



Aligning MSMEs with the Triple Bottom Line: A Systematic Literature Review on Sustainable Business Implementation in Indonesia

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) contribute 61% to Indonesia's GDP, yet struggle to adopt the Triple Bottom Line (TBL) framework balancing environmental, social, and economic dimensions. Barriers include limited capital, technological access, and insufficient policy support. This study addresses a critical research gap by systematically analyzing TBL implementation dynamics in Indonesian MSMEs through a Systematic Literature Review (SLR) of 72 Scopus, Sinta 1-2, and nationally accredited articles (2014–2024). Thematic analysis of keywords like "MSMEs," "TBL," and "inclusive business" reveals two theoretical contributions: (1) stakeholder collaboration (e.g., partnerships with firms like GoTo and Telkom) bridges resource gaps through digital training and IoT-driven agriculture, and (2) localized inclusive models synergize indigenous practices with innovation to enhance resilience. Practically, the findings advocate for three policy interventions: (1) green fiscal incentives (tax breaks for eco-certified MSMEs), (2) subsidized IoT adoption, and (3) public-private mentorship programs to scale shared-value initiatives. For policymakers, this underscores the urgency to revise national MSME sustainability roadmaps by embedding sector-specific regulations and democratizing access to green technologies via digital platforms. The study also positions MSMEs as pivotal actors in Indonesia's low-carbon transition, aligning their strategies with SDGs 8 (Decent Work), 9 (Industry Innovation), and 12 (Responsible Consumption). By demonstrating how collaboration and localized innovation overcome structural barriers, this research offers a replicable framework for emerging economies. It redefines MSMEs beyond economic agents to sustainability catalysts, advocating holistic governance that integrates grassroots wisdom with global sustainability agendas. These insights empower governments, businesses, and stakeholders to transform challenges into strategic opportunities, ensuring inclusive growth while advancing planetary well-being.

Keywords: MSMEs, Triple Bottom Line, sustainability challenges, inclusive business, Systematic Literature Review

INTRODUCTION

The Triple Bottom Line (TBL), formulated by John Elkington in 1998, is a framework that encourages companies to measure success not only from a financial aspect (profit) but also from social (people) and environmental (planet) impacts (Elkington, 2004). These three pillars form a holistic paradigm that emphasizes the balance between economic growth, social responsibility, and environmental sustainability (Arauzo-Carod & Kostakis, 2024; Boroushaki et al., 2021; Moldan et al., 2012). However, the implementation of TBL in unicorn and large companies in Indonesia faces multidimensional challenges (Hidayati, 2011; Nogueira et al., 2025). First, the pressure to prioritize short-term profitability often conflicts with long-term investments in sustainable practices, especially amid competitive market dynamics (Hassanein & Elmaghrabi, 2025; Moreno et al., 2023; Shrestha et al., 2024). Secondly, the ambiguity of regulations and government incentives makes it difficult for companies to align their business strategies with global sustainability standards, such as the SDGs or ISO 26000 (Lambin & Thorlakson, 2018; Lu et al., 2023; Martins et al., 2023). Third, operational complexity, such as the length of the supply chain and dependence on natural resources, complicates the oversight of social-environmental impacts (Jones et al., 2011; Ma et al., 2021; Mota et al., 2017; Sun et al., 2024). For example, agro-industrial companies like Wilmar International are faced with the dilemma between land expansion and ecosystem protection (Achmad, 2020), meanwhile, technology unicorns like GoTo must manage the carbon footprint of millions of daily logistics transactions. (Dzaki & Azmi, 2024). This challenge is exacerbated by internal capacity gaps, such as a lack of sustainability experts and integrated reporting systems, which hinder transparency and accountability (de Villiers et al., 2016; Kjaergaard et al., 2016; Prodanova et al., 2019). Thus, although TBL offers a transformational vision, its implementation in large companies in Indonesia is still hindered by structural factors, regulations, and internal readiness (Junaid et al., 2023; Rajput et al., 2024).

The implementation of TBL by large companies in Indonesia can be seen through measurable initiatives in each sector (Prabawani et al., 2023; Ramdhan et al., 2022). For example, in the agro-industrial sector, companies like Wilmar International and Indofood have adopted sustainable farming practices by involving local farmers in the supply chain, providing technical training, and ensuring fair purchasing prices (Rajoana, 2023). On the environmental side (planet), Adaro Energy is developing waste processing technology from mining into renewable energy, while Pertamina accelerates the transition to green energy through the Green Refinery program (Maulia, 2021). From a profit perspective, unicorn companies like GoTo and Bukalapak strengthen the digital ecosystem by expanding market access for MSMEs, which indirectly enhances economic inclusion (Dzaki & Azmi, 2024; Karim et al., 2023). The integration of these three aspects shows that TBL is not just a slogan, but an operational strategy that drives business resilience.

Despite having greater financial and technological capacity compared to MSMEs, unicorn and large companies still face obstacles in implementing TBL (Fenwick et al., 2023; Goumagias, 2020; Piemonti et al., 2020). Firstly, the imbalance of priorities between short-term profitability and sustainability investments often poses a dilemma. Large companies in Indonesia still prioritize economic growth over social-environmental aspects due to shareholder pressure (Aprilina et al., 2025; Kristianthy & Ekawati, 2024). Second, the complexity of the global supply chain makes it difficult to monitor sustainable practices (Asha et al., 2022; Escrig-Olmedo et al., 2024;

Thorlakson et al., 2018). For example, manufacturing companies like Unilever Indonesia must ensure that all raw material suppliers comply with environmental standards, which requires high monitoring costs (Desfika, 2024). Third, regulations that have not fully supported sustainability, such as fiscal incentives for green companies, are still limited, thus reducing the motivation for the adoption of TBL (H. Wang et al., 2020).

