–2019. The project has contributed toward the achievement of SDG 6 “Clean water and sanitation” by establishing sustainable freshwater supply to the households located in the mountain terrains. The inclusivity inherent in universal access to water access has allowed the communities to improve hygiene practices, health, and overall social well-being. In addition to establishing water supply technologies, this project has triggered other important processes that affected socio-cultural order and processes of the communities. To approach the research objectives, this study explores empirical data of the interviews collected from the four key company's managers who directly participated in the project's facilitation. Additionally, secondary data in the form of publicly available documents, websites, and articles related to this project are also analyzed.

This study contributes to the scarce IB literature on the role of international companies from developed countries involved in sustainable development and achievement of SDGs in developing countries (Van Tulder et al., 2021; van Zanten & van Tulder, 2018). This study also addresses a call for further research on involvement of international companies in various developing regions as the key stakeholders to advance sustainability (Kolk et al., 2017). By extending the understanding of socio-technical imaginaries (Jasanoff & Kim, 2015) shaped in the socio-cultural context, it makes an interdisciplinary contribution. Furthermore, this study adds to the multi-stakeholder networking theory applied in the context of developing countries by framing managerial practices involving multiple stakeholders aiming to implement sustainability-related projects (Eweje et al., 2021).

The research findings enhance the understanding of specific socio-cultural aspects of the rural regions of Nepal that may have managerial implications for MNEs related to the specific cultural and social structures that should be considered when entering developing or least developing markets or facilitating sustainability initiatives. This study highlights the culture-specific managerial challenges that international businesses may face in developing regions and different meanings of sustainability and sustainable innovations for the local communities. This study makes contributions to the research on challenges of SDG implementation, particularly addressing SDG 3 “Good health and well-being,” SDG 4 “Quality education,” SDG 5 “Gender equality,” SDG 6 “Clean water and sanitation,” SDG

11 “Sustainable cities and communities,” SDG 13 “Climate action,” and SDG 17 “Partnership for the goals.”

This chapter is structured as follows. First, we provide theoretical background on sustainability in developing countries and involvement of MNEs in these contexts. We also provide an overview of the concept of socio-technical imaginaries in relation to a cultural perspective. Second, we describe the methods applied in order to collect and analyze the research data for our case. Third, we conclude with findings from the case and discuss it in light of the focal research question. Finally, we provide several theoretical contributions, managerial implications, and avenues for further research.

2 Theoretical Framework

2.1 *Sustainability in Developing Countries and MNEs*

Complexity inherent in the implementation of SDGs undoubtedly requires engagement of multiple stakeholders in the cross-sector partnerships, where business organizations may contribute as facilitators of systematic changes toward sustainability (Nonet et al., 2022). Projects or initiatives aimed at implementing sustainability unite business organizations, governmental institutions, non-profit organizations, and civil society that co-create value in social, economic, environmental, and ethical and educational spheres of life (Lacoste, 2016; Ramirez, 2021). This value co-creation demands close international collaboration and stakeholders’ networking that also promoted via SDGs (Eweje et al., 2021; van Zanten & van Tulder, 2018). *Multi-stakeholder* approach is considered a suitable conceptual framework for studying collaborations for sustainability since it embraces a form of stakeholder management where various actors jointly solve some issues affecting them that are too complex to address without collaboration (Clarke & MacDonald, 2019; Roloff, 2008b). Multi-stakeholder networking adopts a dialogue style of interaction among the engaged parties that may possess unique experience and understanding of the context (ibid, 2008b).

Due to specific aims and complexity of the multi-stakeholder interaction, the context within which such interactions occur becomes an important factor to consider, as it may be influenced by politics, structure of the economic system, level of societal and technological development of the region, etc. (Bäckstrand, 2006; Eweje et al., 2021; Roloff, 2008a). Sustainability initiatives and projects addressing SDGs in developing regions may experience contextual factors and uncertainty (e.g., Dentoni et al., 2018). Developing regions are often characterized by institutional voids, i.e., inefficient institutional norms and regulations that may complicate international networking (Doh et al., 2017; Koch, 2020), corruption, and exclusion of local stakeholders in the decision-making process (Ramirez, 2021; Stevens & Newenham-Kahindi, 2021). Interaction with multiple stakeholders and especially with the local project beneficiaries can help in tackling these challenges, bring

knowledge and expertise about the local issues, and enable efficient adaptation to local conditions (Romestant, 2020). Specific adaptation may also be needed for cross-cultural communication and understanding local cultural and social needs of the community (Abugre, 2018; Sinkovics et al., 2016) especially if the case concerns sustainable technologies implementation (Sovacool & Griffiths, 2020).

While sustainability is a long-established concept in developed countries (Du Pisani, 2006), developing countries have only recently started to look more closely into issues related to sustainability (Dögl & Behnam, 2015). Similarly, research on sustainability and sustainable development in developing countries is an underdeveloped but growing field (e.g., Kolk et al., 2017; Muller & Kolk, 2009). Some researchers criticize the current view on sustainable development of being too “universal” and not considering, among others, the specifics of developing countries’ institutional, economic, and social contexts (Bali Swain & Yang-Wallentin, 2020). For instance, Bali Swain and Yang-Wallentin (2020) conclude that developing countries should focus their resources in the short run on social and economic sustainability, whereas the focus on environmental and social sustainability may be more prioritized by developed countries. This study shows similar findings to those of Dziubaniuk et al. (2022), where the priority of sustainability in the rural Nepal regions is associated with economic and social well-being, whereas environmental concerns are more typical of the Western countries. Such results are linked to the core challenge in developing countries of achieving basic standards of living (Bali Swain & Yang-Wallentin, 2020), which should be the focus of Western companies operating in those countries and aiming to promote sustainability.

Despite many attempts made to reach SDGs and sustainability initiatives in developing regions, poverty was among the main causes hindering the goals’ implementation according to Leal Filho et al. (2021). This study also indicates that SDG 3 “Good health and well-being,” SDG 2 “Zero hunger,” SDG 4 “Quality education,” and SDG 6 “Clean water and sanitation” were rated as the goals most affected negatively by poverty due to inefficient governance, lack of financial resources, educational and training programs, and regulatory policies (ibid, 2021). Poverty also places a burden on environmental ecosystems since developing regions experience the effects of climate change and natural disasters (Unpei, 2023). Thus, poverty in developing countries is seen as one of the barriers toward implementing sustainability-enhancing innovations in those countries due to negatively self-reinforcing economic, political, or social behaviors that hinder changes (Khavul & Bruton, 2013).

Previous research on MNEs in developing countries has focused both on negative and unethical acts related to multinationals (Burritt et al., 2020) and on the positive outcomes (Brandl et al., 2022). Among positive factors are influences on socio-cultural development of the regions when companies support educational programs and inclusive governance practices (Lashitew & van Tulder, 2019), filling institutional voids by influencing the institutional structures toward more democratic principles (Becker-Ritterspach et al., 2019) or implementing projects aimed at enhancing well-being of the communities (e.g., Schneider & Buser, 2018). Among the negative factors, research highlights the human right abuses linked to MNEs

operations (Giuliani & Macchi, 2014), opportunism (Oetzel & Doh, 2009), corruption (Cooke et al., 2022), and negative ecological impact by reducing local communities' ownership of the natural resources and ability to manage them (Brandl et al., 2022). While natural-resource-seeking purposes of MNEs arguably "increase rural poverty through the degradation of community strength in the rural areas" (Brandl et al., 2022, p. 1139), foreign companies and organizations in general also bring along new social and cultural knowledge, as well as technologies fostering sustainability, which with the correct approach can benefit the local communities. However, some technologies may be difficult to introduce specifically due to low understanding of cultural specifics. The study of Sovacool and Griffiths (2020) highlights examples of such cultural barriers in developing regions toward low-carbon energy producing technologies such as solar panels or stoves. For instance, in Papua New Guinea solar panels could not be installed only in one village since the neighboring villagers may damage them because sharing resources is rooted in the tribal system. In Nepal, some households would cover the panels with the leaves to make them part of nature or use them as laundry drying racks. Modern cooking stoves designed to reduce emission from traditional fuels were rejected in some rural Indian communities as they were unable to cook traditional bread that goes against the local culture. Similar issues were faced in East Timor where women, who are traditionally responsible for cooking, refused to use improved stoves as they believed that new stoves make the taste of food inferior. In Zimbabwe, solar cookers were rejected in some regions as sunlight has a spiritual significance; therefore, capturing this light can be considered as stealing from Heaven. These examples show that more research is required on how foreign companies can potentially initiate cultural change in local communities toward more sustainable behavior by listening and adapting their actions to the needs of those communities. Such cultural change would require co-constructed socio-technical imaginaries developed through interaction between local communities and foreign companies, which is discussed in the following section of this chapter.

2.2 *Socio-Technical Imaginaries and a Cultural Perspective*

All technologies, complex or simple, are enmeshed in society through components of social order in the form of roles, institutions, and practices (Jasanoff & Kim, 2015). For instance, automobiles take shape in the work of scientists, engineers, and designers, through patents and trademarks, stabilized for the market by workers and firms, regulators, dealers, distributors, marketing and advertising professionals, and users who help create the imaginaries of the future, in terms of use, appeal, and meaning (ibid, 2015). Jasanoff (2015) refers to *socio-technical imaginaries* as a collective and institutionally legitimized vision of a desirable future that is shaped by the common understanding of the structure and forms of social life supported and influenced by technological advancement. Socio-technical imaginaries inform the creation of socio-technical futures through debates related to the promises of

technologies as well as the factors like governance mechanisms leading to the processes of socialization. In that socio-technical futures combine potentialities of new technologies with the envisaged societal change reflected in new social arrangements (Konrad & Böhle, 2019).

Since the case outlined in the chapter involves the introduction of technologies that offer freshwater supply to the rural communities, the process of introduction embedded in the narratives of actors involved could be framed within socio-technical imaginaries. These imaginaries through knowledge objects (artifacts that encapsulate the meaning and social relations of particular communities), scenarios, roadmaps, and narratives enable the creation of socio-technical futures that present possibilities of progress and change in cultural practices.

Local cultural practices and understandings in developing countries may affect the shaping and the original meaning of socio-technical imaginaries that actors from developed countries attempt to introduce in those countries. Culture, however, is never static and interaction between MNEs and local actors may allow shaping the socio-technical imaginaries in a way that they are adapted successfully in the local communities considering the local cultural specifics. Transformation in general, as well as toward sustainability, can be seen both as “physical and/or qualitative changes in form, structure or meaning-making” and “as a psycho-social process, involving the unleashing of human potential to commit, care and effect change for a better life” (O’Brien, 2012, p. 670). Interaction between local communities and MNEs implementing the sustainability-enhancing technology is vital for changing the persistent local cultural schemas of sustainability, which in turn affect communities’ behavior and practices. *Cultural schemas* constitute shared knowledge, lenses, and templates used for ascribing meanings to certain concepts, events, problems, and stimuli (Ivanova-Gongne, 2015; Leung & Morris, 2015), as well as to understand societal environments (Ivanova-Gongne, Torkkeli, et al., 2022). Pre-existing cultural schemas and as a consequence of a cultural practice may bias and shape the local communities’ understanding of socio-technical imaginaries being introduced by foreign companies. At the same time, applicability, i.e., fit to a certain situation (Leung & Morris, 2015), of the new and/or changed cultural schemas and practices related to the introduced socio-technical imaginaries may affect its integration into the local community and co-construction/adaptation.

Socializing technologies involve the circulation of socio-technical futures among various stakeholders and through a process of deliberative and reflective future-making they are integrated into policy and innovation processes (Konrad & Böhle, 2019). Future-making is performative and deals with anticipatory practices such as foresight and scenario-building as governance mechanisms (Konrad & Böhle, 2019), and here, engagement with local cultures becomes relevant. The following section discusses specifics of Nepali culture and practices related to water treatment that is a major empirical case of this study.

2.3 *Socio-Cultural Context of Nepal*

Nepal is rich in culture but one of the poorest countries that, however, takes many steps to improve its socio-economic situation. According to the Multidimensional Poverty Index (MPI, 2021) report, which estimates country's health, education, and living standards, Nepal has reduced poverty index from 30.1% in 2014 to 17.4% in year 2019, but the COVID-19 pandemic slowed the country's development (MPI, 2021). It was predicted that Nepal will graduate from the least developed country category in 2021, but the pandemic slowed down the process and is now expected to attain this goal by 2026 (International Trade Centre, 2022). The main reason for lagging is rooted in a military conflict the country experienced in 1990. It, however, brought changes with the establishment of pro-democratic government (conventionally, monarchy) but faced new challenges of political rivalry. Despite turbulent times during 1990–2000s and several politically motivated armed conflicts, the country has abolished monarchy and switched to the status of democratic republic only in 2008 (Doty, 2016; Wells & Sharma, 1998). Modern economic development of Nepal is focused on agriculture, tourism (in the rural areas tourist infrastructure is predominantly facilitated by small family-owned businesses), and manufacturing oriented primarily toward neighboring markets of China and India, both of which exert significant influence on politics and culture of Nepal (NDU, 2019; Paudel & Billon, 2018).

Currently, Nepal is home to approximately 120 ethnic groups and 100 languages (Doty, 2016). This cultural diversity embodies levels of social exclusion of certain groups of minorities in addition to issues of gender inequalities (UNDP, 2021). Society in Nepal remains mostly patriarchal, especially in the rural areas which means that women can be restricted in the community decision-making and other opportunities due to cultural norms, values, and religious beliefs and traditions (Becken et al., 2013). Women of Nepal are traditionally responsible for the households but may experience inequalities in terms of access to education, healthcare services, and participation in politics (Shrestha, 2018; Shrestha & Clement, 2019). Similar limitations concern a silent caste system representing a hierarchy of power that prevents ethnic minorities from participating in the discussion of community development (Dziubaniuk et al., 2022). The UN together with the government of Nepal and international NGOs constantly attempts to improve social inclusion focusing on empowering women by promoting micro-entrepreneurship, implementing social inclusion policy and inclusive local governance systems (UNDP, 2021).

In addition to social issues, rural and mountain areas of Nepal experience devastating effects of climate change that are reflected in heavy rains and consequently landslides, poor crop productivity, extinction of plants and animal species, loss of drinking water resources that causes forced relocation of villages, etc. (Bocchiola et al., 2019; Haapala & White, 2018; Paudel et al., 2021). Drinking water supply especially in the rural areas used to be a challenge and remains among current priorities in Nepal (Shrestha & Clement, 2019). The Government of Nepal

has signed “The UN Human right to water and sanitation” resolution in 2010 that recognizes the right for safe and clean drinking water and sanitation as a human right (UN, 2010). This offers direction for developing sustainable solutions in the sphere of water supply, access, and treatment. However, cultural practices related to water usage and adoption of technologies or new cultural schemas are important to consider for changes as noted by Rainey and Harding (2005). Their study offers an example of a cultural barrier in adopting a simple method of water purification since water in Nepali culture is associated with pureness rather than contamination. Taste and color of water are valued over whether it is safe to drink. Nevertheless, according to MPI report (2021), access to drinking water has gradually improved with international projects and collaboration. Additionally, the UN reports indicate improvement in sanitation in the rural areas that used to have problems with open defecation and low standards of hygiene such as a lack of handwashing. Governmental campaigns aimed at disseminating information on the importance of sanitation and hygiene were instrumental in effecting change in using toilets and traditional behavior despite the often-expressed view that such practices were “against our longstanding culture” (UN News, 2019).

3 Methodology

This study focuses on Rural Water Supply and Sanitation Project in Western Nepal Phase II (RWSSP-WN) that was among those international collaboration projects that contributed to water supply facilitation in the rural areas of Nepal. Through the installation of water supply, the project had influenced changes in cultural practices and social well-being and contributed toward building a shared vision along with local communities toward sustainability and future sustainable development of the regions.

3.1 Data Collection and Analysis

This study regards RWSSP-WN phase II executed in collaboration between the Finnish and Nepalese governments involving local Nepalese municipalities, communities and village development committees, and the Finnish technical assistance consultant that is the focal company of this study. The project lasted from 2013 till 2019. RWSSP-WN is a water supply, sanitation, and hygiene project which aims at “improved health and fulfilment of the equal right to water and sanitation for the inhabitants of the project area” (RWSSP-WN Completion Report, 2019, p. 1). The project has aimed to ensure rights for “the poorest and excluded households’ to access safe and sustainable domestic water, good health and hygiene ensured through a decentralized governance system with improved effectiveness of rural water supply and sanitation services” (ibid, p. 1). Thus, besides managing

Table 1 Empirical data outline

| Data type | Data outline |
|---------------------------------|---|
| Interviews | Respondent 1 Chief technical adviser Respondent 2 Senior manager Respondent 3 Field specialist, sub. chief technical adviser |
| Project reports | RWSSP-WN Phase II Completion Reports. Available at: https://www.rwsspwn.org.np |
| Project-based academic articles | Haapala, J., & White, P. (2018). Development through Bricoleurs: Portraying local personnel's role in implementation of water resources development in rural Nepal. <i>Water Alternatives</i> , 11(3), 979–998. White, P., & Haapala, J. (2019). Water security and social inclusion: Local governance within the newly established rural municipalities in Nepal. <i>New Angle: Nepal Journal of Social Science and Public Policy</i> , 5(2), 1–29. White, P., & Haapala, J. (2018). Technical advisors as brokers: Translating gender equality and human right policies and values into practice in the water sector in Nepal. <i>European Journal of Development Research</i> , 31(3), 643–662. White P., Rautanen, S-L., & Nepal, P. (2017). Operationalising the right to water and sanitation and gender equality via appropriate technology in rural Nepal. <i>Human Rights and Technology. The 2030</i> . 217–240. |
| Academic dissertation | Doty, A. (2016). <i>Bringing peace to life? A narrative analysis of Finnish development intervention in conflict-affected Nepal</i> . University of Tampere, Finland. |

construction of the water supply in the rural areas, the focal company had to ensure that gender equality and social inclusion would result in fair water access and sanitation. Currently, phase II of the project is successfully completed by achieving all the established goals.

This study is of qualitative character and the data consist of interviews, publicly available project reports, a doctoral thesis, and research papers drawn upon the project data and published in academic journals (see Table 1 for details). The interviewees are representatives of the Finnish company that facilitated and managed the project on site. The company's technical advisers have provided technical expertise and assistance in construction processes performed by the small local firms and individuals and arranged training programs on water schemes usage to the local communities. During their interaction with the local stakeholders, the managers have faced some socio-cultural challenges that needed attention to ensure that water supply is inclusively accessible and treated in a proper way. Three interviews were collected in total. Despite the limited number of interviews, the interviewees' insights into the challenges faced during the project offer a significant input for this research as they directly participated and managed the processes of the project implementation. The interviews have covered the following key themes: (1) major project goals and methods of its implementation; (2) roles of the involved stakeholders facilitating the project; (3) socio-cultural challenges or cultural specifics that interviewees faced during the project execution; (4) the meaning of sustainability in the context of Nepal; (5) how the project and interaction with the local

Table 2 Literature summary

| Author(s) and year | Conceptual relation |
|---|---|
| Sovacool and Griffiths (2020) | Cultural barriers to technologies adaptation including a case of Nepal |
| UNDP (2021) | Gender equality and social inclusion in Nepal, UN report |
| Dziubaniuk et al. (2022) | Challenges of water supply technologies implementation in the rural Nepal areas |
| Becken et al. (2013) | Cultural norms of Nepal communities |
| Shrestha (2018) | Human rights perspective to gender inequality in Nepal |
| Bocchiola et al. (2019) and Paudel et al. (2021) | Effects of climate change on social-economic sustainability in Nepal |
| Rainey and Harding (2005) and Shrestha and Clement (2019) | Cultural values and attitudes to water usage in Nepal |
| UN News (2019) | UN report on national hygiene and sanitation camping in Nepal |

community stakeholders have influenced the latter's understanding of sustainability and future vision of the community development; and (6) how these influences were reflected in the socio-cultural practices. Each interview lasted around 45–60 min and have been collected during March–May of 2020. Since only the Finnish representatives of the focal company were interviewed, this study adopts “Western” perspective on the case. While participation of Nepal-native stakeholders in this study would deepen the understanding of the cultural specifics and changes that are shaping socio-technical imaginaries, we attempt to illustrate an “outsider” perspective on the local challenges as they may notice the changes in the local cultural schemas that could remain overlooked by the locals.

The collected interviews may give only limited information of the issue in focus; thereby the data obtained from the informants were supported by an analysis of project completion reports that, besides technical specification of the water schemes construction, also include some reflection on how cultural practices of local communities were affected. Academic articles and a doctoral thesis add trustworthiness to the data analysis by covering different aspects of the project implementation and providing a more holistic picture. The empirical data collected and analyzed for this book chapter are summarized in Table 1.

Additionally, this study is supported with academic literature sources covering research on cultural specifics, water treatment, and challenges of technologies adaptation in Nepal. Thus, the empirical results of this study are complemented with the previous literature to support discussion and to improve understanding of the socio-cultural and environmental issues predominant in the local communities. The key literature sources used for this study are summarized in Table 2.

Interviews and other textual artifacts were examined through content analysis (Duriau et al., 2007; Zhang & Wildemuth, 2009). Qualitative content analysis is a useful method for interpreting the meaning conveyed in the interviews and other

textual data (Elo et al., 2014) and underlying themes in the text being analyzed (Kohlbacher, 2006). The steps in our analysis were the following: First, the interviews were recorded with the respondents' permission and re-written into a textual format. Second, the interviews were read through in order to understand their content, and the most relevant parts of the interviews describing the socio-cultural challenges were underlined. Third, similar expressions on the cultural practices from the three interviews were collected in order to reach saturation of data. Fourth, the key expressions were summarized and coded according to the relevant themes of this research: predominant socio-cultural practices in the communities, challenges in changing the cultural schemas, technical and social adaptation of the project goals to the local communities' specifics, results of the project implementation in the communities' daily life, and evidence on shaping socio-technical imaginaries of sustainability in the region. Evidence from the interviews was compared with the information from the project reports and related articles that allowed us to improve and support the research findings.

4 Results

4.1 *Specifics of Project Implementation*

Implementation of the project and establishment of the water supply schemas required close involvement of the Finnish company technical advisers in the field. All the interviewed experts have urged that personal involvement and monitoring of the process is extremely important for project implementation. Practicalities such as access to the villages, language translation, and communication were supported by the Nepalese government agencies. Significant support was made available to the local municipalities and communities as they are the main beneficiaries of the project. Local project facilitators were employed directly by the focal company to ensure their expertise, since personal networking in developing countries is still common and relatives or friends may be promoted to positions despite not being competent for the job.

The water supply technologies used in the construction of water schemes were quite standard, but they had to be adapted to the difficult local terrains. For instance, according to respondent 1, water pumps in the mountain area, which were previously difficult to reach, have been powered with solar panels to pump the water to the disadvantaged areas. Training of the local communities to operate and secure the water supply schemes was especially important due to frequent natural disasters such as landslides, earthquakes, and heavy rains. Natural disasters have become more common as a consequence of climate change (Haapala & White, 2018; Paudel et al., 2021). Therefore, it was important to develop a functioning sustainable water supply system. For this purpose, a Water Users' Committee was created in each community that was responsible for keeping the water schemes running. Involvement of the communities in project planning and facilitation from the start was crucial since

locals are not only the main users but are also contributors to the construction process with their labor, time, and money and, therefore, sustainability of their communities. This goes in line with, for instance, Sinkovics et al.'s (2016) research who emphasize that community members need to participate in decision-making about their community development. The local committee members in Nepal were also taught to plan and construct water schemes where they might need them in the future.

Since the project beneficiaries actively participated in the construction work, they were highly motivated and completed the project tasks in record time. The construction materials were provided by the local small companies and entrepreneurs which enabled them to build capacities for continuing to supply materials for any future constructions. Conventionally, Nepalese small businesses are not interested in sustainability and, due to harsh economic conditions, they usually pursue only short-term benefits (Shrestha & Gnyawali, 2013). As respondent 2 points out, economic and social sustainability are more on the people's mind in Nepal. Additionally, as noted by respondent 3, the businesses in Nepal are concentrated in touristic places or capital area leaving the rural areas underserved. However, construction of the water supply allows entrepreneurs or small firms to participate in such development projects further. Moreover, according to respondent 2, with easier water access, women, who are traditionally responsible for carrying water to the households from far distances (Shrestha & Clement, 2019; White & Haapala, 2019), have more free time to educate themselves and even engage in some entrepreneurial activities.

The study respondents emphasized the importance of personal qualities for managing multiple stakeholders' networks. Once the representatives of a foreign company arrive at an unfamiliar country-context, it is important to be patient and respect local culture. Nepal remains a least developed country despite some progress during recent years (International Trade Centre, 2022; MPI, 2021), and it still experiences institutional voids reflected in the lack of regulations. Thus, informal interaction with local stakeholders may be needed to compensate regulatory inefficiency and to develop trust with locals in order to understand their needs and to help them develop sustainable solutions. Foreign managers need to adopt a holistic approach in order to understand power relations, local social context, different world views, etc. that will help in managing business relationships with locals efficiently (Haapala & White, 2018). Personal involvement in field work was also important in order to develop trust of the villagers and to understand better the contextual specifics of their needs.

4.2 Project Influence on Socio-Cultural Changes

The implementation of the water and sanitation project has changed the local culture and social relations in terms of decision-making and inclusivity. For instance, the project has led to changes in the roles of women and lower caste representatives who

obtained an opportunity to participate in decision-making about water schemes construction (Doty, 2016). Caste system reflects the hierarchy of power among population groups and may cause restriction of certain human rights (White & Haapala, 2018). However, gender equality and social inclusion were among the key project goals (RWSSP-WN Completion Report, 2019). Therefore, the company's technical advisers suggested that representatives of all ethnic groups, minorities, and women participate in the Water Users' Committees and related decision-making activities about construction and usage of the water schemas. Considering the dominant masculinity of Nepalese society, which is rooted in its culture (Becken et al., 2013; Shrestha, 2018; Shrestha & Clement, 2019), local women have been empowered by participation in the committees that allowed them to enhance their self-esteem and confidence (White & Haapala, 2019). Participation of women in the committee had also a rational reason: they provided their expert insight and knowledge to understand local needs of the water supply as they are responsible for the households and water delivery. Carrying heavy water vessels have negative health impacts that, as pointed by one of the respondents, could be seen in the postures of elderly women who have been carrying water their whole lives. Such inclusive planning and management of construction activities had partially addressed the issue of institutional voids by improving regulatory processes and decision-making. Therefore, bringing water sources to the villages has solved several problems at once: provided drinking water and improved health and social well-being. Established water supply has improved hygiene and sanitation practices that, however, required a specific approach.

Lack of toilets, open defecation, and washing hands are recognized issues in Nepal that are gradually being solved with the help of governmental educational campaigns and investment (UN News, 2019). Accessible water supply has contributed to solving these issues in the rural areas but, since absence of toilets was also a part of the cultural schema (ibid, 2019), the cultural attitudes and beliefs toward hygiene still needed change. Thus, educational events were organized along with other knowledge dissemination strategies in order to promote hygiene practices. Some examples of such knowledge dissemination strategies were, for instance, using colorful posters with comprehensive visuals (due to low literacy of the local population) and familiar elements of the local cultures and languages, educational movies, wall paintings about toilets usage, etc. (RWSSP-WN II, PSU, 2017). These activities indeed led to positive changes in the hygiene practices of the communities. Another central cultural issue was related to women's hygiene. As respondent 1 explained this, according to some local cultures, women must be isolated during the menstruation periods, which also prevents girls and even female teachers from attending schools. Respondent 3 adds that menstruation is a cultural taboo and that during menstruation women are not allowed to touch a water tap. Such practices are detrimental in terms of hygiene and sanitation, are associated with human rights violation, and go against the UN Right to Water and Sanitation (UN, 2010). These challenges were addressed with the water projects, where accessibility to water became "a tangible" change and people became interested in accepting new cultural schemas and improve their community. The project leaders created an

environment where all members of the communities had access to water supply despite their religion, ethnicity, and gender, whether menstruating or not. Additionally, workshops and campaigns dedicated to women's hygiene were organized by introducing sanitations pads, explaining the importance of hygiene for healthcare, and most importantly starting to discuss menstruation, breaking through the beliefs and taboos. One of the project reports indicated that more communication about hygiene made it easier to talk about harmful cultural practices and easier to change them (RWSSP-WN BRIEF, 2018).

To summarize cultural transformations catalyzed by the project implementation, first, there can be highlighted changes in attitude to hygiene and sanitation. Constructed water schemes and educational programs have improved practices such as handwashing, construction of toilets, and changed cultural prejudice about women's hygiene. The enhanced attention to the women's sanitation and healthcare became a big step to start discussion about unfavorable for hygiene cultural practices. Second, establishment of the Water Users' Committee in the communities has influenced inclusivity of their members' participation in decision-making by overcoming caste system and giving voice to women. Empowerment of women had several effects contrasting with masculine cultural schemas such as participation in the community development and decision-making about water usage, enhanced their confidence, and allowed them to engage in micro-entrepreneurship. Finally, the project has illustrated the interconnection between social, economic, and environmental sustainability that has shown the communities a direction for development. Locals have become interested in implementing cultural changes favorable for their well-being that regards social relations and technologies adaptation.

4.3 Developing Holistic Imaginary of Sustainability

The introduction of infrastructural and socio-cultural changes through the project has also changed the communities' vision of sustainability. Conventionally, understanding of sustainability in developed countries concerns the environmental dimension that is interconnected with social and economic well-being (Du Pisani, 2006; Matschoss et al., 2019). In developing countries including Nepal, sustainability acquires a different meaning, where satisfaction of basic needs and surviving poverty and natural disasters resonate more (Dögl & Behnam, 2015; Dziubaniuk et al., 2022). As it is emphasized by respondent 1, sustainability in Nepal is about people's survival. The water project helped local people to look at sustainability from a more holistic perspective. The ability to construct, support, and rebuild water schemes illustrated that long-term development is achievable and depends on the input and skills of the communities. The locals will be able to sustain their well-being even after experiencing natural disasters since now they have the knowledge and skills to address these water supply challenges. They have also learned about proper treatment of the water sources which are affected by devastating impacts of climate

change. Respondent 2 explained that they tried to introduce the concept of environmental sustainability to attract communities' attention to drying up of water sources by surveying the sources and presenting the evidence. Challenge of decreasing water resources highlighted concerns about fairness of water usage when there is not enough water for everyone. Additionally, drinking water was prioritized over, e.g., agricultural usage. Respondent 3 explained that the villagers began to take actions after obtaining knowledge about climate change effects, capacity building, risks of disasters management, etc. For instance, besides preserving water sources, they started to cultivate different types of crops resistant to climate change or to grow new non-traditional food like mushrooms. All those actions contributed to the understanding of environmental sustainability and how it should be approached in the future.

Improved hygiene and sanitation have affected general well-being of the community and contributed toward solving many health issues. However, as respondent 1 mentioned, the water project has supported and influenced other areas of peoples' lives such as food security, waste management, and more convenient and healthier lifestyle. Thus, a new imaginary of the communities related to sustainability was created, namely a longer and healthier life that opens up new possibilities and opportunities for sustainable development. Improved community well-being gave a start for a change in cultural schemas that made the community members revise their understanding of the roles of women, as well as ethnic and religion minorities for the community development. However, respondent 2 stressed that influencing the culture of deeply rooted hierarchy of power predominant in Nepal will take more time. Nevertheless, the initial steps have shown results, for instance, in the empowerment of women and minorities, and encouraging them to participate in local political life. Their fair representation in the Water Users' Committees has improved the issue of inclusion and changed cultural schemas in relation to that (Doty, 2016). Therefore, introduction of water schemes had an impact on the social and economic sustainability of the communities. These changes have opened new perspectives to the future development of the communities as they have changed their understanding of sustainable development including cultural practices previously hindering this development.

5 Discussion

Implementation of sustainability projects in developing and least developed countries is a complex process and contributing to SDG 17 "Partnership for the goals" and requires networking of multiple stakeholders who may directly or indirectly influence the local socio-cultural context (Nonet et al., 2022; van Zanten & van Tulder, 2018). Socio-cultural specifics of the regions have to be considered by international companies implementing sustainable initiatives since interaction with local communities with strong culturally rooted practices, institutional voids, and social inequalities may require adaptation to the local realities (Dentoni et al., 2018;

Koch, 2020; Romestant, 2020; Sinkovics et al., 2016). Therefore, communication in the form of dialogue is needed between international and local stakeholders to develop understanding of the local needs and developing specific solutions (Roloff, 2008b; Romestant, 2020). Projects addressing sustainability issues may also cause indirect positive changes in the socio-cultural context of the communities. While respecting local culture is important, certain associated practices could be influenced as part of the communities' objective of achieving development that is sustainable. Introducing technologies for the purpose of increasing community well-being can be part of sustainable development of the regions. These technologies have associated meanings embodied in the design, construction, and operation. However, the cultural specifics and social structure of the population in developing countries need to be considered to avoid technologies' misuse or rejection of technological advances (Sovacool & Griffiths, 2020).

The findings of this research indicate that even the implementation of simple technologies such as water supply schemes in developing countries could trigger the development of socio-technical imaginaries within communities and help shape a vision of future sustainable development through changes in cultural schemas and practices. Since socio-technical imaginaries reflect a desirable future influenced by perception of technological advancement (Jasanoff, 2015), employing the full potential of technologies may require societal changes (Konrad & Böhle, 2019). However, some unfavorable social practices or structures (e.g., hierarchy of power) may originate in established cultural schemas and may hinder social and technological development. In the case of rural Nepal, implementation of the water supply schemes caused positive changes not only in the spheres of hygiene, sanitation, health, and well-being but also in social inclusion and improvement of economic conditions. Providing access to water supply and the resulting experiences of the somewhat remote and isolated village communities with the associated benefits of such access have revealed dimensions that have enriched these communities' understanding of well-being. These added dimensions have prompted new perspectives on the existing cultural practices. The water supply project has demonstrated that future development of the communities is closely interconnected with changes in cultural schemas and practices for optimum sustainability outcomes. Thus, the imaginaries of sustainable future become initially embedded in the cultural schemas that embrace shared knowledge of how people understand the social environments they live in (Ivanova-Gongne, Torkkeli, et al., 2022). This familiarity creates a discursive space for negotiating changes required for better sustainability outcomes.

Rural communities of Nepal have a long-lasting culture and a variety of ethnical groups (Doty, 2016). It is not surprising that socio-cultural changes may be hard to implement in such environments. Among the main challenges in this case are traditional hierarchy of power among castes, patriarchal society, and discrimination of ethnic and religion minorities (Becken et al., 2013; Dziubaniuk et al., 2022; Shrestha, 2018). The water project supported by a Finnish company and its technical advisors has brought several changes in the social structure and consequently in the local cultural schemas. Participation of women and minorities in the Water User's Committees was encouraged not only for practical reasons to understand the local

needs, but improved inclusivity in decision-making regarding communities' development by drawing attention to neglected sections of these communities and emphasizing their importance and the roles they play in building a cohesive coalition for addressing complex challenges. In providing access to safe drinking water and making inclusiveness a primary feature of such access, the project triggered other ideas for change among community members, for instance, changing their cultural schemas that ranged from menstruation to minorities rights. These steps directly contribute to SDG 5 "Gender equality" and "The UN human right to water and sanitation" resolution (UN, 2010). Additionally, the project results indirectly addressed SDG 4 "Quality education" as it freed women from carrying water and use that free time to be engaged in educational programs. Poverty remains one of the key issues plaguing these communities and is instrumental in slowing down and even preventing sustainable development of rural regions (Leal Filho et al., 2021; Khavul & Bruton, 2013). The implementation of this project has activated imaginaries that have spurred women in these communities to become more engaged in microentrepreneurial activities or political life of municipalities. This in turn has allowed economic activities to flourish and become viable, thus enabling the creation of new visions for future socio-economic development.

A further transformation was related to hygiene and sanitation practices. In particular, culturally established schemas concerning water and toilet utilization (Rainey & Harding, 2005; UN News, 2019) had to be changed in order to achieve sustainability of water usage. Again, these changes were necessary for the water infrastructure to function effectively. These changes, promoted with a variety of methods undertaken by the technical advisors from the Finnish company and local governmental programs adapted to cultural specifics of the regions, consisted of using local dialects in the promotional materials and colorful pictures that captured local cultural contexts. Despite cultural attitude about water prioritizing taste and look of the water over its safety and pureness (Rainey & Harding, 2005), the technological imaginaries created through the promotional materials added dimensions of hygiene and water treatment that introduced and impacted the existing cultural reference to water. These efforts indicate and showcase the improved hygiene and sanitation practices that correspond to SDG 6 "Clean water and sanitation" addressed in the project and SDG 3 "Good health and well-being."