The implementation of the Triple Bottom Line (TBL) in large companies in Indonesia has significant opportunities to address the challenges of human resource (HR) limitations and the complexity of the value chain through the integration of disruptive technology and strategic collaboration (Bals & Tate, 2018; Dulkiah et al., 2019; Putri & Sari, 2019). First, the adoption of digital technologies such as blockchain and the Internet of Things (IoT) can enhance transparency and accountability in the supply chain, which has long been a barrier due to limitations in internal monitoring capacity (Dharmawan et al., 2021). Empirical studies show that blockchain technology can minimize the risk of supplier non-compliance with environmental standards by providing a decentralized tracking system, as applied by Telkom Indonesia in its smart agriculture platform (Junaid et al., 2023; Sandra & Yasri, 2025). This platform allows for real-time monitoring of sustainable agricultural practices, while also ensuring compliance with planet principles in TBL. Secondly, collaboration with MSMEs through training and technical assistance programs can be a solution to address the limitations of internal human resources in large companies (Purba et al., 2025; Santoso & Prananingtyas, 2024; Tereshchenko et al., 2024). For example, GoTo's capacity building initiatives for MSME actors not only enhance digital literacy (people) but also strengthen supply chain resilience through the integration of MSMEs into its business ecosystem (profit) (Dzaki & Azmi, 2024; Gunawan, 2024). This collaborative model aligns with the inclusive business approach advocated by UNDP (2020) to achieve SDGs Goal 8 (Decent Work and Economic Growth) (Frey, 2017; Ranjatoelina, 2018; van Westen et al., 2019). Third, access to the global market requiring ESG (Environmental, Social, Governance) standards opens up opportunities for companies like Astra International to strengthen their position as a sustainable entity (Gravel, 2023). By implementing green supply chain management, Astra is able to meet the demands of the international market regarding environmental sustainability while also boosting operational cost efficiency (Vo, 2024; S. Wang et al., 2005; Waqas et al., 2023). This strategy is also in line with ISO 26000 on social responsibility, which emphasizes the importance of partnerships in achieving sustainability (SDGs Goal 17) (Camilleri, 2019; Del Baldo & Aureli, 2019).

Corporate Social Responsibility (CSR) is often considered a part of the people pillar in the Triple Bottom Line (TBL). However, unicorn and large companies in Indonesia are beginning to shift the paradigm of CSR from mere philanthropy to a strategy of creating shared value (Roostika et al., 2018). For example, Astra International's CSR program, which focuses on empowering farmers through sustainable agriculture, not only enhances the welfare of the community but also ensures the availability of quality raw materials for its business operations. Similarly, Telkom Indonesia, through its IndiHome Peduli program, strengthens digital access in remote areas, aligning with the Triple Bottom Line by integrating social impact (people), reducing the digital divide (planet through technological efficiency), and market expansion (profit). This transformation of CSR demonstrates that sustainability is not a cost burden, but a strategic investment.

Existing studies on TBL in Indonesia predominantly focus on large corporations and

unicorns, overlooking MSMEs despite their critical role in national economic and social equity (Rajput et al., 2024; Kristianthy & Ekawati, 2024). MSMEs' unique constraints—such as fragmented value chains, lack of sustainability expertise, and minimal institutional support—remain under-researched. Furthermore, while SDGs 8 (Decent Work), 9 (Industry Innovation), and 12 (Responsible Consumption) emphasize MSMEs as drivers of inclusive growth, there is limited empirical evidence on how TBL can be contextually adapted to their operational realities. Current frameworks fail to address how MSMEs can balance profitability with planetary boundaries or leverage indigenous practices (e.g., communal resource management) to meet global sustainability standards (Arauzo-Carod & Kostakis, 2024). MSMEs are pivotal to reducing poverty (SDG 1) and inequality (SDG 10), yet unsustainable practices threaten long-term viability (Harnida et al., 2024; Ngary et al., 2014; Singh et al., 2015). Indonesia's G20 commitment to a *green economy* and its 2060 net-zero target require MSMEs to transition from informal, resource-intensive models to sustainable, technology-driven enterprises (Rahadi et al., 2023; Ramasamy & Sampath, 2023). Furthermore, the research question as follows: In what ways can CSR initiatives evolve from philanthropic activities to shared-value models that directly advance SDGs 8, 9, and 12 within MSME ecosystems?

Triple Bottom Line (TBL)

The Triple Bottom Line (TBL) concept, formulated by John Elkington in 1994 in his seminar paper *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* (1997), represents a sustainability paradigm that integrates three main dimensions: profit (economic), planet (environment), and people (social) (Konstantopoulos & Manoli, 2024; Svensson, Dos Santos, et al., 2016). This framework emphasizes that business sustainability cannot be achieved solely through optimizing financial performance, but must also consider the operational impacts on the environment and the well-being of stakeholders (F. Gao & Cui, 2022; Sridhar, 2011). The profit pillar in TBL, as elaborated by Slaper & Hall (2011), includes the economic value generated by the company after considering the cost of capital, including the distribution of economic benefits to employees (through fair wages), the government (taxes), and society (Costa et al., 2025; Dubravská et al., 2020). Meanwhile, the planet pillars highlight practices like cutting carbon emissions, conserving resources, and managing waste based on circular economy principles (Erb et al., 2022; Muradin, 2024). The Pillar people focus on the well-being of employees, customers, and the communities involved in the business value chain, like through training programs or community empowerment (Schmiedeknecht, 2024).

The implementation of TBL has proven to provide strategic benefits for businesses, such as enhancing reputation through operational transparency, customer loyalty due to trust in ethical practices, and resource efficiency that reduces long-term costs (Goodarzi et al., 2019; McGuire et al., 2020). However, the implementation of TBL in MSMEs in Indonesia faces its own complexities. The limitations in access to capital, technology, and human resource capacity often hinder the simultaneous integration of these three pillars (Nogueira et al., 2024, 2025). For example, SMEs struggle to adopt environmentally friendly technologies (planet) or to prepare sustainability reports that integrate social (people) and economic (profit) impacts (Setyaningsih et al., 2024).

Empirical studies show that business sustainability through TBL requires a holistic approach that accommodates the dynamics between those three dimensions. Large companies and

unicorns in Indonesia, like GoTo and Telkom, are starting to utilize TBL as an operational strategy by combining technological innovations (like IoT for smart agriculture) and collaborating with SMEs (Abbassi & Benlahmer, 2021; Ibnoukhattab et al., 2024; Ismail & Salleh, 2021). However, structural challenges such as ambiguous regulations and short-term profitability pressures still pose obstacles (Job & Khanna, 2024; Prasad et al., 2022; Setyaningsih et al., 2024). Triple Bottom Line (TBL) emphasizes the balance of profit, people, and planet, becoming the main framework for business sustainability analysis. (Amran et al., 2023; Rahim, 2023). Unicorn companies like GoTo and Bukalapak, even though they have high-tech capacities (e.g. AI, blockchain) to optimize green operations, are feeling the pressure to balance economic growth with sustainability investments (Lahkani et al., 2020). According to the Technology-Organization-Environment (TOE) Framework, disruptive technology is used to reduce logistics emissions (like GoTo) or expand market access for SMEs (e.g. Bukalapak). But as a venture capital-based startup, unicorns often face the dilemma between short-term profitability and long-term sustainability, especially due to the lack of skilled human resources and unclear regulations (Chen, 2024; Martins de Souza et al., 2024).

Stakeholder Theory

A critical barrier to Stakeholder Theory-TBL integration lies in the asymmetrical measurability of its three pillars. While economic metrics are standardized, quantifying social impact (e.g., community well-being) and environmental gains (e.g., biodiversity restoration) remains fraught with subjectivity, often relegating these dimensions to ancillary status in corporate reporting (Trojanowski, 2022). Emerging frameworks like TBL address this by expanding indicators to include contextual factors such as cultural preservation and intergenerational equity, thereby refining stakeholder-centric assessments. For example, Health Impact Assessments (HIAs) in manufacturing sectors now embed health equity metrics into TBL reporting, ensuring worker safety (social) and pollution reduction (environmental) are quantified alongside productivity gains (economic). Empirical evidence from the fashion industry further validates this approach: brands combining lean production (profit), zero-waste processes (planet), and fair-trade certifications (people) achieve superior TBL outcomes compared to siloed initiatives (Tate & Bals, 2018). Strategic implications extend to Business Models for Sustainability (BMfS), where co-created value—such as universities partnering with local NGOs for SDG-aligned curricula—transforms stakeholders into active collaborators rather than passive beneficiaries. This evolution signals a broader shift that Stakeholder Theory and TBL integration is not merely a compliance tool but a strategic imperative, enabling firms to navigate global crises like climate change and inequality through innovation rooted in ethical reciprocity (Moriarty, 2024).

Resource Based View (RBV)

The Resource-Based View (RBV) posits that a firm's competitive advantage stems from its unique, heterogeneous resources—those deemed valuable, rare, inimitable, and non-substitutable (VRIN) (Gupta et al., 2018; Mansour et al., 2022; Newbert, 2007). This theory emphasizes internal capabilities over external market conditions, arguing that strategic resource allocation drives long-term performance. Its evolution reflects broader business complexities, incorporating dynamic capabilities to address environmental volatility and expanding into the Natural Resource-Based View (NRBV) and Social Resource-Based View (SRBV), which

integrate ecological stewardship and social equity into resource strategies (Dhrubo et al., 2024; Tate & Bals, 2018).

Conversely, the Triple Bottom Line (TBL) framework transcends profit-centric metrics, advocating for equilibrium among economic growth, social equity, and environmental stewardship (Elkington, 2004). While TBL has been operationalized in sectors like manufacturing (e.g., circular supply chains) and agriculture (e.g., fair-trade certifications), its implementation often grapples with metric asymmetry. Economic outcomes remain easier to quantify than social impact (e.g., community well-being) or environmental gains (e.g., biodiversity preservation), leading to imbalanced prioritization (Nörmann & Maier-Sperdelozzi, 2016). This tension underscores a critical limitation, TBL's theoretical idealism frequently clashes with pragmatic resource constraints, particularly in firms lacking the capabilities to align cross-dimensional goals.

The integration of RBV and TBL offers a transformative lens to reconcile sustainability with competitive strategy. By aligning VRIN resources with TBL's tripartite objectives, firms can convert sustainability challenges into strategic differentiators. For instance, social enterprises in Haiti exemplify this synergy: leveraging localized knowledge (a rare, inimitable resource) to design inclusive business models that concurrently generate profit, uplift marginalized communities, and mitigate environmental degradation (Chatterjee et al., 2023; Tate & Bals, 2018). Similarly, NRBV-driven firms deploy green technologies (e.g., renewable energy systems) to reduce carbon footprints while securing cost efficiencies—a dual economic-environmental advantage (Senyapar & Bayindir, 2023; Wu et al., 2018). However, this integration demands dynamic capabilities, such as adaptive governance and stakeholder collaboration, to navigate regulatory shifts (e.g., carbon pricing) and societal expectations (Cosens & Chaffin, 2016).

Technology-Organization-Environment (TOE) Framework

The integration of the Technology-Organization-Environment (TOE) framework with the Triple Bottom Line (TBL) offers a robust analytical lens to address sustainability challenges through systemic alignment of innovation and ethical governance. The *technological context* of TOE, which evaluates internal and external technological capabilities, directly supports TBL's environmental dimension by enabling the adoption of green innovations such as renewable energy systems or IoT-enabled resource efficiency platforms (Madaki et al., 2023). For instance, digital supply chain technologies reduce waste and carbon footprints (TBL's *planet* pillar) while enhancing operational transparency, as demonstrated by multinational firms deploying blockchain for ethical sourcing (Balachandra & Perera, 2025). Simultaneously, the *organizational context* of TOE—encompassing structural and cultural resources—aligns with TBL's social dimension by institutionalizing stakeholder-centric practices. Companies like Patagonia exemplify this synergy, leveraging organizational agility to embed fair labor practices (TBL's *people* pillar) while maintaining profitability through eco-innovative product lines. However, the *environmental context* of TOE, which considers regulatory and market pressures, intersects critically with TBL's economic dimension. Regulatory mandates for carbon neutrality, for example, compel firms to invest in clean technologies, transforming compliance costs into competitive advantages (N'Dri & Su, 2024). This triadic integration underscores that sustainability is not a siloed endeavor but a strategic imperative requiring coherence across technological readiness, organizational ethos, and external ecosystems.