The water project implementation has also created awareness of environmental sustainability that is conventionally not prioritized in the developing regions (Du Pisani, 2006; Dögl & Behnam, 2015) even when, ironically, it is those particular regions that experience the worst consequences of the climate change (e.g., Dziubaniuk et al., 2022; Paudel et al., 2021). The water schemes construction have illustrated that social, economic, and environmental sustainability are interconnected. Preservation of water resources and its appropriate usage may impact the community well-being, health, agricultural practices, social inclusion, and even economic situation. Emphasizing significance of environmental concerns has also to be embedded in the cultural schemas. Natural resources like water or plants already have cultural meanings in Nepalese society (Rainey & Harding, 2005; Sovacool & Griffiths, 2020). However, their preservation and sustainable treatment

within the current context of climate change and associated challenges can be negotiated by accessing existing cultural schemas and weaving their relevance meaningfully through imaginaries embodied in the technological infrastructure. Understanding environmental challenges and figuring out ways of tackling them with the help of technologies or new cultural practices can shape a vision of the future development of communities living in balance with nature. Regarding SDGs, a response to the climate change challenges contributes to SDG 13 “Climate action” as well as to SDG 11 “Sustainable cities and communities.”

6 Conclusions

This chapter discusses how international companies can have meaningful impacts and practice sustainability within the context of developing regions, through collectively shaping socio-technical imaginaries while contributing toward changing cultural schemas and practices. Socio-technical imaginaries embrace a common understanding of technological and associated future social changes that may also require revision of the predominant cultural schemas that attribute meanings to the surrounding environment. This study emphasizes that creation of an imaginary of the future sustainable development is embodied in technological advancements that trigger the need for creating favorable socio-cultural contexts which become significant in addressing current social, economic, and environmental challenges in developing countries. The results of this empirical research illustrate various positive impacts of the water supply schemes construction in rural Nepal. Implementation of simple but vital technologies of drinking water supply to previously underserved regions has also helped to overcome cultural bias and develop imaginaries of the future sustainable community development.

6.1 *Theoretical and Managerial Contributions*

The study contributions are as follows. First, we respond to the long-standing call in the international business research for the contextualization of knowledge (Welch et al., 2022). While environmental sustainability has been the “most studied stream” in IB (Kolk, 2016, p. 28), understanding dependency of sustainability understanding on cultural schemas (see, e.g., Ivanova-Gongne, Torkkeli, et al., 2022) and local socio-cultural practices is essential in order to reach proper SDG implementation in various contexts (Dziubaniuk et al., 2022). Second, this study responds to a call for more investigation into how foreign corporations might serve as essential stakeholders for fostering sustainability in developing nations (Kolk et al., 2017). Specifically, it shows the essential role of interaction in the multi-stakeholder network involved in sustainability-related projects and creation of mutual agreement among stakeholders (de Bakker et al., 2019) and adds to the literature applying

multi-stakeholder network theory in the context of developing countries (Eweje et al., 2021). Finally, our study is, to our knowledge, one of the first studies in international business putting to the fore the concept of socio-technical imaginaries, which is essential for understanding how innovations introduced by MNCs may foster social change and affect sustainability in the contexts being implemented (see Konrad & Böhle, 2019).

For practitioners, first, this study's findings emphasize that MNEs entering developing countries may face unexpected challenges associated with their socio-cultural context. Therefore, the ability to adapt to local realities and cultivate respect toward local culture may be important for project implementations and business operations. However, certain local cultural practices can be influenced and consequently changed by means of appropriate education and knowledge by approaches that consider specifics of local culture. These approaches are often embedded in the innovations and technologies introduced for addressing specific challenges. This study also emphasizes the importance of selecting managers with appropriate individual qualities for assignments to the developing countries as they need to be open for adaptation, able to develop personal networks, and build trust with local stakeholders and have to be patient especially at the beginning of the projects. Additionally, involvement of local stakeholders at all project stages is extremely important if the project concerns their communities' development. This inclusion may help not only to understand the local needs better but to understand specifics of adaptation of technologies, communication, and managerial practices, to the socio-cultural contexts especially in the developing regions.

6.2 Study Limitations and Future Research Suggestions

This research has several limitations which also provide opportunities for future research. Our empirical study is conducted by interviewing several individuals from a developed country company and provides an "outsider" view on the case. While it is beneficial in terms of spotting cultural changes that remain unnoticed by local communities, due to the partly unconscious level of these changes, an emic or "insider" perspective is still required for a more holistic understanding of sustainable development in these communities. This corresponds with a call for more research on sustainability from developing and least developed countries perspective (e.g., Cobbinah et al., 2015; Kolk, 2016). In particular, we concur with Cobbinah et al. (2015) in that more research is required "to explore the role of local people, communities and countries in developing countries in promoting environmental conservation, reducing poverty and managing rapid urbanisation, which are pivotal to sustainable development" (p. 30). This research is also limited to exploration of one specific water supply project, whereas comparison of various sustainability-related projects in the context of Nepal would increase understanding of its development processes toward sustainability and achievement of SDGs. Furthermore, this study focuses on the perspective of individuals from one focal company. Thereby,

further research considering perspectives from various stakeholders is needed in order to understand how differences in views on sustainability are accounted for and how challenges related to differences in views are overcome.

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Why Am I (Not) Struggling? Career Prospects of Migrant Academics at British and Finnish Higher Education Institutions



Rose Quan, Pratik Arte, and Cheryl Dowie

Abstract Exclusion takes many forms, which can be based on factors relating to an individual's identity or background. Discrimination on the grounds of race, gender, sexual orientation, religion, and disability are some common forms of exclusion that can significantly impact individuals' lives, both personally and professionally. In this pilot study, we explore the career prospects of migrant academics and learn more about their opportunities and challenges. We focus on experiences of ten migrant academics' working at British and Finnish higher education institutions (HEI) across six categories, i.e. recruitment, promotion, teaching, research, leadership, and networks. While most of the interviewees felt 'disempowered' in relation to recruitment, promotion, leadership, and network building, the results were mixed for teaching and research. We believe our evidence-based interventions can help HEIs, researchers, and policymakers work together to support migrant academics navigate through their careers.

1 Introduction

13 per cent of key workers are born outside their Member State. They clean our houses and hospitals. Work in mining and construction. Operate machinery in factories. They teach our children and work on ICT technology. If all migrants stopped working tomorrow, our

The authors would like to thank the anonymous reviewers at the 2023 British Academy of Management Conference, book editors and reviewers for *Sustainable International Business: Smart Strategies for Business and Society* (Springer), and participants at the International Business Research Development Seminar at Northumbria University for their insightful comments and critical feedback on earlier versions of this chapter.

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economies would close down immediately. [Ylva Johansson, European Commissioner for Home Affairs (2021)]¹

In the context of globalisation of the education sector, universities and higher education institutions (HEI) have increasingly become international, which has resulted in global mobility of academic workforce (Pustelnikovaite, 2021; Robson, 2011). Migrant academics, understood as highly skilled first-generation migrant scholars employed by HEIs, are becoming a crucial part of the global education system and represent the section of the host country's workforce (Cañibano & Woolley, 2015). Migrant academics are in high demand as they are believed to be the key contributors to the host country's innovation and knowledge-driven growth that helps sustain the domestic economy (Morley et al., 2018). In addition to their contributions to economic growth, migrant academics fill the gap in the skilled labour market that arise either from expatriation, ageing population, or low skill set of domestic workers (Cappelli, 2015; Czaika & Parsons, 2017; European Commission, 2014).

Despite their importance and relevance to the education sector and the overall economy, migrant workers face discrimination at work and in the host country due to their background (Khan, 2022; Krahé et al., 2005; Morley et al., 2018; Perreira et al., 2010; Sabharwal & Varma, 2016). This comes at a time when HEIs are actively looking to internationalise and increase capability in a competitive academic and research landscape (Morley et al., 2018), and when economies are turning to immigrant workers to fill skills shortages (Marchante et al., 2006; Matloff, 2013). While attention has been directed towards studying migration in essential sectors such as agriculture (Scott et al., 2008), nursing (Glaessel-Brown, 1998), and social care (Goel & Penman, 2015; Moriarty et al., 2008), migration and related issues in higher education continue to be neglected. It is the aim of this chapter to address this research gap.

The question that we seek to answer is: what are the opportunities and challenges faced by migrant academics in an era where education is increasingly becoming globalised? In answering this question, we aim to contribute to Goal #10 of the United Nations (UN) Sustainable Development Goals (SDGs), which calls for reduced inequality within and among countries. One of the targets under this goal is:

Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard (United Nations, 2017, p. 14).

An indicator of this target is the proportion of the population who have experienced discrimination or harassment in the immediate past year based on the grounds of discrimination prohibited under international human rights law.² At a time when the

¹European Commission: https://ec.europa.eu/commission/presscorner/detail/en/speech_21_7393.

²The grounds of discrimination as per Article 14 of the European Convention on Human Rights include the following: (1) sex, (2) race and colour, (3) language, (4) religion, (5) political or other opinion, (6) national or social origin, (7) association with a minority, (8) property, (9) birth, and (10) other status.

European University Association (2018) considers universities as contributors to achieving the SDGs, discrimination of migrant academics remains an acute issue at British (Fernando & Cohen, 2016; Sang et al., 2013) and Finnish (Habti, 2012; Hoffman, 2007; Khan, 2022) HEIs.

We answer the research question both theoretically and empirically. Theoretically, we draw upon the social identity theory, which explains the intricacies between personal and professional experiences (Taylor, 1989). Our theoretical framework explores, analyses, and compares different career phases of migrant academics starting with recruitment, teaching and research obligations, leadership, promotion, and mobility. Empirically, we adopt an investigative case-study analysis using semi-structured interviews, a method widely used to gain a deeper understanding of participants' experiences (DiCicco-Bloom & Crabtree, 2006). The participants in our study are first-generation migrant academics working at British and Finnish HEIs.

Our choice of British and Finnish HEIs stems from the following considerations. First, there is a stark difference behind the motivation for internationalisation of British and Finnish HEIs. In the UK, internationalisation of HEIs is driven by market factors (e.g. demand-supply) (Graf, 2009). In Finland, internationalisation of HEIs is led by state-funded programmes (Jogunola & Varis, 2018). Second, British and Finnish HEIs have displayed different internationalisation trajectories. The internationalisation of British HEIs has been linked to the historical internationalisation of the British economy and the gradual expansion of the British Empire (Knapp, 2015). The internationalisation of Finnish HEIs, on the other hand, is closely linked to the recent internationalisation of the Finnish firms (Dobson & Hölttä, 2001). Third, the spread of English as 'global lingua franca' (Pennycook, 2017) has led to the emergence of Anglophone countries, particularly the UK and the USA, as top destinations for international students and academics (Dodds, 2008; Jenkins, 2014). The uniqueness of Finnish language has been a hindrance in attracting international students and academics to the Finnish HEIs (Dobson & Hölttä, 2001; Juusola & Nokkala, 2022). Fourth, British and Finnish HEIs display a different attitude towards international collaboration. Where Finnish HEIs rank among the top in Europe for their international collaborations (e.g. Erasmus and Erasmus+³ programmes) and double degree programmes (Kompanets & Väättänen, 2019), British HEIs are inclined to use individual strategies of internationalisation including franchising or agreements with educational recruitment agencies (Graf, 2009). Finally, the challenges faced by migrant academics at British HEIs are different as compared to their counterparts in Finland. Despite facing discrimination and deteriorating work conditions, migrant academics in the UK find it difficult to relocate because they gradually adopt the country's education system and lose academic skills and credentials (Pustelnikovaite, 2021). On the other hand, migrant academics at Finnish HEIs are being pushed out of the country due to the limited

³Erasmus+ programme supports teaching secondments at HEIs abroad (European Commission, 2023).

opportunities, lower pay than the native Finns, and the incessant urge to recruit a Finnish speaking candidate (Yle, 2019a). This comes at a time when there is a pressing demand for English-language education in a country where English is not an official language (Yle, 2019b; Ylönen & Kivelä, 2011).

Using data from ten open-ended semi-structured interviews, we were able to identify that migrant academics working at British and Finnish HEIs feel disempowered and discriminated when it comes to recruitment, promotion, leadership, and network building. Our findings concerning teaching were mixed where some migrant academics were in an advantageous position as they had a better understanding of the needs of international students, while others felt bullied at their HEI. In terms of research, migrant academics were encouraged to present their research at conferences, but there was a pressing obligation to acquire external fundings without adequate internal support or access to key resources.

We focus on experiences of ten migrant academics' in relation to recruitment, promotion, leadership, and network building; the results were mixed for teaching and research. We believe our evidence-based interventions can help HEIs, researchers, and policymakers work together to support migrant academics navigate through their careers.

2 Theoretical Background

2.1 Becoming and Being a Migrant Academic

Scholars have examined migrant academics from different perspectives. From a geographical viewpoint, and within the American and British contexts, studies have termed migrant academics as those who moved from the Global South to the Global North (Lawrence et al., 2014; Pustelnikovaite, 2021), while others have described them as academics moving from the Global North to the Global South (Han, 2021; Wang & Chen, 2020). To understand the migrant academics' experiences, extant literature shows becoming a migrant academic is motivated by multi-faceted drivers, and being a migrant academics, on the one hand, faces tremendous challenges (Pustelnikovaite, 2021). On the other hand, migrant academics may experience privileges in their academic careers (Skachkova, 2007).

There has been research on migrant academics in the context of moving from the Global South to the Global North; the main possible reasons include are better career prospects, access to resources and networks, political instability and lack of academic freedom, and finally professional development (Skachkova, 2007). In general, HEIs in the Global North, such as European universities, offer higher salaries and better research facilities compared to HEIs in the developing countries (Han, 2021). Secondly, some migrant academics are desired to access research resources and seek global research collaborations. Moreover, in some cases, migrant academics lack research freedom due to the insecure and unstable political environment. Finally, migrant academics moving from the Global South to the Global North may get more

chances to develop their professional skills by working in a different academic environment (Pustelnikovaite, 2021).

While becoming a migrant academic could gain new resources and more academic opportunities, it is important to note that being a migrant academic and working at HEIs abroad is a new task; many migrant academics face several challenges in their academic careers. For instance, Jiang et al. (2010) suggest that language barriers can impact on non-native speaker staff's communication and teaching effectiveness. In the social factor perspective, cultural differences between the home and the host country can create misunderstanding or conflicts with staff and students (Welikala & Watkins, 2007). Education acculturation, thus, has been often used to examine the migrant academic experiences at HEIs (Shaw & Moore, 2007). Another growing awareness is that discrimination or bias against migrant academics' immigrant status, race, or ethnicity has a negative impact on their academic career development (Pustelnikovaite, 2021; Skachkova, 2007). Social isolation and lack of interconnection with communities at different levels (i.e. university, faculty, department, and individual levels) caused by these obstacles inevitably lead to the concerns of workplace exclusion and inclusion (Miminošvili & Černe, 2022).

2.2 *Workplace Exclusion and Inclusion*

Individuals in the workplace may experience different feelings of whether they are accepted, valued, and included or excluded, marginalised, and isolated. Exclusion may take many different forms through individual's identity or background, such as discrimination based on race, gender, sexual orientation, religion, and disability. Working place exclusion and inclusion often lead to 'out-group' discrimination from 'in-group' favouritism (Miminošvili & Černe, 2022; Tajfel & Turner, 1986). Some studies find that the majority of team members with same or similar status segregate and exclude minority group members who are different from the majority in terms of ethnicity and social status (Shore et al., 2011; Tajfel & Turner, 1986). It is evident that in-group members have superiority and prestige, standing as high-status group over minority group members, thus leading to racial and ethnic inequality among working employees (Hogg, 1996; Hogg et al., 2004; Taylor & Moghaddam, 1994).

Individuals differ in their status and characteristics in terms of culture, age, and ethnicity. Status differences may shape intercultural workgroups (Turner et al., 1987). Experiences of exclusion in workplace can have a significant impact on individual's job satisfaction, productivity, and overall well-being. Marschan-Piekkari et al. (1999) studied employees' performance by sampling multinational enterprise based in Finland; their findings show that the Finnish employee group felt empowered than non-Finnish employee group in decision-making and participating in work-related activities. On the other hand, the non-Finnish group experienced disconnection and exclusion. This unequal power among the majority and minority group members explains why the majority group possesses superiority and open

access to organisational resources over minority group members (Dovidio et al., 2010; Fernando & Kenny, 2023; Nandi & Platt, 2015). In other words, power relations among racial and ethnical group can cause inequality in institutions with diversified workforce.

Research on ethnic and racial inequality within organisations has investigated different aspects, including migrant employees' struggling in workplace, relationship with high-status group, exclusion, and knowledge sharing (Cortina, 2008; Harris, 2005). One of the key reasons for this exclusion is discrimination. Literature on discrimination emphasises stereotypical behaviour, prejudices, and fears towards out-group members at work. Brüß (2008) discovered that immigrants have felt discriminated against throughout Europe. Lastly, studies have found that Western Europeans tend to behave in a stereotypical and prejudiced manner towards their peers from different cultures (Bouma et al., 2003; Pettigrew & Meertens, 1995). Alongside other theories, social identity can be used to explore this phenomenon further.

2.3 *Social Identity Theory*

Identity theory is often used to explain how life experiences can be associated with work roles. Taylor (1989) argues that identity is tied up with *who you are, what you are committed to, what you value, and what you strive for*. Identity can be constructed and developed through individual thoughts and reflections. It is always under construction in contexts that are complex and indeterminate, such as social roles and social types (Anderson & Kinneer, 2005; Kraimier et al., 2012; Taylor, 2008). Social identity theory posits that individual has multiple social identities; these identities will influence their feelings and behaviours. While identity is co-constructed (Fitzmaurice, 2013), social identity theory recommends how individuals position and reposition themselves within the community they belong to (Leibowitz et al., 2013).

Based on the social identity theory, there is growing literature that focuses on professional identity, including the identity and experiences of academics in HEIs (Fitzmaurice, 2013; Leibowitz et al., 2013). By studying how new academics construct their academic identity, Fitzmaurice (2013) suggests that earlier-career academics' identity is critically influenced by the institutions and their international peers in the discipline. However, the values, virtues, and beliefs of the individual have emerged as a significant influence on identity construction.' Due to different culture backgrounds, migrant academics may experience challenges in academia; being inexperienced in the new education system may limit their ability to participate fully in the academic community, like universities. The academic identity depends on how individuals perceive themselves, and how they are perceived and positioned by others (Clegg, 2008; Leibowitz et al., 2013).

Despite the growing body of research on academics in higher education, few studies have discussed immigrant academics as those who lack social capital and

networks in the host country and have limited options to position and reposition their social identity at European HEIs. Apparently, there are still gaps in the literature and this needs to be studied further. There is also the need for more research to examine intersectionality and its challenges, by applying different theoretical concepts and investigating this phenomenon from multi-faceted perspectives. Our study aims to contribute to the knowledge base on immigrant academics by examining how multiple identities can interact and shape the experiences of immigrant academics within the context of European HEIs.