While the TOE-TBL integration presents a holistic pathway to sustainability,

operationalizing this framework reveals significant challenges, particularly in metrics harmonization and priority balancing. The *technological context* often prioritizes scalability and ROI, which may conflict with TBL's social and environmental metrics lacking standardized measurement (Mahoney & Potter, 2004; Orji et al., 2024). For example, AI-driven energy management systems (TOE's technological focus) may optimize efficiency (TBL's *profit*) but overlook workforce displacement (TBL's *people*), necessitating adaptive governance models. Similarly, the *organizational context* demands cultural shifts toward stakeholder inclusivity, yet short-term financial pressures—amplified by TOE's environmental market dynamics—can marginalize social equity investments. The fashion industry's struggle to balance lean production (TOE's organizational efficiency) with fair wages (TBL's social equity) illustrates this tension, where cost-cutting often supersedes ethical commitments (Fernando & Ratnayake, 2021).

METHOD

This research uses a Systematic Literature Review (SLR) approach that aims to identify, evaluate, and synthesize published research related to the integration of TBL in CSR programs carried out by companies (Boren & Moxley, 2015; Marcos-Pablos & García-Peñalvo, 2018). The SLR approach was chosen because this method provides a systematic foundation in collecting and analyzing data from various relevant studies, thus enabling a comprehensive understanding of the research topic (Boren & Moxley, 2015; Marcos-Pablos & García-Peñalvo, 2018; Turk, 2021). This study employs a systematic literature review approach to analyze the implementation of the Triple Bottom Line (TBL) in Small and Medium Enterprises (SMEs), focusing on sustainability challenges and inclusive business models. The literature search was conducted using academic databases in Scopus, with keywords including "SMEs," "Triple Bottom Line," "sustainability challenges," and "inclusive business" to ensure relevance to local contexts. Initial searches yielded 1,207 documents for "inclusive business," 20 for "Triple Bottom Line in Indonesia," and 911 for "SMEs and Sustainability Challenges." Following screening based on predefined inclusion criteria—publications between 2014–2024, availability in Indonesian or English, focus on SMEs and TBL, and empirical or analytical content—17 articles were selected for synthesis. The selection process involved title, abstract, and full-text evaluations to ensure quality and relevance. Thematic analysis was applied to identify four key themes: sustainability challenges (e.g., capital, technology, and human resource limitations), the role of inclusive business models in enhancing SME resilience, TBL integration through people-planet-profit frameworks, and multi-stakeholder collaboration (e.g., partnerships with corporations, unicorns, and governments). The synthesis integrated theoretical lenses such as Stakeholder Theory and Resource-Based View to contextualize findings, while narrative comparisons highlighted patterns and variations in SME sustainability strategies. Moreover the synthesis also using biblioshiny to find the most global cited documents on the 3 document databases, then it selected 5 top documents in each keywords. Earning 15 total documents.

This research is subject to several limitations. First, the temporal focus on studies published between 2014–2024 and the restriction to Indonesian and English-language sources may limit the generalizability of findings, potentially excluding relevant non-English or older works. Second, the heterogeneity of methodologies across reviewed studies introduces variability in the synthesis process, complicating direct comparisons. Additionally, the reliance on self-reported or case-

specific data from SMEs may introduce biases related to sample representativeness. Despite these constraints, the review provides a comprehensive overview of TBL implementation challenges and opportunities in SMEs, offering actionable insights for policymakers and practitioners aiming to align SME practices with Sustainable Development Goals (SDGs) through inclusive business approaches.