3 Methodology

The purpose of the pilot study was to explore how migrant academics adapt themselves and develop their careers in the British or Finnish HEIs. The pilot study adopted an exploratory approach with a qualitative method being employed. The qualitative method adopted was a semi-structured interview as this enabled us to explore a phenomenon and gain in-depth information about the participants' experiences and viewpoints (Hennink et al., 2020). Moreover, the interviews were assisted by an interview guide which provided the researcher with a list of topics to explore (DiCicco-Bloom & Crabtree, 2006). Besides the interview guide, semi-structured interviews are flexible which allows the interviewers to change the direction of the interview, as well as asking probing and follow-up questions to gain more information (Alamri, 2019; Bryman & Bell, 2011). Due to the objectives of the research, quantitative methods were not appropriate as they would not enable us to fully explore the topic (Choy, 2014).

Despite the benefits of using semi-structured interviews, it is important to acknowledge the drawbacks. If there are timing restrictions during the interview, the interviewee may skip important questions or stop asking follow-up questions (Newcomer et al., 2015). To mitigate this, key questions were highlighted from each section, so the interviewer knew they had to ask them. When the research strategy was being created, four ethical considerations were considered: lack of informed consent, invasion of privacy, deception, and harm to participants. Regarding informed consent, all participants received a consent form which had to be signed. Within the form, participants acknowledged that they were able to withdraw from the study at any point. Regarding invasion of privacy, all identifiable information was removed from the transcript so the participants and their institution could not be identified. On top of this, interviewees did not have to answer any questions they did not want to. Regarding deception, all participants received an information sheet with detailed information about the study, thus removing any aspect of deception. Finally, no physical or emotional harm was caused to any participant.

3.1 Sampling

Non-probability sampling was used instead of probability sampling as the purpose of the study was to gain an understanding of the experiences and viewpoints of a group of migrant academics, instead of generalising the results (Blackstone, 2012). A purposive sampling technique was used as this was the most efficient method in terms of time and resources.

Before potential participants were contacted, an eligibility criterion was created. First, participants needed to have at least 2 years of consecutive full-time work experience as an academic in at least one HEI in the UK or Finland. We excluded individuals who were on their PhD programme at the time of this research because of the different policies governing doctoral education in the UK and Finland. Second, participants needed to be working in a country that they were not born in; i.e. the participants would need to be classified as first-generation migrants (Pottie et al., 2015). The reason for this criterion was to enable us to compare the different cultural viewpoints of the participants. Third, to capture their most recent experiences the participants should not have been on a career break, sabbatical, or paternity leave in the year immediately prior to the interview.

Sixteen participants within the authors' professional network were contacted, with ten agreeing to be interviewed, giving us a response rate of 62.5%. Out of the ten interviewees, five were working at British HEIs and five at Finnish HEIs, giving us an even sample across the two countries. The participants were contacted via email and interviews were conducted both in person and online depending on individual preference and logistics. Participants were sent an information and consent form which provided more details regarding the study. For example, the information sheet informed participants that their data would be stored on a secure server, with no identifiable information. The data will be stored for the time required for the study, i.e. approximately 36 months, unless the data is published. If the data is published, it may be stored for longer. We recorded the interviews with the consent of all participants for transcription and analytical purposes. The average interview time was 61.5 min, with the shortest being 39 min and the longest being 90 min. A summary of the interviews is provided in Table 1.

4 Analysis

Upon the completion of the ten interviews, thematic analysis was selected as it allowed us to identify patterns and themes within the text (Braun & Clarke, 2006). There are many benefits to thematic analysis such as its flexibility, especially when it comes to theoretical frameworks and research approaches, and there was an analysis process that could be followed (Braun & Clarke, 2006).

Prior to the analysis, we transcribed and carefully examined the interviews to ensure ambiguities within the text were minimised. Furthermore, all identifiable

Table 1 Summary of the interviews

| Interviewee ^a | Origin | Qualification | HEI ^a | Experience ^b | Duration (mins.) | Mode |
|--------------------------|-------------|---------------|--|-------------------------|------------------|-----------|
| 1 | West Africa | PhD (UK-A) | UK-A ^c , UK-B | 5 | 50 | In person |
| 2 | East Asia | PhD (Austria) | Austria, UK-A ^c | 6 | 67 | In person |
| 3 | East Asia | PhD (UK-C) | UK-C | 15 | 90 | Online |
| 4 | East Europe | DSc (FIN-A) | FIN-A, FIN-B, FIN-C ^c | 9 | 62 | Online |
| 5 | East Asia | PhD (UK-D) | UK-E | 3 | 39 | In person |
| 6 | South Asia | DSc (FIN-B) | FIN-B, UK-A ^c | 5 | 60 | Online |
| 7 | South Asia | PhD (UK-F) | UK-F, UK-E ^c | 9 | 63 | In person |
| 8 | South Asia | DSc (FIN-B) | FIN-B | 10 | 49 | Online |
| 9 | East Europe | DSc (FIN-B) | FIN-B, FIN-D ^c | 12 | 87 | Online |
| 10 | Middle East | DSc (FIN-E) | FIN-E, UK-G, FIN-F, FIN-G ^c | 18 | 48 | Online |

^aIdentity of interviewees and HEIs protected for ethical reasons

^bNumber of years working at British or Finnish HEIs at the time of the interview

^cInterviewee's affiliation at the time of interview

information was removed from the transcript. Once this had been completed, the analysis could begin. During step one, we familiarised ourselves with the data by reading and then re-reading the transcripts. In addition, preliminary notes were taken regarding key points.

Step two consisted of generating codes and entering them into the analysis template that had been created on Word. For example, some of the initial codes included aspects of not fitting in, being undervalued, and missing out on promotion opportunities. The third step of the analysis involved searching for and creating the main themes, including international identity, belonging, and privileges and disadvantages as a foreign-born academic. Within each theme, we entered key codes and quotes that supported each heading.

During the fourth and fifth stage, the themes were reviewed and refined, followed by the analysis write-up. Overall, there were four key themes identified. Due to the subjective nature of qualitative research, it is important to assess the validity and reliability of the results to ensure bias is minimised. Key steps were taken to minimise the bias such as having multiple individuals analyse interviews to allow for a comparison of the main themes, and questions were open-ended to avoid response bias.

5 Findings

Derived from the interview data, our analysis reveals three key themes in relation to six categories (i.e. teaching and learning, research, recruitment, promotion, leadership, and network) that illuminate migrant academics' comprehensive working experiences at European HEIs. The following four key themes emerged: *multi-faceted identities*, *empowerment*, *belongingness*, and *institutional attitude*. A summary of findings and emerging themes from our study is presented in Fig. 1.

5.1 Multi-Faceted Identities

Joining a European university in a foreign country means 'a new place, new tasks and new challenges for migrant academics' (*Interviewee 1*). According to the accounts of the interviewed migrant academics, all interviewees were aware of their multi-identity status of being a migrant academic, including the professional identity (i.e. a young researcher/an experienced academic) and social identity (i.e. the ethnicity and migrant, gender, age). The following quotations demonstrate their identified roles.

I used to work at the banking industry in my home country, now I am a young academic from Africa . . . Oh, I also worked for a German multinational enterprise based in the U.K. before I joined my first university in the U.K. (*Interviewee 1*)

I was teaching at an Austrian university before I moved to the current university in the U.K., no matter in which country, I knew that I was judged as an Asian middle-age female academic, and moving from one university to another has not changed my multi-identity. (*Interviewee 2*)

Whether (you) like it or not, the colour of your skin, hair and accent (English language) remain, and apparently you are 'different' from the natives. (*Interviewee 3*)

I work in Finland under a new name as a person of Country-A⁴ origin and the fact that the two countries have historical problems makes life difficult at work and in social circles. (*Interviewee 9*)

No matter how much the world talks about racial or religious discrimination, the truth is: it is difficult to progress in Europe as man of Arab origin. (*Interviewee 10*)

Our findings also show that migrant academics' identities influence their thoughts, feelings, and behaviours as they must navigate multicultural and social identities. While some participants feel 'fair', others believe that there is an identity crisis (i.e. coloured skin, devalued, unjust treatment) working at European HEIs as migrant academics. One participant claimed that 'despite being given three teaching awards as a junior academic, I have been defamed and devalued' (*Interviewee 7*). To echo

⁴Country identity protected upon request of the interviewee.

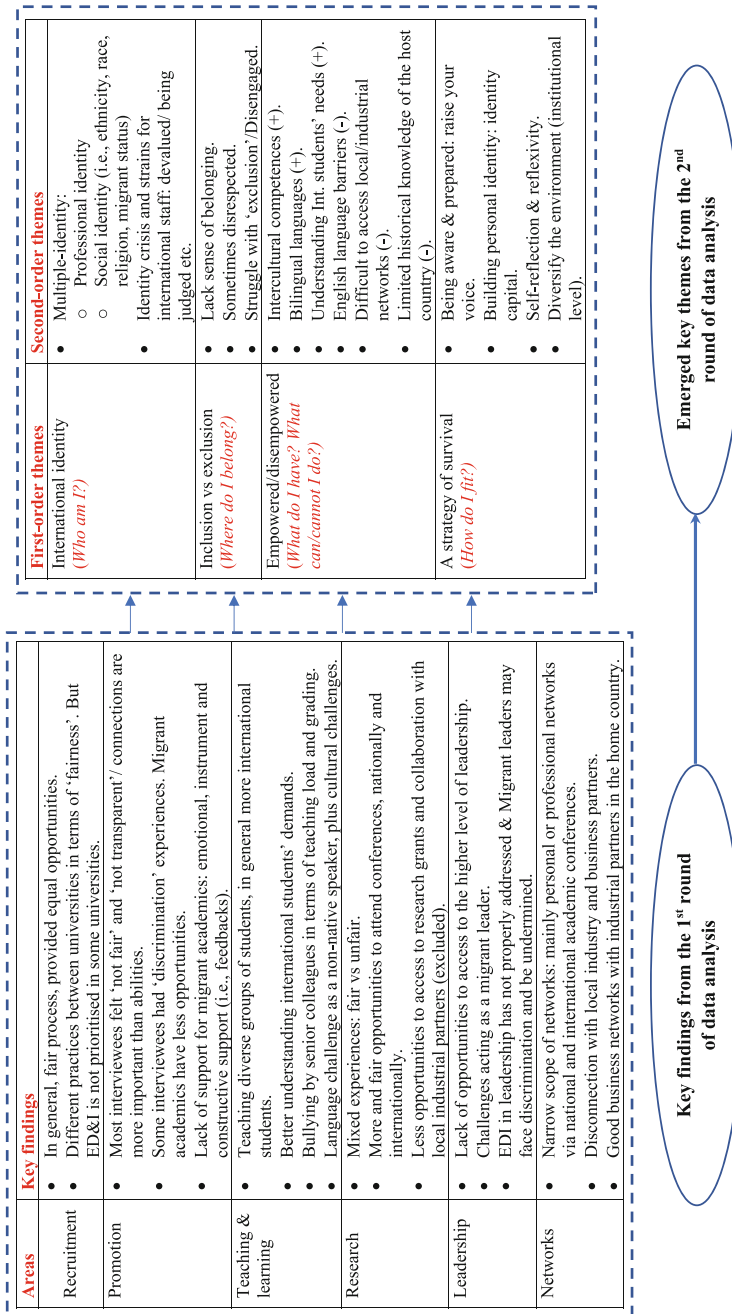


Fig. 1 Summary of findings and emerging themes

this, another two participants expressed their concerns in relation to recruitment and promotion.

It's a big capital 'NO' in terms of fairness in promotion for this type of persons (migrant academics), like me. . . . Same qualification, the native was chosen!" (Interviewee 1)

No matter how much the Finnish HEIs claim they have fair recruitment process and they are welcoming of migrants; what I found is that the recruitment and promotion process is not fair and there is a lot of nepotism and cronyism. Husband, wife, child, in-laws, friends, and list goes on. (Interviewee 6)

Having worked at both British and Finnish schools (HEIs) I can tell you that no matter where I go, I have always been given a cold shoulder when it comes to promotion. Otherwise, why would I have travelled so much? (Interviewee 10)

Interestingly, one participant pointed out that being a migrant academic for a long time at the European HEIs the individual's professional identity could be in 'flux' when the position changed in the institution. The participant has been working at the two different European HEIs for 15 years and claimed:

In my experience, your professional identity at your institution is changeable, as a migrant academic, you position and reposition yourself with time that apparently leads to different individual empowerment. (Interviewee 3)

Another experienced migrant academic at Finnish HEI echoed similar sentiments:

Having worked with Finnish colleagues for over 10 years I have learnt that as a migrant worker I will have to longer hours to be able to have some kind of a standing within the department. I tried to voice my opinion at the very beginning when I thought I was treated unfairly. It got worse afterwards as I was loaded with unproductive administrative work. I was even made to work in a tiny basement room with old files. I was coding company reports, which honestly carried no real value. Now I don't say a word and I haven't worked in a basement for the past several years. (Interviewee 10)

5.2 Empowerment: Privileges Vs Disadvantages

Having mentioned earlier, to understand the comprehensive living experiences of migrant academics in British and Finnish HEIs, we asked the participants to explore their experiences in the six categories: recruitment, promotion, teaching, research, leadership, and networks. All of them claimed that they were 'disempowered' in relation to recruitment, promotion, leadership (due to the low-ranking leadership roles), and network building. Nevertheless, regarding teaching and research the findings were mixed: partially empowered (privileges) and disempowered (disadvantages).

Despite these constraints and disadvantages of being a migrant academic, it is evident from our interview data that all participants had a certain level of individual empowerment. Among these interviewees, all participants taught more international students than home students at their HEIs; overall, they are satisfied with their teaching and supervision activities and felt that international students show more

respect comparing home students in general. As privileges, their multicultural background and international experiences (knowing the world in different ways) enable them to gain some control over their teaching activities and build research collaborations (using their world linkage), providing them the sense of ‘empowerment’ and promoting their social justice. Confirming these findings, a young African male participant shared how he gained teaching credibility in his classes:

I mainly teach undergraduate students on the subject of International Business, among them half are international students and half home students, roughly? Some home students haven’t been overseas and had a narrow mind. They only know ‘the way they are familiar’. I used my African cultural background as a privilege to broaden their mindset. Some home students are quite eager (to learn) if you are using the cases which they are not familiar with. For example, instead of using the case study of Vodaphone U.K., I used an African case in my module, and thus, the home students learned about the culture of the country, the business environment etc., so they were excited! That’s the moment you feel ‘empowered and equitable’. (Interviewee 1)

Concerning research opportunities, two interviewees working at Finnish HEIs shared similar experiences, where both were actively engaging in funding applications, partly because it was their only source of subsistence.

Subsistence is difficult when you don’t have a steady source of income. 3 months, 4 months, 6 months contracts. That’s a joke. How is one supposed to survive in this country? (Interviewee 6)

I spent over 80% of the time during my PhD studies on funding applications. I thought things would change once I graduate. They have partly. I am on a fixed-term contract, but I still actively engage myself in funding applications. Can you imagine I have cumulatively received over 180,000 euros in research funding over the past 5 years? There is not much to complain on this front because my CV shows those 180,000 euros as grant money. (Interviewee 8)

However, according to one of our interviewees, language barriers and lack of support make them feel ‘disempowered’.

You are not a native speaker of English and that’s an obstacle. Even your English is fine, you are not struggling to communicate with colleagues and students, but you have an accent. The accent seems an important indicator when students judge your teaching quality, why? I am teaching business subjects, not English pronunciation! Your teaching skills are judged by your accent. . .Stressful and feel powerless! (Interviewee 2)

Another reason that caused ‘disempowerment’ is lack of institutional support. It was evident that migrant academics moving from their home country to the foreign country face tremendous challenges, both socially (Western culture) and academically (new teaching system). According to the participants, lack of support from their institutions, such as less access to resources and heavy allocated teaching activities, discourages them to become active participants to engage other academic activities such as research. Some interviewees reflected on this by stating:

I had already published a few 3* and one 4* journal articles before I joined UK-C. Can you imagine, after 6 years, I am still a Senior Lecturer today? I used to teach 14, even 16 hours and prepare 6 different teaching activities per week, (was) allocated 4 modules in one

semester, how could I possibly find time to do my research? No, you cannot control your work and your life. (Interviewee 2)

I do feel pressurised only because I am given more teaching which eats into my research time, and this is different to domestic colleagues, like I told you I am the only one teaching more than 250+ students by myself at the business school. (Interviewee 7)

5.3 *Belongingness: Discrimination and Exclusion*

According to our interview data, the different levels of bias and discrimination exist at European HEIs. All participants claimed that this bias and discrimination had a certain impact on individual' sense of belonging to their HEIs. Based on their experiences, this contributed to a culture of exclusion and marginalisation in the university context. Our findings reveal that the two categories that marginalize migrant academics from others are 'promotion' and 'opportunities'. For example, with respect to underrepresented groups, like migrant academics, the decision-maker at the higher level in charge of promotion may unconsciously favour candidates who share similar culture background, or with certain racial stereotypes, thus leading to migrant academics' leaving their respective HEIs. The following narratives echoed this finding:

Four migrant academics from my department left the university within a span of one semester because they all failed their applications for promotions, no discrimination? I am not persuaded. (Interviewee 1)

British universities are quite good at preparing documents (laughs), everybody knows that racism is wrong, and regulations and policies are always there, but in my experience, policies and actions do not go hand in hand. Saying is one thing, doing is another. (Interviewee 3)

I see a lot of migrant workers leaving. In the last two months, there have already been two people within business management, and I don't have the statistics across the business school, but two people are leaving and they are from under-represented groups. (Interviewee 7)

Some of our participants were quite vocal about the widespread discrimination and recruitment mismanagement at their respective HEIs.

Look at our professors (at FIN-B). They are all white. They're predominantly from Finland, some 50 plus and male. When it comes to promotion and recruitment, the native employees are given preference despite there being stronger candidates of a different background. (Interviewee 4)

Several opportunities were denied for me because I wasn't Finnish. I had just graduated along with a colleague who was a native Finn. They announced a position for Assistant Professorship, collected the applications, but never announced any decision. Not even rejection. They did not even announce who had been selected. A few months later I noticed that my colleague's name plate on her door had changed from 'Postdoctoral Researcher' to 'Assistant Professor'. Does that mean she was offered the position? I'll never know. (Interviewee 6)

Echoing his experiences, another participant pointed out:

I think there are lots of opportunities that I have missed out due to my background. . .like promotion, I feel like there is nobody who is there who would encourage me to apply and guide me through the process, and all these opportunities I feel I missed out on because of my background” (Interviewee 7).

Some of our interviewees experienced the feeling of not being accepted and valued in their host societies. They did not have a strong sense of belongingness and their migrant identity was used against them to be connected with the community. This is evident in the words of two interviewees working at Finnish HEIs:

I used to work in Country-A as an Associate Lecturer at a very reputed university. I was in my third year of PhD there when I got the opportunity to visit FIN-B on a short research visit. The director liked my work and offered me a paid PhD studentship. To be honest, the offer was enormous. They baited me and I fell for it (laughs). I completed my PhD in two years because of my previous experience. That’s when the challenges started. FIN-B did not offer me a position and I entered the job market. I might have sent two dozen applications for different positions at Finnish HEIs,⁵ but I did not receive a single interview call. Unfortunately, the relations between Country-A and Finland have not been very good, which of course impacts the perception of the locals. Following advice from a close friend, I legally changed my name to sound more Finnish. Here I am, an Associate Professor at one of the HEIs that rejected me earlier. I can’t complain. (Interviewee 9)

The reality is that I am brown-skinned, and my name reveals my religion. I have been in this industry for over 15 years (18 years), and I spent 10 years as an Assistant Professor here in Finland. People (natives) who recently had their PhDs were getting promoted to Associate Professorships, Professorships, but I was never promoted. Seeing some fellow countrymen, three years ago I adopted a Finnish surname and last year I was offered an Associate Professorship at FIN-F. Everything is in the name! (Interviewee 10)

Our findings suggest that the discrimination faced by migrant academics also takes the shape of ridiculing or threatening colleagues. For instance, one of the interviewees highlighted being treated disrespectfully by senior colleagues due to her background.

(Some) senior level staff have even spoken down to me and told me ‘In the U.K., this is how we do things’, it’s like I’m mentally challenged because of my background. (Interviewee 5)

Another interviewee discussed how he was threatened for failing native students.

It happened once that I failed a student’s thesis because it was of a very poor quality. Next day the programme manager walked into my office without knocking the door and started questioning me as to why I had failed the student. My answer was simple, ‘She has not put in any effort. There is no evidence of critical thinking. The framework is weak, research questions are not aligned with the objectives. . .’ I explained all the reasons for not awarding a grade, but the research manager was pushing me to pass. She said, ‘Well (name), you see you will be out of contract by September, and you do need a new one for your visa. So, you will need to show that you have graded (passed) a few theses.’ That was it. I never failed a student (again). (Interviewee 8)

⁵Upon questioning further, Interviewee 9 revealed that he could not consider non-Finnish HEIs for family reasons, nor could he return to his home country for political reasons.

Evidently, our findings show that identity and belongingness are interconnected to each other and have a considerable impact on migrant academics' working experience (both positive and negative) in the context of British and Finnish HEIs.

5.4 Context Matters: The Institutional Attitude

The final key theme emerged in our research is how individual HEIs' attitude towards migrant academics would affect their experiences working at the HEIs. Beyond the individual level, the participants felt that the practices of equality, diversity, and inclusion (EDI) of the university do have an impact on migrant academics' working experiences. HEIs' lack of inclusive policies and practices that support EDI can contribute to 'negative feelings' and 'discourage' migrant academics making connections with those HEIs. The following narratives from our participants confirm this finding:

When I looked at the profiles of the faculty members (UK-A), I found a lot of diversity than FIN-C, that's why I moved to UK-A. (Interviewee 6)

Compared to the UK-F, I think they weren't fair. I remember the UK-E's job was in the same area I was doing work, so I was really excited, and my supervisors told me that this job was literally created for you, but I think there could have been some unconscious bias there. (Interviewee 7)

The participants had a strong feeling that some HEIs promote EDI better than others, and HEIs advocating diversity make them feel more valued and accepted. However, some HEIs claimed that they are 'EDI driven', but do not implement EDI policies and conduct EDI activities at the operational levels. For instance, Interviewee 7 addressed her concerns: 'I would say that co-chairing the EDI committee at the business school or at the university (UK-E) is more tokenism. Are issues really considered? No. Are people heard regarding their EDI issues. No.'

5.5 A Comparative Assessment of British and Finnish HEIs

As highlighted in the introduction section, British and Finnish HEIs are intrinsically different in terms of their approach towards internationalisation and treatment of migrant academics. In this section, we draw upon the experiences of migrant academics to formulate a comparative assessment. We observed both similarities and differences across the six categories of migrant academics' experiences working at British and Finnish HEIs. In terms of promotion, leadership, and networks, the participants echoed similar experiences where they had few promotions and obtained leadership progression, and the scope for networking with native colleagues was limited, and they resorted to networking through their personal networks in their home countries or professionally outside the country of HEI.

Table 2 Comparative summary of migrant academics’ experience at British and Finnish HEIs

| | British HEIs | Finnish HEIs |
|-------------|---|--|
| Recruitment | (a) Recruitment criteria is standardised (b) May or may not be open towards recruiting migrant academics | (a) Recruitment process is not transparent: Criteria are not clear, and candidates are not informed of the decision (b) Closed towards migrant academics: Applicants within personal networks are preferred |
| Promotion | Native academics preferred over migrant academics | Native academics or applicants within personal networks are promoted over migrant academics |
| Teaching | Migrant academics are overloaded with teaching | (a) Workplace bullying: Migrant academics are pressurised to pass the students (b) Migrant academics are deprived of teaching opportunities |
| Research | Less scope for research as workload is heavily inclined towards teaching | Migrant academics are pushed towards external research funding for subsistence as formal HEI contracts are inadequate or not offered |
| Leadership | Lack of opportunities to climb the leadership ladder | Lack of opportunities to climb the leadership ladder |
| Networks | Narrow scope of networks: Mainly personal or professional networks outside the country of HEI | Narrow scope of networks: Mainly personal or professional networks outside the country of HEI |

British and Finnish HEIs’ approach towards recruiting migrant academics displays a divergent pattern. British HEIs tend to have a standardised approach towards recruitment, but based on our findings, they may or may not be open towards recruiting migrant academics. Out of the ten participants in our study, three relocated to the UK from Europe (1 from Austria and 2 from Finland) because of the availability of job opportunities. Finnish HEIs display a less transparent recruitment process where candidates tend to be selected based on family ties or personal networks with the recruiters. Moreover, job applicants at Finnish HEIs are not always informed of the recruitment decision (especially negative decisions).

In terms of research and teaching, British and Finnish HEIs are mirror opposites. On the one hand, migrant academics at British HEIs are overloaded with teaching, which has a cascading effect on their research output. On the other hand, migrant academics at Finnish HEIs are deprived of teaching opportunities and are pushed towards external funding for subsistence as formal HEI contracts are dubious. Our findings also reveal that Finnish HEIs offer less protection to migrant academics in terms of workplace bullying. We provide a comparative summary of British and Finnish HEIs in Table 2.

6 Summary and Discussion

Various phases in the internationalisation of higher education have emerged since medieval times (De Wit & Merz, 2012). HEIs that originated in the eighteenth and nineteenth centuries had a national focus, mobility of students and scholars was not encouraged, and Latin as the universal language of instruction was displaced by vernacular languages (Hammerstein, 1996). In the early part of the twentieth century, political events led to the development of the Institute of International Education (IIE) in the United States in 1919, the Deutscher Akademischer Austauschdienst (DAAD) in Germany in 1925, and the British Council in the UK in 1934 (Thondhlana et al., 2020). The ERASMUS European programme to support student and staff mobility within Europe was developed in the second half of the 1980s, to nurture a sense of European citizenship and view international education as a cooperative initiative. The UK, on the other hand, adopted a competitive direction in 1981 under the Thatcher Government, where full-cost fee coverage was introduced for post-secondary education as a means of recruiting income-generating international students (De Wit, 2017). Similar models soon followed in other English-speaking nations, and a competitive direction set the agenda for HEIs in the latter half of the 1990s.

Globalisation has resulted in higher education institutions requiring to implement internationalisation agendas in recruiting across national boundaries (Hsieh, 2012), and this in turn has fuelled an increasing demand for specialised labour (King, 2002). Studies have also discussed that many host societies across Europe seldom approve the presence of foreigners in their midst (Brüß, 2008). However, with HEIs becoming more diverse and globalised, and internationalisation becoming a subject of immense interest, accepting scholars from different cultural backgrounds seems to contribute positively to university rankings (Hazelkorn, 2015).

While few studies have discussed the career prospects associated with migrating to a foreign country (Sang et al., 2013), the dominant consensus in the literature discusses the disadvantages and obstacles faced by migrant academics in their careers (Salaff et al., 2002; Turchick Hakak & Al Ariss, 2013). Our pilot study supports this notion empirically by providing insights into the experiences of first-generation migrant academics working at British and Finnish higher education institutions. The results from our study show that migrant academics face significant challenges and barriers that disempower and demotivate them from reaching their full academic potential. While reality points to an invidious situation, where migrant academics are expected to fill a cross-border void in European HEIs, the limited access to resources and opportunities that favour non-migrants provides gloomy career prospects for highly skilled migrant academics who cross national boundaries (Fernando & Cohen, 2016). Some of these misplaced opportunities relate to research grants, promotions, teaching, leadership, and mobility. This calls into question the internationalisation agendas attached to academia, which requires further assessment. Furthermore, the suboptimal standards within higher education institutions in adopting inclusive policies and practices have made it extremely difficult for

migrant/immigrant academics to balance their personal and professional commitments, overall leading to job dissatisfaction, and their inability to integrate into the academic community. While this has also been empirically supported in our study, some suggestions on inclusive practices can include language assistance, teaching and research support, cultural integration programmes, and other similar resources that can help migrant academics navigate through their respective academic environments.

Experiencing prejudices based on one's ethnicity, nationality, immigration status, and/or accent can be detrimental to an individual's well-being (both physical and mental) and career prospects. It is thus important for HEIs to recognise and address these challenges, instead of providing blanket forms of support that do not challenge the disadvantages associated with migrant academics' career prospects. On the other hand, the steadfast resilience migrant academics reveal in facing these challenges equips them with a higher degree of excellence in their fields (Shah et al., 2010).

7 Conclusion

In our pilot study, we highlight some of the limitations around the specific and effective interventions that HEIs could embrace in understanding the challenges faced by migrant academics. We suggest that future studies on migrant academics take an intersectional approach to better understand how factors such as race, gender, immigration status, and ethnicity can shape academics' experiences. A comparative analysis could also be adopted to identify similarities and differences faced by migrant academics across different countries and regions. Gaining better insights into the challenges faced by migrant academics can help HEIs, researchers, and policymakers to work together and incorporate evidence-based interventions in the policies and practices, thereby creating an inclusive academic environment, where all its members can fully participate and engage successfully in all aspects of academic life, i.e. teaching, research, and service.

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Immigrant Entrepreneurs Out of the Shell? An Investigation of Individual Characteristics on the Propensity to Seek External Advice



Alessandra Tognazzo , Simona Leonelli , and Diego Campagnolo 

Abstract Immigrant entrepreneurs are typically categorized as disadvantaged as they often lack access to the networks that can provide financing, information, and external advice which are fundamental for the survival and sustainability of their businesses. Analysing a sample of 238 entrepreneurs (119 ethnic and 119 native entrepreneurs) of SMEs located in the metropolitan city of Milan (Italy), the chapter focuses on individual factors that are linked to ethnic firm owners' decisions to seek external advice. The findings of this study suggest that ethnic entrepreneurs' gender, education, and individual resilience impact their behavioural choices regarding the use of external sources of advice. Our study contributes to the under-researched area that links individual resilience, entrepreneurs' characteristics, and behaviours, and it sheds light on the importance of human capital and gender-based differences for mobilizing social capital in disadvantaged contexts.

1 Introduction

“It never rains, but it pours”, as the proverb says, crises majorly impact the health, education, and jobs of already vulnerable immigrants and their families, as well as their social integration. For example, if we consider the COVID-19 pandemic, while most European countries re-opened their economy after the confinement phase, the effect on the labour market is likely to go forward, especially for small and medium sized enterprises (SMEs) characterized by limited capital stock and slack resources. According to the OECD (2020), immigrants appear to be particularly affected by the downturn since they face a number of particular vulnerabilities, like permit condition, the perceived additional administrative burden, fewer networks, and language

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difficulties. Enhancing “sustainable migration” policies means also sustaining ethnic communities and their businesses (Dhaliwal & Adcroft, 2005; Scott & Irwin, 2009).

Despite their high social vulnerability, ethnic minority communities and immigrant businesses are important change agents in regional development (Ma et al., 2013; Smallbone et al., 2010), they may contribute significantly to the economic growth of society and employment rate (Dhaliwal, 2008), and they are a particular context in which entrepreneurship should be studied (Stoyanov & Stoyanova, 2022). In 2018, firms run by foreigners were more than 600,000 in Italy, 100,000 in the Region of Lombardy, and 50,000 in Milan, which represent the 16% of all firms in Milan (Camera di Commercio Monza Brianza Lodi, 2019). In Lombardy and in Italy, firms controlled by foreigners have been growing at a 20% rate in 5 years and at a 34% rate in Milan. Milan, in particular, is a major immigrant gateway for Chinese, whose immigration was among the oldest inflows, which means that it started in the late 1930s. As Ceccagno (2003) reports, Italy has witnessed the growth of immigrant self-employment, even if it is modest in comparison with other European countries with a large migrant population. Free access to self-employment had been denied for a long time—from 1990 to 1998—to immigrants coming from countries with which Italy had not signed reciprocal agreements, and these regulations impeded the development of some strong entrepreneurial groups, including the Chinese, which are now among the largest ethnic entrepreneurial groups in the country and in economic hubs like Milan. Chinese are known for their high entrepreneurial propensity, but also for their residential segregation of co-ethnics in urban neighbourhoods and the clustering of business activities in local Chinatowns (Hatziprokopiou & Montagna, 2012). Conducting a business is a hard job, which becomes even harder for immigrants who typically seek self-employment and survival, rather than growth and profitability (e.g. Joonas, 2011). Moreover, immigrants who start and manage a business face more challenges than indigenous entrepreneurs. They have to overcome the so-called liability of foreignness, which arises from firms’ unacquaintedness with the culture, politics, and economics of new environments (Irastorza & Peña, 2014). Besides having to learn a language, adapt to a different environment, and face potential discrimination issues, immigrants often lack the social as well as the mainstream business networks that can provide financing, information, and external advice (Rezaei, 2007; Sequeira & Rasheed, 2006), which is one of the entrepreneur’s most essential resources as it is part of their social capital (Williams & Krasniqi, 2018).

Within SMEs and entrepreneurship research, the importance of social ties of entrepreneurs has been well recognized (e.g. Vissa & Chacar, 2009), and asking for external advice is considered a fundamental resource of entrepreneurs’ social capital (Hernández-Carrión et al., 2017; Williams & Krasniqi, 2018). Entrepreneurs are inclined to seek outside advice when they lack certain knowledge within their companies. Both social and business networks can be sources of such information (Watson, 2007). In some cases, the sources are informal such as peers and competitors (Galloway et al., 2021), while in other cases, they are formal networks, such as public and private advisory services (e.g. Cumming & Fischer, 2012). Both sources are recognized as important for SMEs’ growth (Schoonjans et al., 2013). For the

sustainability of minority ethnic start-up companies, with their distinctive support needs, such advice is also especially critical (Kremel, 2016; Ram & Smallbone, 2003).

However, so far, in SMEs' entrepreneurship research, limited attention has been paid to immigrant entrepreneurs' advice-seeking behaviour. In particular, to date we know little about the individual factors that underlie immigrant owners' decisions to seek external advice. Even when entrepreneurs recognize a deficit in their knowledge, some may perceive social or psychological costs to seeking help, and thus some individuals may be generally less inclined to proactively seek advice (Studdard & Munchus, 2009). In this chapter, we aim to answer the research question: which individual characteristics of the immigrant entrepreneur influence the propensity to seek external advice? We will focus on three individual characteristics, namely immigrant entrepreneurs' gender, level of education, and individual resilience, and explore the link with seeking external advice. Even if these characteristics may be linked to a disadvantaged condition of the entrepreneurs (Maalaoui et al., 2020; Martinez Dy, 2020), from our literature review, they received scant attention in the advice-seeking literature so far; in particular, the interaction effect of these individual factors has been overlooked.

Our work aims to contribute to SMEs' entrepreneurship literature in three different ways. First, we advance existing studies on resilience literature by focusing on personal characteristics and behaviours of immigrant entrepreneurs (Hartmann et al., 2022) investigating into possible conditions of disadvantage (Maalaoui et al., 2020; Martinez Dy, 2020). Second, we contribute to the literature about the role of network for ethnic minorities and immigrants' SMEs (e.g. Dabić et al., 2020; Mendy & Hack-Polay, 2018; Scott & Irwin, 2009). Finally, we contribute to advance the literature about gender differences in immigrant entrepreneurship (De Luca & Ambrosini, 2019).

In the next paragraph, we will present the review of the relevant literature. Then, we will describe the methodology adopted and the results obtained. Finally, we will discuss our conclusions, together with the main limitations, and further research and policy suggestions.

2 Literature Review

2.1 *Immigrant Entrepreneurship*

"Immigrant" is the term given to a person who was born abroad, and immigrant entrepreneurship is generally understood as the undertaking of entrepreneurial activities by immigrants (Dabić et al., 2020). Because one of the characteristics often associated with ethnic entrepreneurs is being an immigrant, it is common for researchers to use the term "immigrant entrepreneurship" as another term for "ethnic entrepreneurship" (Collins, 2003; Tavassoli & Trippl, 2019). Some authors refer to "immigrant entrepreneurs" as individuals who have actually immigrated over the

past few decades, excluding members of ethnic minority groups who have been living in the country for several centuries, while “ethnic” is a broader term which includes immigrants and minority groups. Here we consider ethnic entrepreneurs as a group of people bounded and distinguished by a common cultural heritage who move from their home countries to destination countries, as immigrants, opening businesses there. Given this definition, in this chapter, we will use the words “ethnic” and “immigrant” as synonyms.

In the stream of literature regarding immigrant entrepreneurship, scholars devoted less attention to the individual entrepreneur in European countries, such as Italy (Aliaga-Isla & Rialp, 2013; Indarti et al., 2021), and in particular to the characteristics that may be related to behaviours such as seeking external advice, where “external” refers to outside the firm boundaries (e.g. accountant, business advisors, family members, or friends).

Indeed, data show that international migratory inflows are an important phenomenon in a number of countries. In 2018 in Italy, the rate of foreign immigrants per 1000 inhabitants was equal to 4.7% (ISTAT, 2019). Worldwide, migrant settlement is predominantly concentrated in specific demographic attractive regions, in particular in the metropolitan agglomerations of the developed world. In the metropolitan city of Milan, which can be considered one of the main economic centres in Italy, migrant residents represent the 15% of the resident population, and this percentage increases by four percentage points if we consider only the city of Milan (Città Metropolitana di Milano, 2020).