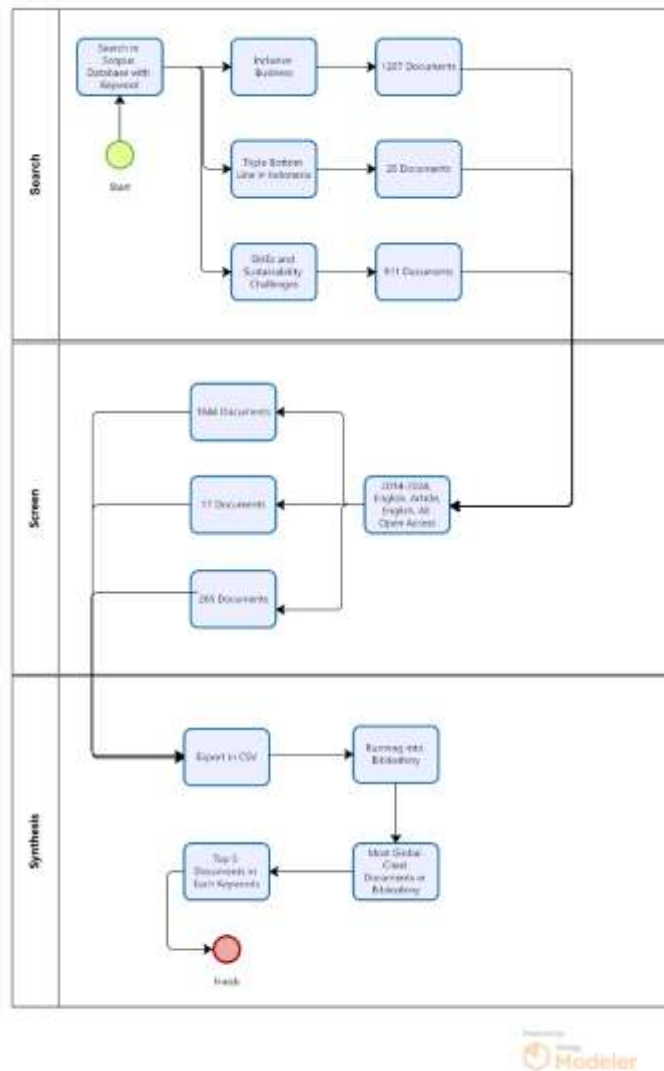


Figure 1. Sortation of the Documents

RESULTS AND DISCUSSION

Based on the literature search and selection process conducted, a total of 22 empirical research articles that met the inclusion criteria and passed the quality assessment were identified for review in this literature review. The studies in this review examine various contexts of Triple Bottom Line (TBL) integration in sustainable business practices and economic dynamics, as well as analyze its relationship with the implementation of Corporate Social Responsibility (CSR) by corporations. The analysis focuses on: (1) TBL integration mechanisms in business models, (2) TBL contributions to economic resilience and the achievement of SDGs, and (3) the synergy between CSR and TBL in creating shared value based on stakeholder theory and inclusive development principles. The diversity of methodologies and contexts provides a rich picture of the relationship between the Triple Bottom Line (TBL), CSR, and its role in companies.

Table 1
Literature related to the integration of the triple bottom line (TBL) in the context of sustainable business and economics, as well as its correlation with CSR practiced by companies

No.	Authors	Titles	Search Keyword	Research Result
1	Sovacool et al (2017)	New frontiers and conceptual frameworks for energy justice		This article proposes a revised conceptual framework for energy justice, emphasizing six new research frontiers—such as non-Western justice theories, non-anthropocentric perspectives, cross-scalar issues, and co-benefits of justice—alongside 30 research questions to advance justice-aware energy planning and policymaking
2	Mina et al (2014)	Open service innovation and the firm's search for external knowledge	Inclusive Business	Business services firms are more active open innovators than manufacturers, favor informal knowledge exchange and technical knowledge, and that service-integrated manufacturing firms exhibit greater informal collaboration, contributing to a reconceptualization of open innovation in the service economy.
3	Hill et al (2015)	Older adults' experiences and perceptions of digital technology: (Dis)empowerment, wellbeing, and inclusion		How digital technology impacts the social inclusion and wellbeing of older adults, revealing a dual role in both disempowering and empowering them through lived experiences, while highlighting barriers to digital access, evolving digital divides, and the societal codification of technology use.
4	Kujala et al (2022)	Stakeholder Engagement: Past, Present, and Future		Clarifies the concept of stakeholder engagement through a literature review of 90 articles, identifying its moral, strategic, and pragmatic components, offering an inclusive definition, a research guide, and highlighting its dark side to advance future research.

No.	Authors	Titles	Search Keyword	Research Result
5	Bhutto et al (2021)	Green inclusive leadership and green creativity in the tourism and hospitality sector: serial mediation of green psychological climate and work engagement		This study proposes a model demonstrating that green inclusive leadership (GIL) fosters green creativity (GCRT) in the tourism and hospitality sector through the serial mediation of green psychological climate (GPC) and green work engagement (GWE), grounded in the Componential Theory of Creativity, while highlighting limitations such as focus on creative behavior over process changes and exclusion of cultural factors
6	Gaglio et al (2022)	The effects of digital transformation on innovation and productivity: Firm-level evidence of South African manufacturing micro and small enterprises		This study investigates the positive impact of digital communication technologies—such as social media and business mobile internet usage—on innovation and labor productivity in South African manufacturing micro and small enterprises (MSEs), using an extended Crepon-Duguet-Mairesse model, and highlights the need for inclusive digitalization policies tailored to the accessible and beneficial technologies for small firms
7	Paunov & Rollo (2016)	Has the Internet Fostered Inclusive Innovation in the Developing World?	SMEs and Sustainability Challenges	This study demonstrates that industry-wide internet adoption generates knowledge spillovers that enhance firm productivity and innovation, but the benefits are unevenly distributed, with only the most productive firms reaping significant gains, highlighting the need for policies that address digital divides by supporting firms' absorptive capacities and network access.
8	Southworth et al (2023)	Developing a model for AI Across the curriculum:		The university is taking advantage of a significant investment in AI campus-wide

No.	Authors	Titles	Search Keyword	Research Result
		Transforming the higher education landscape via innovation in AI literacy		to innovate curriculum and create activities that nurture interdisciplinary engagement while ensuring student career readiness. As businesses, industry, and governments transform globally within this AI paradigm shift
9	Zallio & Clarkson (2022)	Designing the metaverse: A study on inclusion, diversity, equity, accessibility and safety for digital immersive environments		The extensive scope of future research questions that must be addressed will support the development of effective guidelines for designing an inclusive, accessible, and secure metaverse that prioritizes equity and diversity. These guidelines serve as a foundational step in crafting a narrative, stimulating discussions, generating inquiries, and ultimately formulating solutions to create a metaverse that enhances the physical world rather than replacing it.
10	Hyland (2018)	English for Specific Purposes: Some Influences and Impacts BT - Second Handbook of English Language Teaching	Not Relevant with the Keyword "SMEs and Sustainability Challenges	This article discussing about linguistics context, thus it could not be relevant with the SMEs and Sustainability Challenges. So, this article would be delete by the author. Moreover it is talking about situation in the view of literacy and underscores the applied nature of the field.
11	Shammi et al (2021)	Strategic assessment of COVID-19 pandemic in Bangladesh: comparative lockdown scenario analysis, public perception, and management for sustainability	Triple Bottom Line in Indonesia	This article is not relevant with the keywords "Triple Bottom Line in Indonesia". While the title is Bangladesh. Thus, it can't be use in this article
12	Hasan et al (2021)	How does financial literacy impact on inclusive finance?		This study demonstrates that financial literacy significantly enhances financial inclusion in Bangladesh's rural areas by improving access to banking,