2.2 Advantages and Drivers of External Advice-Seeking Behaviours for Ethnic Entrepreneurs

Previous studies have focused on the impact of external advice upon business performance; for instance, they considered the positive effect on firms’ sales growth, patents, finance, and alliances (Cumming & Fischer, 2012) and on the capabilities that may favour small firm internationalization (Cumming et al., 2015). Advisors and owners have disparate worldviews (Dyer & Ross, 2007), and advice becomes impactful for the business, but also from an emotional point of view, given that limited sized businesses imply a strict connection between the entrepreneur and the business (Samujh, 2011). External advice is also an important component of entrepreneurs’ social capital, which refers to the resource endowment of entrepreneurs in terms of the nature of social relations and how they can be drawn upon for individual benefit (Hernández-Carrión et al., 2017; Williams & Krasniqi, 2018).

Examining the need and use of business advisory services by immigrant entrepreneurs, some studies in England have examined ethnic businesses, business advisory services, and ethnic businesses’ special need: through interviews with established ethnic company owners, these needs were identified as access to capital, lack of confidence among business owners (and potential owners), cultural issues

influencing business support, language barriers, bureaucratic effects, and racial prejudice (Ram & Smallbone, 2003). Dhaliwal (2008) conducted an empirical investigation by interviewing South Asian, African/Caribbean, and Korean SMEs' owners in England. The study aimed to explore the perspectives and encounters of these minority ethnic businesses in relation to existing business support agencies. The empirical evidence derived from their study underscores the imperative for support providers to possess a keen understanding of the multifaceted nature of minority ethnic groups. The aforementioned firms have predominantly obtained external support from individuals within their social network, such as friends, family, accountants, and bank managers. However, their awareness of the various forms of public support available to them appears to be limited. Furthermore, it is worth noting that a considerable number of these companies exhibit a preference for ethnic networks over mainstream ones. This observation implies that mainstream agencies would benefit from establishing collaborative partnerships with ethnic-based organizations. Most SMEs draw on external support, and their main advisors are external accountants (Bennett & Robson, 1999). In a survey of 380 Australian SMEs, Carey (2015) underlines that entrepreneurs perceive external accountants' advice as having a positive impact on firm performance. In line with this, a study by Scott and Irwin (2009) analysing a sample of 400 SMEs in the UK found a positive link between the use of external advice and the ability to raise bank finance. In their analysis, men and black and minority ethnic participants were more likely to use family and friends for advice, whilst women were twice as likely as men to use government-backed sources of external advice. Ethnic business owners were defined as "discouraged advisees" given their limited engagement in using reliable sources, possibly believing them insufficiently tailored or that they would provide inappropriate advice.

Formal advisory sources may also be an important source of advice. For example, in studying a local Asian business community in the UK, Fallon and Berman Brown (2004) found that the role of the business support agencies is crucial to the success or failure of ethnic minority business in the growth phase of its development. The authors suggest a closer work between the agency supporting these ethnic minority companies and mainstream company networks. Birdthistle (2019) found that established ethnic entrepreneurs in Ireland would seek support and advice from formal agencies in Ireland given that they know they have deficiencies in their skillset; however, very often they did not avail of these programmes because they were unaware of them. Moreover, Campagnolo et al. (2022) showed the value of developing a broad network for ethnic entrepreneurs to support adversity planning, which implies collecting information and resources through building connections beyond their immediate social networks.

The external network of contacts may also include the ethnic network, which has been examined by several studies as a way for immigrants to overcome disadvantages in the host society, which may include exclusion from job opportunities in the general labour market, unemployment and underemployment, and lack of host country language skills, education, and specific career-related skills which may persist for very long time periods (e.g. Sequeira & Rasheed, 2006). Discussing

formal and informal networks, some studies claim that immigrant entrepreneurs depend more on informal social networks of family, friends, and the immigrant community than on formal, mainstream business networks (Dana et al., 2020; Watson, 2007). The ethnic network has been described as one of the most important resources for ethnic entrepreneurs (Gomez et al., 2020; Tavassoli & Tripl, 2019).

External advice providers may also refer to competitors and peers. For example, other business owner-managers were the second most commonly cited source of useful information in Chell and Baines' (2000) survey of service micro-businesses in two British cities. A more recent study, by Galloway et al. (2021), who surveyed over 600 small business owners in the US Midwest, found that their reliance on advice from direct and indirect peer competitors depends on both their perceptions of advisors' ability to provide quality advice and whether they perceive their industry environment as more competitive or more cooperative. However, these studies did not consider the ethnicity of the interviewees.

Some studies have reported gender differences in entrepreneurs' networking; for instance, Studdard and Munchus (2009) proposed that women entrepreneurs would be more likely to proactively seek help compared to men, because they would be less likely to perceive social costs to doing so. Other research in gender role socialization revealed that men generally sought help less than women, given that normally men feared that seeking help would construe weakness, vulnerability, and potential incompetence (Lee, 2002). A study in Sweden found that women owners of start-ups and young companies use more and different business advisory services than men owners (Kremel & Yazdanfar, 2015), and trust advisors differently (Scott & Irwin, 2009), whereas only a few studies have found negligible differences between men and women when factors such as firm size and education are controlled (Robson et al., 2008; Watson, 2012).

Rotger et al. (2012) describe the processes in business advisory service as knowledge acquisition/enhancement. The entrepreneur, who understands the need for knowledge, looks for opportunities to acquire knowledge from an experienced outsider. The learning process that occurs between the entrepreneur and the experienced outsider leads to a combination of tacit knowledge, primarily based on experience, and explicit knowledge, primarily based on theories and facts. Even if entrepreneurs' external advice-seeking is primarily theorized to be driven by knowledge gaps (West & Noel, 2009), education is linked to human capital, which is one of the fundamental resources for SMEs in general and especially for ethnic ones (Scott & Irwin, 2009). Bosworth (2009) found that English rural microbusiness owners with higher levels of education were more likely to engage with networking groups and with professional providers of business advice. Similarly, in a study of SMEs, Smallbone et al. (1993) found that entrepreneurs with higher education and a desire to grow their companies often turn to external consultants. In other words, human capital is linked to social capital.

From all the above, we can state that:

Hypothesis 1 There is a positive relationship between female immigrant entrepreneurs and seeking external advice.

Hypothesis 2 There is a positive relationship between immigrant entrepreneurs' education and seeking external advice.

2.3 The Moderator Role of Individual Resilience

Resilience is an increasingly used concept within the academia to highlight the ability of human beings to adapt to and overcome adversities, especially at times of crisis and therefore is essential to sustainability. As the etymological origin recalls, resilience means to 'bounce', from the Latin *resilio* or *resilire*.

Individual resilience can be defined as a personal quality that enables one to thrive in the face of adversity (Connor & Davidson, 2003). Resilience is used to characterize individuals who are able to easily and quickly overcome setbacks related to their life and career aspirations (Zautra et al., 2010), and it is an important quality for entrepreneurs (Prah & Sibiri, 2021; Sutcliffe & Vogus, 2003). Resilience as a process is the result of the interaction between entrepreneurs and their environment (Korber & McNaughton, 2018). Thanks to resilience, entrepreneurs have the knowledge, abilities, and skills to help them face the uncertain future with a positive attitude, with creativity and optimism, and by relying on their own resources. Entrepreneurs are resilient when faced with adverse circumstances and are able to develop and mobilize resources they often did not suspect they possessed; among these resources we may also include social ones. According to Reinmoeller and Van Baardwijk (2005), entrepreneurs who possess a high level of resilience demonstrate a remarkable capacity to continuously rejuvenate themselves through the implementation of innovative strategies. Moreover, these individuals exhibit exceptional adaptability in the face of various and unpredictable fluctuations in the business landscape. Individuals with a notable level of self-esteem exhibit a strong sense of self-assurance, wherein they perceive themselves as being in command of their circumstances and are unafraid of encountering setbacks or failures. In the face of adversity, individuals demonstrate resilience by rebounding and emerging even stronger than before. This is attributed to their ability to extract valuable lessons from their experiences, acknowledge and rectify their mistakes, and effectively adapt to the evolving environmental conditions (Cannon & Edmondson, 2005). Here, we consider individual resilience as a stable trait of the individual, even if we cannot completely rule out the possibility that it might change under rare circumstances (e.g. specific psychological interventions) (Leys et al., 2020).

If we consider the variability of resilience based on gender, on one side, universal stereotypical gender roles for women characterized by warmth (Cuddy et al., 2011) include the physical and emotional caretaking of others, maintaining a focus on relationships and being emotional, showing submissiveness in romantic relationships, and prioritizing the needs of others above one's own (i.e. self-silencing)

which generate gender inequality and positions of women dutiful to men (Prentice & Carranza, 2002). This may make them vulnerable and not inclined to be resilient, especially when this is associated with a socially disadvantaged ethnicity which may make them even more marginalized (Jefferis & Theron, 2018). On the other side, in her seminal work on feminine resilience, Jordan (2023) posits that women's adherence to gender stereotypes, particularly their inclination towards nurturing and caregiving roles, plays a crucial role in fostering resilience. According to Jordan, women and girls who embrace these culturally aligned behaviours are more likely to establish and maintain positive relationships with others, thereby unlocking the key to their resilience. Furthermore, it has been observed that women and girls derive a sense of empowerment from establishing positive relationships with others, leading to enhanced levels of courage and self-esteem.

We hypothesize that when women immigrant entrepreneurs' resilience is high, they could rely on their individual capacity to bounce back rather than on other people's advice; while when their resilience is low, they may seek help.

Hypothesis 3 Immigrant entrepreneurs' individual resilience moderates the relationship between female immigrant entrepreneurs and seeking external advice.

We also suggest that the interaction of ethnic entrepreneurs' resilience and education, which are mainly related to entrepreneurs' human capital, could be related to seeking external advice (i.e. social capital) such that, when education is low, individual resilience may be needed in order to facilitate asking for advice, while it is not as necessary when education is high. In other words, when ethnic entrepreneurs have a low level of education, individual resilience may counterbalance their formal knowledge gaps and vice versa. On the contrary, it could also be that entrepreneurs' individual resilience amplifies the relationship of education and seeking external advice, because resilient and well-educated entrepreneurs recognize the advantages of seeking external advice more than those in the low-resilience low-education condition. In sum, given that, we state the existence of a moderation effect:

Hypothesis 4 Immigrant entrepreneurs' individual resilience moderates the relationship between education and seeking external advice.

3 Methods

3.1 Sample

In this chapter, we use the data collected through the research project 'Building Better Business Resilience', a 2-year (2018–2019) study funded by the JPMorgan Chase Foundation. The research project was aimed at studying the ways in which SMEs experience and respond to adversity (Campagnolo et al., 2019). In particular,

we base our analysis on data collected in the Metropolitan city of Milan, in the Italian Region of Lombardy. Firms controlled by foreigners constitute an important part of the Italian national economy given that they provide employment to 102,000 employees in Milan and 200,000 in Lombardy, and almost one million in Italy (Camera di Commercio Monza Brianza Lodi, 2019).

The procedure we have done is the following. First, we extracted all SMEs between 3 and 99 employees located in the Metropolitan area of Milan from the AIDA database, which is a Bureau Van Dijk database containing data on all limited liabilities Italian firms. The survey was administered between January 2019 and March 2019, using computer-assisted telephone interview (CATI) to collect 600 observations randomly extracted from the universe of 7319 firms. The final database contains 533 valid observations. The respondents were all entrepreneurs or leaders of their businesses. Among these, 119 were immigrant entrepreneurs, defined as entrepreneurs coming from Asia, Africa, Central and South America, and other European countries. In order to balance the sample of immigrant entrepreneurs with those of native entrepreneurs, we randomly selected the sample of native entrepreneurs with 119 observations. For this reason, the final sample was composed of 238 entrepreneurs.

Our research primarily centred around individual entrepreneurs, as they serve as the central driving force behind their businesses, both during normal operations and when faced with challenging circumstances. Entrepreneurs and top-level executives possess a comprehensive understanding of their actions and the rationale behind their decisions and are adept at articulating the outcomes of their endeavours, both successful and unsuccessful. Due to the aforementioned factors, it is imperative to acknowledge that the utilization of secondary data may not comprehensively encapsulate the intricate complexities associated with small and medium-sized enterprises' crises.

3.2 *Measures*

3.2.1 **Dependent Variable**

External advice measures if immigrant entrepreneurs have sought external advice or information on any matters affecting their business in the last 12 months. We have coded the answer as a dummy variable assuming the value one if the entrepreneurs asked for external advice and zero otherwise. In this study, we assumed that external advice refers to the entrepreneurial firm perspective and includes all types of advice, information, suggestion, and help as potential assistance, independent of the source of advice whether given by a public-funded organization, private consultant, or informally such as family or friends.

3.2.2 Independent Variables

Gender is a dummy variable that assumes the value 1 if entrepreneurs are females and zero if they are males.

Education is a five-point ordinal variable from “no formal qualification” (1) to “Master’s degree or PhD” (5).

Individual resilience was measured using the Connor-Davidson Resilience Scale (10 items), a unidimensional 10-item scale that showed a high level of consistency and loaded onto one very strong factor. This short version of the scale 25-item scale (Connor & Davidson, 2003) was extracted and validated using several representative samples, and research shows that it presents good psychometric properties among entrepreneurs (Manzano-García & Calvo, 2013). It is also good for assessing resilience of low-income population (Coates et al., 2013). Respondents indicated their level of agreement using a five-point Likert scale from strongly disagree (0) to strongly agree (4). A confirmatory factor analysis was conducted for the individual resilience variable. On the basis of the loadings and the eigenvalues (range 0.465–0.640), one factor solution appeared to be the best fit of the data, confirming previous research. We checked for multicollinearity and common method variance using the variance inflation factor (VIF). The values of all our variables range between 1.35 and 1.551. The values were below 3.300, and this indicates the absence of collinearity and common method bias in our variables (Kock, 2015). Cronbach’s alpha was equal to 0.811, which is higher than the required threshold of 0.70 (Nunnally & Bernstein, 1994). Finally, even Rho_A and composite reliability (CR) assumed values above 0.800, which are higher than the accepted value of 0.700 (Fornell & Larcker, 1981). Detailed results are reported in Table 4 in the Appendix.

3.2.3 Control Variables

Consistent with the extant literature, we have also included a number of control variables that have been found by prior studies to be correlated with external advice, level of education, and individual resilience. Specifically, we controlled for variables at individual and firm levels. At the individual level, we controlled for entrepreneurs’ gender and age.

Entrepreneur age is a five-point ordinal variable from “less than 35 years old” (1) to “more than 65 years old” (5). The age of the business owner may be especially relevant for external advice-seeking, especially if we consider online possibilities. For instance, a Swedish study (Lundström & Kremel, 2011) shows that entrepreneurs younger than 31 years demand advisory services to a higher degree than elderly company owners. Because younger entrepreneurs are likely to be more comfortable and familiar with online networking tools, they should be more likely to seek peer advisors online and to utilize social media and online forums for general peer assistance.

Country of origin is assessed with four dummy variables that each associated with a continent (i.e. Asia, Africa, Central and South America, and other European countries).

Firm age is a five-point ordinal variable ranging from “less than 3 years old” (1) to “more than 21 years old” (5). Newer businesses are the most likely to access beneficial advice from government and professional sources (e.g. West & Noel, 2009), as new and nascent ethnic entrepreneurs need the most advice (e.g. Sequeira & Rasheed, 2006). However, while owners of newly established small businesses may perceive advice as quite valuable, they may also have greater difficulty finding suitable advisors in comparison to established owners who have had more time to build relationships (Kuhn & Galloway, 2015).

Firm size was measured considering the number of employees of each firm and ranging between 1, i.e. firms have “less than 4 employees”, and 5 if they have “between 50 and 99 employees”. Several earlier studies confirm that company size is a deciding factor—the larger (measured in employees) the company is, the more the company tends to use business advisory services (e.g. Robson & Bennett, 2000)—while other studies (e.g. Ramsden & Bennett, 2005) contradict this finding.

3.3 Data Analysis

Given the dichotomous nature of our dependent variable, we used logit regression models, employing Stata 16 as statistical software, to estimate the relationship between immigrant entrepreneurs’ characteristics and their behaviour.

4 Results

Table 1 presents the differences between immigrant and native entrepreneurs and their firms. The sample of immigrant entrepreneurs is less male dominated than the one of natives. Immigrants are younger and possess a lower educational level than their Italian counterparts. Immigrants’ SMEs belong mainly to the service industry (95.80%), while those of the Italians also belong to the construction industry (47.90%). Finally, immigrants’ SMEs are between 6 and 10 years old (47.06%), and 49.58% of them have less than four employees, while natives’ SMEs are more than 21 years old (51.26%) and have between five and nine employees (38.66%). All the differences between the two samples are statistically significant. Furthermore, regarding the nationality, the majority of immigrant entrepreneurs come from China (57.98%), from other Asian countries (13.45%), and from Africa (11.76). In particular, this result is highly representative of the condition of the metropolitan area of Milan in which a high percentage of immigrants from China and other Asian countries are present (ISTAT, 2019). Table 2 shows in detail the entrepreneurs’ countries of origin and when they have moved to Italy. In particular, the 12.61% of

Table 1 Characteristics of the surveyed sample

| | Immigrant entrepreneurs | | Native entrepreneurs | | Chi square | Sig. (two-sided) |
|---------------------------------------|-------------------------|--------|----------------------|--------|------------|------------------|
| | <i>N</i> | % | <i>N</i> | % | | |
| Entrepreneurs' characteristics | | | | | | |
| Gender | | | | | 5.455 | 0.020 |
| Male | 48 | 40.34 | 66 | 55.46 | | |
| Female | 71 | 59.66 | 53 | 44.54 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |
| Age | | | | | 25.229 | 0.000 |
| ≤35 years old | 19 | 15.97 | 10 | 8.40 | | |
| 36–45 years old | 51 | 42.86 | 27 | 22.69 | | |
| 46–55 years old | 38 | 31.93 | 47 | 39.50 | | |
| 56–65 years old | 10 | 8.40 | 24 | 20.17 | | |
| >65 years old | 1 | 00.84 | 11 | 9.24 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |
| Education | | | | | 46.068 | 0.000 |
| None | 6 | 5.04 | 2 | 1.68 | | |
| Elementary or middle school | 45 | 37.82 | 6 | 5.04 | | |
| High school | 54 | 45.38 | 80 | 67.23 | | |
| Bachelor's degree | 9 | 7.56 | 11 | 9.24 | | |
| Master's degree or Ph.D. | 5 | 4.20 | 20 | 16.81 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |
| Country of origin | | | | | | |
| Other European countries | 4 | 3.36 | | | | |
| Central and South America | 4 | 3.36 | | | | |
| India, Bangladesh, Pakistan | 3 | 2.53 | | | | |
| China | 69 | 57.98 | | | | |
| Other Asian countries | 16 | 13.45 | | | | |
| Middle East | 9 | 7.56 | | | | |
| Africa | 14 | 11.76 | | | | |
| Tot | 119 | 100.00 | | | | |
| SMEs' characteristics | | | | | | |
| Industry | | | | | 82.587 | 0.000 |
| Service | 114 | 95.80 | 49 | 41.18 | | |
| Manufacturing | 3 | 2.52 | 13 | 10.92 | | |
| Construction | 2 | 1.68 | 57 | 47.90 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |
| Age | | | | | 87.048 | 0.000 |
| ≤3 years old | 13 | 10.92 | 5 | 4.20 | | |
| 4–5 years old | 30 | 25.21 | 10 | 8.40 | | |
| 6–10 years old | 56 | 47.06 | 16 | 13.45 | | |
| 11–20 years old | 15 | 12.61 | 27 | 22.69 | | |
| >21 years old | 5 | 4.20 | 61 | 51.26 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |

(continued)

Table 1 (continued)

| | Immigrant entrepreneurs | | Native entrepreneurs | | Chi square | Sig. (two-sided) |
|-------------------|-------------------------|--------|----------------------|--------|------------|------------------|
| | <i>N</i> | % | <i>N</i> | % | | |
| Size (#Employees) | | | | | 67.256 | 0.000 |
| ≤4 | 59 | 49.58 | 17 | 14.29 | | |
| 5–9 | 9 | 7.56 | 46 | 38.66 | | |
| 10–19 | 13 | 10.92 | 36 | 30.25 | | |
| 20–49 | 36 | 30.25 | 16 | 13.45 | | |
| 50–99 | 2 | 1.69 | 4 | 3.35 | | |
| Tot | 119 | 100.00 | 119 | 100.00 | | |

Table 2 Country of origin and years of permanence in Italy of the immigrant entrepreneurs (reference year 2019)

| | < 5 years | 5–9 years | 10–14 years | 15–19 years | > 20 years | Tot |
|-----------------------------|--------------|--------------|--------------|--------------|-------------|---------------|
| Europe | 4 100.00% | – | – | – | – | 4 100.00% |
| Central and South America | 4 100.00% | – | – | – | – | 4 100.00% |
| India, Bangladesh, Pakistan | 2 66.67% | 1 33.33% | – | – | – | 3 100.00% |
| China | 3 4.35% | 21 30.43% | 24 34.78% | 18 26.09% | 3 4.35% | 69 100.00% |
| Other Asian countries | 1 6.25% | 7 43.75% | 5 31.25% | 2 12.50% | 1 6.25% | 16 100.00% |
| Middle East | – | 3 33.33% | 3 33.33% | 1 11.12% | 2 22.22% | 9 100.00% |
| Africa | 1 7.14% | 2 14.29% | 5 35.71% | 3 21.43% | 3 21.43% | 14 100.00% |
| Tot | 15 12.61% | 34 28.57% | 37 31.09% | 24 20.17% | 9 7.56% | 119 |

the ethnic entrepreneurs in our sample have been in Italy for less than 5 years, the 28.57% between 5 and 9 years, the 31.09% between 10 and 19 years, and the 7.56% for more than 20 years, which reflects the past inflows of migrants from China to Italy. Indeed, Chinese migration in Italy has started in the 1930s and Milan was their main destination. Their settlement in the area, currently known as Milanese Chinatown, was marked by a strong entrepreneurial attitude: They started as traveling vendors, selling trinkets and then silk neckties, often as the first step towards a more stable entrepreneurial career and upward socioeconomic mobility. Even if after the Second World War, Italy's Chinese population declined dramatically, since the early 1980s, a new flow of migrants has been directed towards Italy and Milan, and, by the early 1990s, Italy had developed into a key destination for Chinese migrants in southern Europe (Christiansen, 2005). Like early Chinese migrants,

entrepreneurialism is the driving force of contemporary Chinese migration to Italy, and Milan remains the main destination for Chinese migrants. Milan's Chinatown today is an ethnic economic and commercial enclave in a semi-gentrified area near the city centre, where businesses owned by Italians and foreign nationals coexist (Hatziprokopiou & Montagna, 2012).

Descriptive statistics and Spearman's correlations of the examined variables of the two samples are reported in Table 5 and Table 6 of the Appendix. Spearman's rank-order correlation is useful to measure the strength and direction of the association between continuous and categorical variables. Results show that all the significant correlation values of our variables lie below 0.50. Thus, we can state that there is a small correlation between them in both the samples.

Again, we have controlled for multicollinearity and common method variance using the VIF and the tolerance values. Both values are close to 1 (1.20 for the immigrant entrepreneurs sample and 1.10 for the native entrepreneurs sample), which means that no common method variance affected our model (Kock, 2015).

The analysis of the logit estimation, separated for immigrant and native entrepreneurs, is reported in Table 3. Model 1 includes the control variables, Model 2 introduces the main independent variables, and, finally, Model 3 and Model 4 include the hypothesized moderator effects.

Results reported in Model 2 of the immigrant entrepreneurs show that firm's age is related to asking for external advice. In detail, the higher the firm's age, the lower is the likelihood to ask for external advice ($\beta = -0.646, p < 0.1$). Regarding the entrepreneur's country of origin, results show that Asian and African entrepreneurs are more likely to avoid external advice ($\beta = -3.348, p < 0.05$ and $\beta = -3.658, p < 0.05$, respectively). We can also notice a positive relationship between entrepreneurs' gender and the likelihood to ask for external advice ($\beta = 1.547, p < 0.05$), underlining that women are more likely to ask for external advice than men. Our Hypothesis 1 is therefore supported. Regarding our second variable of interest (i.e. entrepreneurs' education), entrepreneurs who have higher levels of education are more likely to seek external advice than those with a low education ($\beta = 1.120, p < 0.01$). This result supports Hypothesis 2, stating that entrepreneurs' educational level is positively linked to their choice to ask for external advice. Model 3 again underlines the positive relation among entrepreneurs' gender ($\beta = 1.763, p < 0.05$) and individual resilience ($\beta = 1.125, p < 0.01$) and the choice to ask for external advice; however, the moderator term (i.e. entrepreneurs gender multiplied by entrepreneur's resilience) ($\beta = -1.450, p > 0.1$) is not significant, allowing us to reject Hypothesis 3. Finally, Model 4 includes the second moderator term (i.e. entrepreneurs education multiplied by entrepreneur's resilience). That model confirms the positive relationship between education and the likelihood to ask for external advice ($\beta = 1.183, p < 0.01$) and shows a negative and significant relationship between individual resilience and seeking for external advice ($\beta = -5.134, p < 0.05$). Moreover, the moderator term (i.e. entrepreneur's education multiplied by entrepreneur's resilience) has a positive and significant relationship with seeking external advice ($\beta = 1.326, p < 0.05$) supporting Hypothesis 4. This suggests that entrepreneurs' resilience moderates the relationship between

Table 3 Results of regression analyses for native and immigrant entrepreneurs separately

| <i>Dependent variable: external advice</i> | <i>Immigrant entrepreneurs</i> | | | | <i>Native entrepreneurs</i> | | | |
|--|--------------------------------|---------------------|----------------------|---------------------|-----------------------------|-------------------|-------------------|-------------------|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 1 | Model 2 | Model 3 | Model 4 |
| <i>Constant</i> | 4.945** (2.276) | 0.599 (3.038) | 0.873 (3.022) | 0.820 (3.306) | -0.075 (1.063) | -1.548 (1.381) | -1.491 (1.388) | -1.702 (1.406) |
| <i>Control variables</i> | | | | | | | | |
| Entrepreneur age | -0.456 (0.371) | -0.488 (0.437) | -0.451 (0.430) | -0.537 (0.462) | -0.079 (0.174) | -0.050 (0.178) | -0.027 (0.180) | -0.044 (0.178) |
| Entrepreneur's country of origin | | | | | | | | |
| EU | Omitted | Omitted | Omitted | Omitted | - | - | - | - |
| Central and South America | -2.581 (1.673) | -2.902 (1.971) | -3.228* (1.981) | -3.417 (2.149) | - | - | - | - |
| Asia | -3.385*** (1.276) | -3.348** (1.608) | -3.671*** (1.595) | -3.732** (1.791) | - | - | - | - |
| Africa | -3.590** (1.603) | -3.658** (1.868) | -4.287** (1.964) | -3.674* (1.922) | - | - | - | - |
| Firm age | -0.588* (0.340) | -0.646* (0.347) | -0.702** (0.358) | -0.620* (0.373) | 0.022 (0.167) | -0.001 (0.170) | -0.018 (0.171) | -0.016 (0.171) |
| Firm size | -0.174 (0.240) | -0.443 (0.305) | -0.453 (0.304) | -0.572* (0.325) | 0.273 (0.198) | 0.275 (0.204) | 0.264 (0.204) | 0.291 (0.206) |
| <i>Main effects</i> | | | | | | | | |
| Gender | | 1.547** (0.776) | 1.763** (0.832) | 1.809** (0.843) | | -0.059 (0.391) | -0.079 (0.395) | -0.059 (0.392) |
| Education | | 1.120*** (0.406) | 1.125*** (0.405) | 1.183*** (0.411) | | 0.189 (0.211) | 0.198 (0.213) | 0.225 (0.219) |
| Individual resilience | | -0.021 (0.485) | 1.097 (1.076) | -5.134** (2.395) | | -0.170 (0.187) | -0.069 (0.218) | 0.549 (1.049) |

(continued)

Table 3 (continued)

| <i>Dependent variable: external advice</i> | Immigrant entrepreneurs | | | Native entrepreneurs | | | | |
|--|-------------------------|----------|-------------------|----------------------|---------|---------|-------------------|-------------------|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 1 | Model 2 | Model 3 | Model 4 |
| <i>Moderating effect</i> | | | | | | | | |
| Gender × individual resilience | | | -1.450 (1.260) | | | | -0.362 (0.425) | |
| Education × individual resilience | | | | 1.326** (0.620) | | | | -0.172 (0.247) |
| Log likelihood | -41.498 | -34.920 | -34.223 | -32.718 | -81.138 | -80.284 | -79.912 | -80.038 |
| LR chi2 | 10.96* | 24.11*** | 25.51*** | 28.52*** | 2.48 | 4.19 | 4.94 | 4.68 |
| Pseudo R2 | 0.117 | 0.257 | 0.272 | 0.304 | 0.015 | 0.025 | 0.030 | 0.028 |

Notes: The standard error is in parentheses

Immigrant entrepreneurs = 119; Native entrepreneurs = 119

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

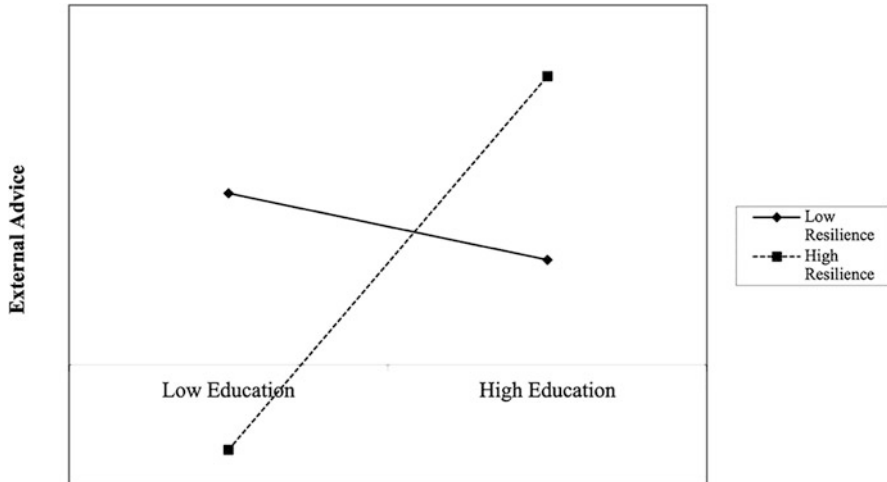


Fig. 1 Interaction graph of individual resilience with education on external advice for the immigrant entrepreneurs' sample (source: the authors)

entrepreneurs' education and the choice to ask for external advice. In other words, entrepreneurs' high level of individual resilience amplifies the link between entrepreneurs' education and seeking external advice. Figure 1 illustrates this relationship. Entrepreneurs with higher levels of resilience ask more for external advice if they possess a high level of education compared to entrepreneurs with low resilience. While entrepreneurs with low educational levels are more likely to seek external advice if they also have a low individual resilience.

This interaction was probed by calculating the Johnson–Neyman interval and performing a simple slopes analysis. As for the Johnson–Neyman interval, results show that when individual resilience assumes values greater than -0.414 , the slope of entrepreneur education predicting the choice to ask for external advice is significant ($p < 0.05$) (Fig. 2). In the immigrant sample, individual resilience assumes values between -1.398 and 1.366 ; therefore, for resilience values between -0.413 and 1.366 , the slope of entrepreneur's education predicting the choice to ask for external advice is significant. Performing the simple slope analysis, we tested the conditional effects of individual resilience at three age levels, one standard deviation below the mean ($0.589(0.393)$, $t = 1.501$, $p > 0.1$), equal to the mean ($1.521(0.493)$, $t = 3.088$, $p < 0.001$), and one standard deviation above the mean ($2.452(0.828)$, $t = 2.963$, $p < 0.001$) (Fig. 3). These results confirm that entrepreneurs' education is significantly related to the choice to ask for external advice when resilience assumes medium and high levels.

In the sample of native entrepreneurs, no significant results are shown, underlining the importance of studying this phenomenon particularly for immigrant entrepreneurs.

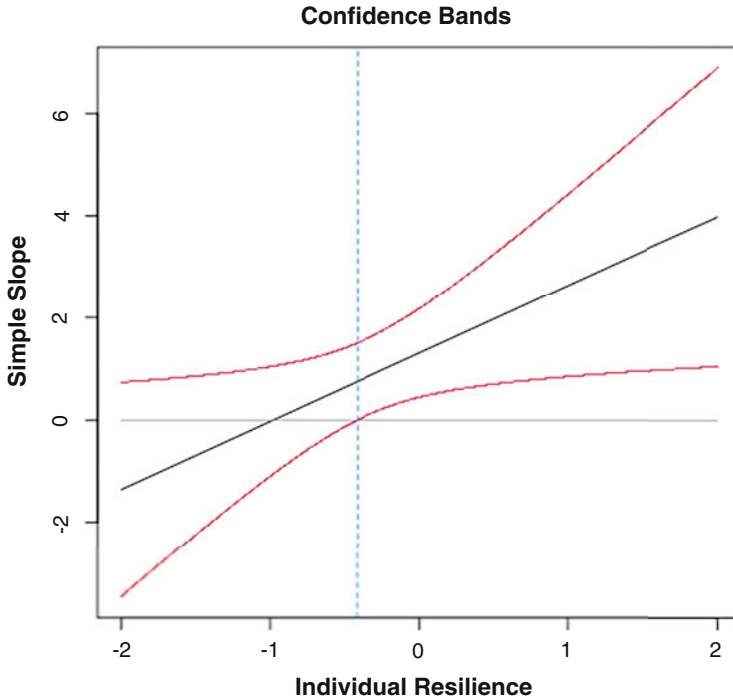


Fig. 2 Johnson–Neyman (JN) graph for the moderation of resilience in the relationship between the education and external advice for the immigrant entrepreneurs’ sample (source: the authors)

4.1 Robustness Check

Since the average of entrepreneurs asking for external advice is only 13.45%, we re-estimate our models using the “rare events” estimator, i.e. the penalized maximum likelihood estimation suggested by Heinze and Schemper (2002). Table 7 in the Appendix shows that the coefficients change only slightly, confirming all our results.

5 Discussion

In this chapter, we focused on ethnic entrepreneurship. Since immigration has risen and will probably continue to rise, there is also potential for ethnic entrepreneurs to contribute significantly to Western national economies and to become more sustainable, as ethnic minority entrepreneurship plays an influential role and makes an important contribution to the competitiveness of the local community and employment (Dhaliwal, 2008). External advisors are considered important to assist and sustain ethnic entrepreneurship, because they can provide knowledge, not available

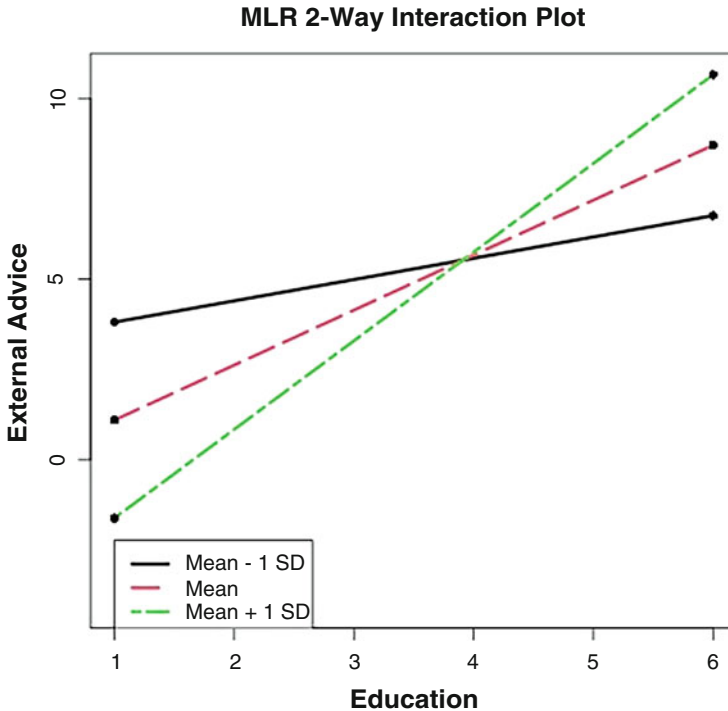


Fig. 3 The simple slope graph for the model relating education, external advice, and their interaction for the immigrant entrepreneurs' sample (source: the authors)

within the company especially when the size of the business is limited. By taking the entrepreneur's perspective, this study investigated whether the individual characteristics of entrepreneurs, namely gender, education, and individual resilience, are linked to seeking external advice.

The study findings show that ethnic women entrepreneurs are more likely to ask for external advice than their male counterparts, which means that Hypothesis 1 was confirmed. This is in line with previous research results reported in our literature review that support the notion that there are gender differences in entrepreneurs' networking, proactive seeking behaviours, socialization, and trust in external advisors (Kremel & Yazdanfar, 2015; Lee, 2002; Scott & Irwin, 2009; Studdard & Munchus, 2009). In the literature, the subordination of women to patriarchal control mechanisms has then been framed as a structuring element of ethnic economies. Our study challenges the view that immigrants' enterprises are considered as a male kingdom, in which women, if present, are mainly involved as a cheap and flexible workforce (Morokvasic, 1991). Rather, it also underlines the importance of women for opening their firm to opportunities in the external environment, by seeking advice. A recent qualitative study conducted in Italy agrees that creating networking initiatives is particularly relevant for female immigrant entrepreneurs (De Luca &

Ambrosini, 2019). From a gendered anti-discriminatory perspective, self-employment has begun to be considered as a “very proactive response to labour market exclusion” (Mirchandani, 2002, p. 25) because ethnic women—often considered only as passive victims of discrimination—are able to react by engaging in independent activities requiring dynamism and initiative (Morokvasic, 1991).