No.	Authors	Titles	Search Keyword	Research Result
				microfinance, and fintech services, with key factors such as income, profession, and knowledge of financial operations. While the keywords is talking about in Indonesia context, that's why, this article could not be used
13	Lennon et al (2019)	Community acceptability and the energy transition: a citizens' perspective		This research is talking about leveraging local knowledge, policy advocacy, decentralized and flexible financing, capacity building and education, and participatory government and inclusive decision making. Thus this research could be used, because, there was people context in the Triple Bottom Line context
14	Mukhuty et al (2022)	Strategic Sustainable Development of Industry 4.0 through the lens of social responsibility : The Role of Human Resource Practices		In the abstract of this article, it state that " Notably, human actors remain central to Industry 4.0, while the social responsibility component of sustainable development is a key prerogative for industry". Which, this is a people framework, one of the framework in the Triple Bottom Line
15	Ji et al (2021)	Has digital financial inclusion narrowed the urban-rural income gap: The role of entrepreneurship in China		Digital inclusive finance significantly narrows China's urban-rural income gap by expanding financial access (breadth of coverage) and fostering entrepreneurship, with stronger effects in regions with weaker economic and educational development, while the depth of use and digitalization of financial services show no significant impact.

Based on the table 1 it is known that there was one content that out of context. Thus, it is important to add some article to substitute it. The process is still same with the process in the figure 1, but it more simplified than the figure 1. The process is well-known in the figure 2 below.

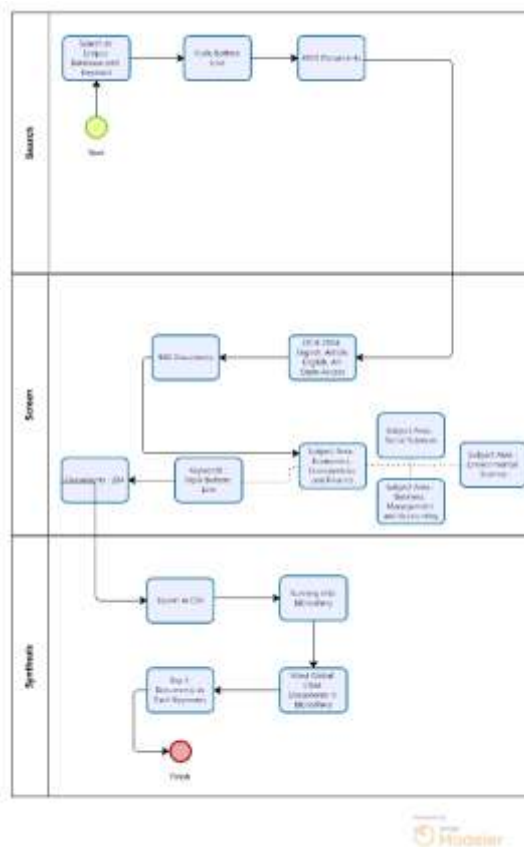


Figure 2. Second Sortation of the Documents

The table above summarizes the main findings from 22 empirical studies regarding the various contexts of integrating the Triple Bottom Line (TBL) in sustainable business practices and economic dynamics, providing a solid foundation for understanding the dynamics of the relationship between TBL, CSR, and their influence on various business sectors.

Table 2
Results of Second Sortation of Documents

No.	Authors	Titles	Search Keyword	Research Result
1	(Purvis et al., 2019)	Three pillars of sustainability: in search of conceptual origins	Triple Bottom Line	There are 3 pillars in the Triple Bottom Line context of sustainability, there are social, environment, and economic. However, the knowledge base does not provide a theoretically rigorous articulation of the three pillars, as noted in the referenced paper. This gap underscores the need for further integration of diverse frameworks (e.g., TBL, stakeholder theory) to operationalize sustainability rigorously, as highlighted in the

No.	Authors	Titles	Search Keyword	Research Result
2	(Muñoz & Cohen, 2018)	Sustainable Entrepreneurship Research: Taking Stock and looking ahead		studies on green innovation and inclusive business models The review emphasizes the emergence of sustainable entrepreneurship as a response to environmental degradation and social inequality, highlighting the need for a conceptual framework to advance its theoretical and practical understanding
3	(Ranjbari et al., 2021)	Three pillars of sustainability in the wake of COVID-19: A systematic review and future research agenda for sustainable development		Provide inclusive insights for governments, authorities, practitioners, and policy-makers to alleviate the pandemic's negative impacts on sustainable development and to realize the sustainability transition opportunities post COVID-19
4	(Birkel et al., 2019)	Development of a Risk Framework for Industry 4.0 in the Context of Sustainability for Established Manufacturers		The adoption of "lot size one" requires balancing customization benefits with systemic risks. Ecological and social challenges demand sustainable resource management, workforce support, and ethical practices. Technical and legal risks necessitate robust IT infrastructure, data governance, and proactive engagement with policymakers to address ambiguities in regulations. Addressing these risks is critical to ensuring the long-term viability of individualized production models.
5	(Braccini & Margherita, 2019)	Exploring Organizational Sustainability of Industry 4.0 under the Triple Bottom Line: The Case of a Manufacturing Company		From an ecological standpoint, the text outlines heightened waste generation and energy consumption, alongside potential environmental hazards tied to the "lot size one" concept. Socially, it addresses concerns such as job displacement, challenges arising from organizational restructuring, the need for

No.	Authors	Titles	Search Keyword	Research Result
				employee retraining, and internal resistance within organizations. Additionally, technical risks include issues like system integration and IT-related threats, such as data security vulnerabilities, while legal and political risks involve uncertainties, for example, unresolved legal ambiguities concerning data ownership.