The second hypothesis of our study, which proposed a positive relationship between education and external advice-seeking behaviour, was also confirmed. Especially for SMEs, advice is a source of ideas, innovation, change, and tacit knowledge. However, ethnic entrepreneurs even when equipped with a high education may not have desire or trust access to external social networks. Our results, in line with previous studies (e.g. Bosworth, 2009; Scott & Irwin, 2009), challenge this view and support the notion that human capital supports proactive help-seeking behaviours among ethnic entrepreneurs. One would expect to find an immigrant type of enterprise located in a marginalized lower-class area trading mostly as a kiosk or selling ethnic products. Such thinking is not out of order because ethnic businesses, traditionally, were relatively small in size and scope, usually operated by owners with a low level of education and skills (Bates et al., 2018). This would be influenced by stigma and intolerance of the dominant society towards immigrants. Such a traditional concept of immigrant entrepreneurship has gradually evolved, and today’s modern ethnic entrepreneurs possess higher education and skills, which allow them access to a larger pool of resources, such as capital, customer, and labour (Bates et al., 2018).

Moreover, our results show that, contrary to our Hypothesis 3, individual resilience does not impact on the relationship between female gender and seeking external advice. This finding contradicts the prevalent literature on resilience of women, and it may be explained by the fact that the effect of gender on seeking external advice prevails over the effect exerted by individual resilience.

Last but not least, we found a moderation effect of ethnic entrepreneurs’ education and resilience on seeking external advice, which supports our Hypothesis 4. In theory, individual resilience in some sense could be seen as a substitute for education, meaning that ethnic entrepreneurs might learn through their experiences, rather than through a formal education path at school. However, this seems not to be the case. In our research, the human capital (i.e. formal education level) of the entrepreneur may be seen as belonging to an internal pool of resources, which may amplify the effect of the stable ability to overcome obstacles (i.e. individual resilience) and allows ethnic entrepreneur seeking external help, which may increase the entrepreneurs’ social capital by providing new opportunities, original views, and useful suggestions.

5.1 Theoretical Contributions

We believe that this study contributes to SMEs’ entrepreneurship literature in three different ways. First, the study contributes to resilience literature (Hartmann et al.,

2022) with its focus on the personal characteristics and behaviours of resilient immigrant entrepreneurs. Immigrant entrepreneurship is an under-researched area (Welter et al., 2017), which deserves attention to generate understanding of the sources of disadvantage experienced by immigrants and their firms.

Second, it adds to the discussion about the importance for ethnic business sustainability of advice-seeking among ethnic minorities and immigrants' SMEs networks (e.g. Dabić et al., 2020; Mendy & Hack-Polay, 2018; Scott & Irwin, 2009) shedding light on the importance of human capital for mobilizing social capital. Finally, given that the gender dimension in immigrant entrepreneurship in Italy has to date been largely overlooked (De Luca & Ambrosini, 2019), this study contributes to support the importance of considering gender-based differences in future studies about social capital in disadvantaged contexts.

5.2 Policy Implications

The current study may have implications for policymakers, which are strictly related to the context analysed. To overcome the current crisis and reach long-run sustainability, some countries have provided some specific targeted support measures. For example, Germany has implemented a number of specific support measures for migrant entrepreneurs, including an online platform and a network of dedicated caseworkers (OECD, 2020). By showing that ethnic entrepreneurs have different external advice-seeking behaviours, our findings inform policymakers when designing specific support systems and suggest that "one size does not fit all". Conversely, according to our data, policies aimed at supporting this segment of entrepreneurs should vary on the basis of their individual features including gender, education, and individual resilience. Exploiting women ethnic entrepreneurs' propensity to ask for external advice may also help reaching males, who appear to be more sceptical to open up. Poorly educated entrepreneurs with low resilience are more likely to ask for advice than highly resilient entrepreneurs under the same educational situation. On the contrary, highly educated entrepreneurs are likely to search for external advice when characterized by high individual resilience. These results suggest that tailoring practices that improve education without simultaneously stimulating individual resilience can generate partial results.

5.3 Limitations and Future Directions

In our study, we were not able to study any financial measures because many financial measures were not available among this group of SMEs. It would have been interesting to examine financial aspects of these companies, for instance to explore if external advice has an effect on firm performance. Another limitation to the current study is that immigrants were regarded as one group, since this group in

fact is heterogeneous. Given the limited size of the firms in our sample, we focused only on the entrepreneurs. However, future studies may consider other variables related to the composition of the entrepreneurial team such as the quality of human capital and other characteristics which may impact on decision-making processes like trust. The goal of our chapter is to examine specifically ethnic entrepreneurs, given their specific characteristics; still in further studies it would be interesting to consider a comparison with non-ethnic entrepreneurs. We expect some differences; for instance, for low-educated entrepreneurs it might be easier asking for external advice in their home country, because of the low impact of cultural barriers.

We argue that these are general limitations and that future studies should acknowledge them and consider differences due to, for instance, immigrant country of origin, different sector of activities, and different kind of advice provider. In short, future studies could use more explanatory variables and collect more detailed data on the dependent variable also on a longitudinal basis to improve the findings and generalizability of this study.

6 Conclusion

Ethnic entrepreneurs are typically categorized as disadvantaged and confined in enclaves, so external advice might be fundamental for the survival and sustainability of their businesses. Analysing a sample of entrepreneurs of SMEs located in the metropolitan city of Milan (Italy), the chapter focuses on individual factors that are linked to ethnic firm owners' decisions to seek external advice. Overall, this study suggests that ethnic entrepreneurs' gender, education, and resilience play a role in influencing their behavioural choices regarding the use of firm's external sources of advice.

Appendix

Table 4 CFA results for the reliability and validity of the Connor-Davidson Resilience Scale

| Items | Factor loading | VIF | Cronbach's alpha | Rho_A | CR |
|-------|----------------|-------|------------------|-------|-------|
| | | | 0.811 | 0.841 | 0.846 |
| 1 | 0.576 | 1.397 | | | |
| 2 | 0.640 | 1.531 | | | |
| 3 | 0.492 | 1.268 | | | |
| 4 | 0.465 | 1.235 | | | |
| 5 | 0.484 | 1.258 | | | |
| 6 | 0.587 | 1.435 | | | |
| 7 | 0.569 | 1.428 | | | |
| 8 | 0.583 | 1.422 | | | |
| 9 | 0.632 | 1.551 | | | |
| 10 | 0.520 | 1.347 | | | |

Notes: $n = 238$

VIF variance inflation factor, CR composite reliability, AVE average variance extracted

Table 5 Descriptive statistics and correlation immigrant entrepreneurs' sample

| | Mean | Std. dev. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------------|--------|-----------|------------|------------|------------|------------|-------|--------|---|
| 1. External advice | 0.521 | 0.502 | 1 | | | | | | |
| 2. Gender | 0.445 | 0.499 | – 0.021 | 1 | | | | | |
| 3. Education | 4.328 | 0.931 | 0.103 | 0.012 | 1 | | | | |
| 4. Individual resilience | –0.198 | 1.054 | – 0.075 | 0.237* | 0.051 | 1 | | | |
| 5. Entrepreneur age | 2.992 | 1.070 | – 0.039 | – 0.025 | – 0.108 | 0.084 | 1 | | |
| 6. Firm age | 5.084 | 1.169 | 0.055 | – 0.094 | 0.099 | – 0.043 | 0.001 | 1 | |
| 7. Firm size | 3.529 | 1.007 | 0.137 | 0.083 | 0.166 | 0.095 | 0.012 | 0.315* | 1 |

Notes: $n = 119$

* $p < 0.05$

Table 6 Descriptive statistics and correlation native entrepreneurs' sample

| | Mean | Std. dev. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|-------|-----------|--------|-------|--------|--------|--------|--------|-------|--------|--------|--------|----|
| 1. External advice | 0.134 | 0.343 | 1 | | | | | | | | | | |
| 2. Gender | 0.597 | 0.493 | 0.123 | 1 | | | | | | | | | |
| 3. Education | 3.630 | 0.973 | 0.278* | – | 1 | | | | | | | | |
| | | | | 0.013 | | | | | | | | | |
| 4. Individual resilience | 0.198 | 0.685 | 0.010 | 0.068 | 0.049 | 1 | | | | | | | |
| 5. Entrepreneur age | 2.353 | 0.879 | – | 0.077 | – | 0.208* | 1 | | | | | | |
| | | | 0.075 | | 0.143 | | | | | | | | |
| 6. Country of origin: EU | 0.034 | 0.181 | 0.200* | – | 0.216* | 0.124 | 0.191* | 1 | | | | | |
| | | | | 0.037 | | | | | | | | | |
| 7. Country of origin: Central and South America | 0.034 | 0.181 | 0.063 | 0.058 | 0.071 | – | – | – | 1 | | | | |
| | | | | | | 0.067 | 0.022 | 0.035 | | | | | |
| 8. Country of origin: Asia | 0.815 | 0.390 | – | 0.050 | – | – | – | – | – | 1 | | | |
| | | | 0.066 | | 0.070 | 0.189* | 0.154 | 0.392* | | | | | |
| 9. Country of origin: Africa | 0.118 | 0.324 | – | – | – | 0.195* | 0.091 | – | – | – | 1 | | |
| | | | 0.068 | 0.072 | 0.076 | | | 0.068 | 0.068 | 0.767* | | | |
| 10. Firm age | 3.731 | 0.980 | – | 0.107 | 0.028 | 0.082 | 0.111 | 0.147 | – | – | 0.208* | 1 | |
| | | | 0.169 | | | | | | 0.092 | 0.198* | | | |
| 11. Firm size | 3.269 | 1.382 | – | 0.086 | 0.087 | 0.017 | 0.068 | 0.201* | – | – | – | 0.298* | 1 |
| | | | 0.077 | | | | | | 0.003 | 0.030 | 0.147 | | |

Notes: $n = 119$ * $p < 0.05$

Table 7 Robustness check using Penalized Maximum Likelihood Estimation for the immigrant entrepreneurs' sample

| <i>Dependent variable: external advice</i> | Model 1 | Model 2 | Model 3 | Model 4 |
|--|----------------------|---------------------|---------------------|---------------------|
| <i>Constant</i> | 4.431** (2.124) | 0.545 (2.733) | 0.933 (2.690) | 0.571 |
| <i>Control variables</i> | | | | |
| Entrepreneur age | -0.410 (0.352) | -0.388 (0.394) | -0.348 (0.386) | -0.434 (0.423) |
| Entrepreneur's country of origin | | | | |
| EU | Omitted | Omitted | Omitted | Omitted |
| Central and South America | -2.144 (1.448) | -2.321 (1.692) | -2.600 (1.692) | -2.903 (1.838) |
| Asia | -3.097*** (1.142) | -2.890** (1.392) | -3.487** (1.362) | -3.327** (1.533) |
| Africa | -3.042** (1.386) | -2.906* (1.565) | -3.487** (1.661) | -3.075* (1.602) |
| Firm age | -0.531* (0.323) | -0.544* (0.318) | -0.589* (0.326) | -0.526 (-0.346) |
| Firm size | -0.152 (0.222) | -0.376 (0.275) | -0.377 (0.272) | -0.468* (0.286) |
| <i>Main effects</i> | | | | |
| Gender | | 1.245* (0.697) | 1.310* (0.708) | 1.522** (0.758) |
| Education | | 0.931*** (0.361) | 0.914*** (0.361) | 1.053*** (0.380) |
| Individual resilience | | -0.020 (0.444) | -0.908 (0.921) | -4.555** (1.984) |
| <i>Moderating effect</i> | | | | |
| Gender × individual resilience | | | -1.268 (1.095) | |
| Education × individual resilience | | | | 1.166** (0.519) |
| Penalized Log likelihood | -36.787 | -28.664 | -27.946 | -25.871 |
| Wald chi2 | 9.40 | 14.07 | 14.67 | 13.66 |

Notes: The standard error is in parentheses. $N = 119$

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

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Sustainable International Business: A Retrospection and Future Research Direction



Pratik Arte , Yi Wang , Cheryl Dowie , Maria Elo ,
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The first section of the book addresses the interaction between international business activities and the economic aspect of sustainability. The *first* finding of this part of the book is that international business affects and is affected by economic and other pillars of sustainability. For example, in the chapter “Realisation of SDGs in Africa: An Impactful Political CSR Approach,” the author developed a political CSR model and contended that rejuvenating the SDGs in Africa through an impactful PCSR model can unleash the huge potential of international business in the realisation of SDGs. In the chapter “Value Creation Impact: Role of Stakeholders in the Development of Sustainable Foreign Trade,” the author revealed that pursuing sustainability in an organisation increases sustainable competitive advantage by improving global value chains and the perception of consumers and other market stakeholders. *Second*, embracing the economic aspect of sustainability requires reshaping the global supply chain functions and value chain activities. For example, in the chapter “Reshaping the World’s Supply Chain? A Case Study of Vietnam’s PAN Group Adopting the Circular Economy Concept,” the authors pointed out that sustainability, circular economy, and supply chain are interconnected concepts that are pivotal in promoting responsible and efficient resource management. In the chapter

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“Integration of Internal Audit and Sustainability Functions: A Business Model Suggestion,” in order to resolve significant disruptions and inefficiencies in the purchasing processes, the authors developed a novel business model that brings together different areas of expertise, prevents overlapping and duplication of purchasing tasks, and improves interdepartmental communication. *Third*, this part of the book revealed that firm-level digital capability helps internationalising firms achieve sustainable economic development by facilitating access to foreign markets. For example, in the chapters “Mitigating the Negative Implications of Fake Social Media News on Internationalizing Firms: The Role of Social Media Capability” and “Network Ties and Opportunity Recognition in SME Internationalization in the Social Media Context,” the author found that social media capability facilitates internationalising SMEs identify international opportunities, access foreign market information, and enhance the institutional legitimacy in foreign markets.

The sustainable development goals of the United Nations highlight the need to address a multitude of elements that shape the anthropocentric social sustainability. For many companies, including academic institutions, these issues have remained as internal practices that relate to recruitment, retention, and employer branding, while their importance transcends levels of human rights, health, safety, equity, diversity, inclusion, wellbeing, human empowerment, and charitable actions. These are elements that are interconnected and intertwined, creating a complex web of factors and practices that influence how social sustainability is lived and executed in business and the overall economy. The book chapters provide insights to these discussions and remind the readers that it is not just about having rules and governance structures; these also require an appropriate implementation and monitoring.

As the UN Global Compact states “Social sustainability is about identifying and managing business impacts, both positive and negative, on people. The quality of a company’s relationships and engagement with its stakeholders is critical. Directly or indirectly, companies affect what happens to employees, workers in the value chain, customers and local communities, and it is important to manage impacts proactively.” (United Nations Global Compact, 2023)

This means that social sustainability can also be missing and maintaining malpractices, poverty, inequality, structural discrimination, or underperforming economy. Private businesses, industry sectors, and nation states have their own governance and policy levels, which calls for harmonization and holistic understanding of how to advance social sustainability. These layers call for orchestrated action and common understanding of the ways forward. Particularly, as e.g. prior theories on institution, innovation, and migration point out, the role of formal structures and policymaking is essential in triggering, advancing, and maintaining positive change (Carrillo-Hermosilla et al., 2009; Higgins & Larrinaga, 2014).

The institutional sector and the governance actors should address these challenges by advancing the rule of law and by fostering the economic inclusion while reducing inequalities and vulnerabilities (e.g., Heikkilä, 2005). The recent developments on generating better functioning responsibilities and accountabilities in global supply chain are an example of how multiple stakeholders can commonly improve structures that have posed problems. Additionally, the role of watchdog organisations and

NGOs that monitor such developments and their implementation, e.g., on a firm-level practice, is of essential importance safeguarding a continuous interest of the public.

Businesses themselves should reconsider their strategies when approaching their local and global problems related to sustainability. They should rethink how to:

- Contribute in other ways to improve the lives of the people they affect, such as by creating decent jobs, goods and services that help meet basic needs, and more inclusive value chains.
- Make strategic social investments and promote public policies that support social sustainability.
- Partner with other businesses, pooling strengths to make a greater positive impact (United Nations Global Compact, 2023).

As we may see from the contributions of this book, there are multiple challenges that are not limited to local contexts, but are transboundary and crucial to be addressed for betterment. These relate to exploitative practices, decent jobs, migration, and many other societal and human elements that deserve further attention in research, business, and policymaking, as well as the overall civil society (Kothari et al., 2022; Rana & Sørensen, 2021).

We call for future research to address the complex interdisciplinary nature of this theme by using novel theoretical lenses and creative methodologies, by addressing the invisible categories of actors, and by exploring the interdependent structures and practices that hinder positive development.

Despite growing scientific evidence of the climate crisis, exceeded planetary boundaries, and negative health implications of our fossil fuel-dependent society (Romanello et al., 2022; Steffen et al., 2015), business and technological solutions lag behind in bringing about transformational sustainable innovation at scale. This has at least been the case in the era of voluntarily incentivised initiatives, which is now fundamentally changing with the European Union taking the lead on setting new hard law EU-taxonomy alignment requirements coupled with the Corporate Sustainability Reporting Directive (CSRD), which came into effect on January 5th, 2023. From 2025 onward, based on the financial year 2024, 50,000 large companies and listed SMEs fall liable to the CSRD requirements, which aims at providing investors and other stakeholders the information they need to assess investment risks arising from climate change and other sustainability issues. Coupled with the EU-taxonomy alignment incentives, this fundamentally changes the drivers for companies to move sustainability to the core of financial decisions. Chief Financial Officers will have to start speaking the same language with Sustainability Directors, and vice versa. This changing landscape will be interesting to follow and study: What impact can hard law introductions incur. Does hard law have the necessary strength to move the sustainability needle forward enough to create the impact we need at scale?

Furthermore, while eco-efficiency and reducing negative impact have been the guiding line for corporate sustainability efforts for decades, the criticism toward making minor tweaks to a broken system is mounting (e.g., Barnett et al., 2021). It is

no longer sufficient to minimize and reduce. Instead, we need to repair, regenerate, and restore (e.g., Hahn & Tampe, 2021). Regenerative business models such as holistic land restoration and agriculture are approaches and initiatives that fundamentally challenge the modern monoculture exploitative business models. Studying the longitudinal impact of these new business models will be an important research area for future international business research.

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