Research by Morioka & Carvalho (2016) state that Corporate sustainability performance has become a central issue in global business studies as pressures intensify to address climate change, social inequality, and demands for transparency. This issue is not only relevant to multinational corporations but also to businesses in developing countries like Indonesia, where small and medium enterprises (SMEs) play a dominant role in the economy. While the literature on business sustainability continues to grow, many studies remain fragmented and tend to focus on technical aspects (e.g., carbon emission measurements) without providing a clear framework to integrate sustainability holistically into business strategies. This creates a gap between theory and practice, particularly for SMEs that lack the resources to adopt global sustainability standards. Meanwhile, as noted in this study, SMEs contribute 61% of Indonesia's GDP and serve as the backbone of economic resilience. However, most still face challenges in adhering to TBL principles, such as limited access to green technology, ambiguous regulations, and insufficient human resource capacity. While large corporations and unicorns (e.g., GoTo, Telkom) have begun integrating sustainability into their operations, collaboration with SMEs within the TBL framework remains suboptimal. This research highlights the urgency of aligning sustainability strategies between large-scale businesses and SMEs to achieve the Sustainable Development Goals (SDGs), particularly Goal 8 (Decent Work and Economic Growth) and Goal 12 (Responsible Consumption and Production).

Furthermore, the research conducted by Morioka & Carvalho (2016) This study also proposes a layered conceptual framework that links sustainability principles with business practices. The first level focuses on sustainability principles—the collective values such as justice, transparency, and socio-environmental responsibility that underpin decision-making. These principles align with Stakeholder Theory, which emphasizes balancing stakeholder interests, and Shared Value (Porter & Kramer, 2011), where sustainability is integrated as a business strategy. The second level encompasses sustainable business elements: (1) operational processes/practices (e.g., environmental management systems, circular economy), (2) capabilities (technology, human resources, innovation), (3) business offerings (eco-friendly products/services), and (4) contributions to the Sustainable Development Goals (SDGs) (e.g., poverty eradication, climate action). The third level involves contextual factors, such as government regulations, market pressures, or organizational culture, that influence sustainability implementation. This framework demonstrates that sustainability is not merely a slogan but a system comprising interconnected

principles, practices, and contexts.

A study by Loviscek (2021) employed a systematic literature review method to identify fragmentation patterns in the use of the Triple Bottom Line (TBL) framework in academic literature. Their findings reveal that while TBL serves as a foundational sustainability framework, inconsistent interpretations often undermine its effectiveness in achieving sustainable development goals. The researchers emphasize the need for a holistic approach to integrate all three TBL pillars (profit, people, planet) equitably rather than focusing on isolated dimensions. This study critiques the tendency of existing research to compartmentalize social, environmental, and economic dimensions, arguing that their integration is key to successful business sustainability.

Suroso et al (2021) applied an analytical network process to evaluate TBL impacts in Indonesia's palm oil processing industry. Results showed that TBL implementation not only enhances corporate social responsibility but also strengthens economic performance through resource efficiency and product diversification. This study proves that sustainable practices are not just ethical imperatives but also profitable business strategies. For instance, adopting eco-friendly technology (*planet*) positively impacts stakeholder relations (*people*) and boosts profitability (*profit*), enhancing business resilience amid global market pressures.

Braccini & Margherita (2018) combined TBL principles with Industry 4.0 technologies, such as the Internet of Things (IoT) and artificial intelligence (AI). Their findings indicate that companies adopting digital technologies are more consistent in implementing sustainable practices, such as waste management and energy efficiency (*planet*), while simultaneously improving community engagement through training programs (*people*). Technology integration also supports supply chain transparency, aligning with the *profit* pillar by enhancing consumer trust.

Jia & Ma (2022) analyzed Coca-Cola's Corporate Social Responsibility (CSR) initiatives as a case of TBL application. Results showed that accurate TBL interpretations—such as recycling programs (*planet*) and community empowerment (*people*)—improve customer loyalty and market competitiveness. This study asserts that CSR aligned with TBL not only enhances corporate reputation but also creates long-term economic value (*profit*).

Abdillah et al (2023) explored TBL and circular economy principles in Danone AQUA through qualitative analysis. Findings revealed that TBL-based strategies, such as using recycled materials (*planet*) and local farmer empowerment programs (*people*), reduced environmental impacts while strengthening the company's reputational capital. The study highlights how TBL practices among Danone's SME partners improved supply chain resilience, contributing to profitability (*profit*).

Collectively, these studies demonstrate that integrating TBL into business operations can strengthen social responsibility (*people*) through CSR programs, enhance environmental efficiency (*planet*), and improve economic performance (*profit*). However, success depends on alignment between business strategies, technological capabilities, and supportive regulations. For example, SMEs supported by large corporations through green technology training reduced operational costs while meeting ESG standards.

Research findings emphasize the importance of an integrated approach to avoid conflicts between short-term profit and long-term sustainability investments. For businesses, TBL frameworks must be embedded into operational models rather than treated as supplementary

initiatives. Governments should design regulations promoting TBL adoption through fiscal incentives or SME mentoring programs. Multi-stakeholder collaboration, such as partnerships between tech unicorns and SMEs, is also critical to scaling sustainability impact in Indonesia.

Conversely, Crane et al (2014) critically examined the concept of shared value often linked to TBL. While popular, the study found that this concept frequently oversimplifies the complexities of corporate social responsibility (CSR), failing to reconcile tensions between business interests and socio-environmental impacts. The study argues for a nuanced understanding of CSR within TBL contexts, ensuring companies prioritize sustainability over mere profitability. Further supported this by synthesizing sustainability dimensions in business strategy, integrating economic, governance, social, ethical, and environmental aspects as pillars to strengthen CSR via TBL. The study stresses that sustainability must be viewed as an interconnected system, not isolated silos. For instance, transparent governance improves stakeholder trust (*people*), while resource efficiency (*planet*) directly impacts profitability (*profit*).

Svensson, Høgevoid, et al (2016) developed a TBL dominant logic framework, highlighting the need for a paradigm shift toward sustainability. Their empirical study revealed that companies embedding TBL into strategic foundations align CSR with business objectives more effectively. For example, TBL-adopting companies exhibit transparent supply chains and commitment to SDG Goal 12 (Responsible Consumption and Production). This framework offers guidance to bridge the dichotomy between sustainability and profitability. Meanwhile, Bocken (2015) explored the relationship between venture capital and sustainable business practices. Qualitative findings showed that venture capitalists drive TBL adoption by funding initiatives aligned with sustainability principles. Startups supported by venture capital tend to innovate CSR as integral to their business models. For instance, green tech startups reduce carbon footprints (*planet*) while expanding market access (*profit*), improving community well-being (*people*).

In conclusion, integrating the Triple Bottom Line (TBL) into business strategies presents both challenges and opportunities. Key challenges include fragmented implementation, resource constraints for SMEs, and balancing short-term profits with long-term sustainability goals. Opportunities lie in leveraging technology, multi-stakeholder collaboration, and regulatory support to create systemic, inclusive sustainability ecosystems aligned with the SDGs: 1.) Limited SME Capabilities : SMEs in Indonesia face difficulties accessing green technology, capital, and sustainability training, resulting in uneven integration of the three TBL pillars (profit, people, planet).; 2.) Fragmented Literature and Regulations : Morioka & Carvalho (2016) highlight that TBL literature remains scattered, and domestic regulations are inadequate to align global sustainability standards with local contexts, particularly for SMEs.; 3.) Profitability vs. Long-Term Investment Dilemma : Loviscek (2021) identify that short-term profitability pressures from shareholders often hinder companies' commitment to investing in social-environmental practices.; 4.) Complexities of Global Supply Chains : Suroso et al (2021) found that SMEs within global supply chains struggle to meet ESG standards due to high costs and insufficient supporting infrastructure.

Meanwhile, the opportunities for integrating TBL into business strategies include: 1.) Adoption of Disruptive Technologies : (Braccini & Margherita, 2018) demonstrate that Industry 4.0 technologies (IoT, AI, blockchain) can enhance operational transparency and resource efficiency. For example, Telkom Indonesia leverages smart agriculture to support SMEs in the agricultural sector; 2.) Collaboration with Unicorns and Large Corporations: Abdillah et al (2023)

study on Danone AQUA reveals that partnerships with SMEs through shared value programs strengthen supply chain resilience while advancing the SDGs; 3.) Incentive-Based Government Policies: Regulations supporting green incentives (e.g., subsidies for eco-friendly technology) can accelerate TBL adoption, particularly in agro-industry and manufacturing sectors (Morioka & Carvalho, 2016); 4.) Enhanced Reputation and Access to Global Markets: Jia & Ma (2022) found that integrating TBL into CSR, such as Coca-Cola's recycling programs, improves customer loyalty and competitiveness in international markets.

These findings affirm that integrating the Triple Bottom Line (TBL) into business strategy is not merely an option but a strategic imperative requiring a holistic approach to manage the multidimensional tensions between profit, social equity, and environmental sustainability. By leveraging theoretical frameworks such as paradox theory and TBL's dominant logic, alongside support from venture capital and government regulations, businesses can foster a sustainable ecosystem that combines technological innovation, multi-stakeholder collaboration, and long-term commitment to achieve inclusive development aligned with the Sustainable Development Goals (SDGs).

CONCLUSION

This research concludes that the Triple Bottom Line (TBL) is a relevant sustainability framework for optimizing the roles of SMEs and large companies in Indonesia, even though its implementation faces multidimensional challenges. First, the limited access to capital, technology, and human resource capacity in SMEs is a major barrier to balancing the profit, people, and planet pillars. Second, unicorn and large companies like GoTo and Telkom have the potential to drive TBL integration through technological innovations (e.g., IoT, blockchain) and collaborative programs that enhance SME inclusion in sustainable supply chains. Third, studies show that TBL not only improves business reputation but also creates long-term competitive advantages, such as operational efficiency and customer loyalty. Fourth, the Stakeholder Theory and Resource-Based View serve as a critical foundation for understanding the dynamics between stakeholder interests, internal resources, and external regulations. Fifth, government regulations that support green incentives and technological assistance are necessary to accelerate the adoption of TBL, especially in the agro-industry and manufacturing sectors. Sixth, the synthesis of literature emphasizes that sustainability must be viewed as a holistic system integrating the three pillars of TBL, rather than merely separate initiatives. Seventh, this finding underscores the urgency of transforming business strategies in Indonesia to align with the Sustainable Development Goals (SDGs), with MSMEs as key actors in realizing inclusive and environmentally friendly economic growth.

SUGGESTION

Although this literature review provides valuable insights, several limitations must be acknowledged. First, the review only includes English-language publications from 2014 to 2024, potentially overlooking relevant evidence from other languages or different time periods. Second, the methodological heterogeneity and diverse research contexts analyzed may limit the generalizability of the findings. Third, the analysis focuses primarily on the organizational level, while factors at the individual and group levels may also play significant roles in the Triple Bottom Line (TBL) framework and its integration into corporate social responsibility (CSR) practices.

To address the limitations identified in applying TBL to SMEs, future research should

consider several strategic approaches. First, strengthening SME capacity can be achieved through sustained training and technological mentoring programs, facilitated by collaboration between governments, large corporations, and unicorns such as GoTo and Bukalapak. The digital platforms provided by these entities can assist SMEs in monitoring socio-environmental impacts and accessing global markets by integrating green technologies, such as IoT in sustainable agriculture. Second, inclusive partnership models should be developed through *shared value* initiatives that incorporate sustainable supply chains, aligning with Stakeholder Theory to bridge capability gaps and enhance SME economic resilience. Third, optimizing technology for sustainability should focus on specific digital solutions, such as blockchain for supply chain transparency or AI for environmental impact forecasting, in line with Bocken (2015) findings on disruptive technologies as levers for sustainability.

Additionally, governments must design adaptive regulations and incentives, including fiscal incentives for SMEs adopting green practices and ESG certifications contextualized to Indonesia's conditions, addressing structural barriers identified by (Morioka & Carvalho, 2016). Education and business certification institutions should integrate TBL principles into curricula and standards, such as training in environmental management (*planet*) and social reporting (*people*), to foster awareness and accountability among new entrepreneurs. Further research is also needed to develop TBL indicators tailored to SMEs, such as metrics for local resource efficiency or measurable social impacts.

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