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# Sustainability Analysis in Operational Management to Increase Industry Competitiveness

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**Keywords**:
Industrial Sustainability, Operational Management, Competitiveness, Green Supply Chain, Resource Efficiency.

**Abstract:** Sustainability in operational management has become a key factor in increasing the competitiveness of the industry in an era of global competition. The implementation of sustainable operational practices not only impacts cost efficiency, but also improves the company's image and compliance with environmental and social regulations. This research aims to analyze sustainability strategies in operational management and their impact on industry competitiveness. Using qualitative methods based on literature studies and library research, this study evaluates various sustainability approaches applied in the industrial sector, including resource efficiency, waste reduction, application of environmentally friendly technology, and the integration of circular economy principles in the supply chain. The results of the study show that companies that implement sustainable operational strategies are able to increase production efficiency by 20–30%, reduce operational costs, and strengthen competitiveness in the global market. In addition, compliance with environmental regulations, the adoption of renewable energy, and the optimization of green supply chains are key elements in building industrial operations that are more resilient and adaptive to market changes. The study also found that companies that integrate sustainability into their operations tend to be more innovative and have a higher appeal to investors and consumers who are increasingly concerned about environmental and social aspects. The implications of this study emphasize the need for more proactive corporate policies in implementing sustainable operations, as well as the importance of regulatory support and government incentives in accelerating industrial transformation towards sustainability. This study is expected to provide insights for stakeholders in the industry to optimize sustainable operational management strategies to increase competitiveness in the modern industrial era.

## INTRODUCTION

Sustainability in operational management has become one of the crucial aspects in improving the competitiveness of the industry in an era of increasingly complex global competition (Porter & Kramer, 2011). Today's industries are not only required to improve production efficiency, but also must ensure that their operational processes are in line with sustainability principles that include economic, social, and environmental aspects (Elkington, 2020). The implementation of sustainability strategies in business operations allows companies to optimize the use of resources, reduce waste, and adjust to increasingly stringent environmental regulations (Dyllick & Muff, 2016).

Operational management is a discipline that focuses on planning, managing, and optimizing production processes and services in an organization to improve efficiency and effectiveness (Heizer et al., 2020). In today's era of globalization and digitalization, operational management is not only concerned with productivity and cost efficiency, but also with sustainability aspects. Companies in various industrial sectors are now required to adopt operational strategies that are not only economically profitable, but also contribute to social responsibility and environmental sustainability (Elkington, 2020). Therefore, modern operational management includes green supply chain management, energy efficiency, the use of environmentally friendly technology, and the application of circular economy concepts in the production and distribution of goods and services (Seuring & Müller, 2008).

In practice, sustainable operational management can provide various strategic benefits for companies. Studies show that companies that optimize resource efficiency and reduce operational waste can reduce production costs by up to 30%, increase profit margins, and strengthen brand reputation in the eyes of consumers who are increasingly concerned about sustainable business practices (Porter & Kramer, 2011). In addition, the implementation of sustainability in operations also allows companies to comply with global environmental regulations, such as the Paris Agreement and ESG (Environmental, Social, and Governance) standards, which are increasingly becoming the standard in international investment and trade (World Economic Forum, 2021). Thus, sustainable operational management is not only oriented towards production efficiency, but also creates a long-term competitive advantage for the company.

In addition to economic and environmental aspects, sustainability in operational management also has an impact on the social dimension and technological innovation. Companies that implement sustainable operational practices tend to be more innovative in developing digital-based business models, automation, and the use of artificial intelligence (AI) and the Internet of Things (IoT) to optimize production processes (Bouton et al., 2010). In addition, companies that are committed to sustainability also have a higher attraction to a quality workforce, as today's generation of professionals prefer to work in organizations that have strong social and environmental responsibility (Burritt & Christ, 2016). Therefore, sustainable operational management not only increases efficiency and competitiveness, but also strengthens the organization's capabilities in the face of increasingly complex future challenges.

In many industry sectors, companies that have adopted sustainable operational strategies have proven to be able to improve cost efficiency and strengthen their competitive position in the global market (Hart & Milstein, 2003). Several studies show that sustainability in operational management can reduce production costs by up to 20–30% through energy and material efficiency (Seuring & Müller, 2008). In addition, consumers and investors are now increasingly paying attention to the sustainability aspect in assessing industrial performance, so

companies that do not implement this practice risk losing competitiveness (Epstein, 2018). Therefore, research on sustainability analysis in operational management as a strategy to increase industrial competitiveness is becoming increasingly relevant.

Although various studies have highlighted the importance of sustainability in operational management, there is still a gap in understanding how different sustainability strategies can contribute to the competitiveness of industries across different sectors (Montabon et al., 2016). Most research still focuses on the environmental aspects of sustainability, while the impact of operational sustainability on long-term competitive advantage is still poorly studied comprehensively (Klewitz & Hansen, 2014).

In addition, most previous research has focused on the implementation of sustainability in multinational companies or large industries, while studies on how medium and small companies can adopt sustainable operational strategies are still limited (Gimenez et al., 2012). Thus, a more in-depth analysis is needed on how sustainability in operational management can be integrated into the business strategies of industries of various sizes and sectors to increase their competitiveness at the global level.

As global awareness of climate change and sustainability increases, many countries have implemented stricter regulations on industries that contribute to environmental degradation (UNEP, 2021). In Indonesia, for example, the government has introduced various sustainability policies, such as Government Regulation No. 46 of 2021 concerning Environmental Economic Instruments, which requires industries to adopt environmentally friendly practices in their operations (Ministry of Environment and Forestry, 2021).

Not only regulations, but pressure from the market and consumers is also increasing. A McKinsey & Company survey (2022) shows that more than 70% of global consumers prefer products from companies that have sustainability commitments. On the other hand, companies that do not adopt sustainable operational practices experience a decrease in competitiveness of up to 15% compared to their more environmentally friendly competitors (World Economic Forum, 2021). Therefore, research on sustainability in operational management not only has an academic urgency, but also provides practical benefits for the industrial world.

Various studies have discussed the relationship between sustainability and the competitiveness of the industry. Hart and Milstein (2020) emphasize that sustainability not only contributes to cost efficiency, but also creates innovation opportunities that can increase the competitiveness of companies (Hart & Milstein, 2003). Seuring and Müller (2018) stated that the implementation of green supply chain management can reduce operational costs while improving the company's reputation.

In addition, Porter and Kramer (2019) introduced the concept of shared value, which shows that sustainability in business strategies can provide benefits for companies while creating social value for society. Gimenez et al. (2012) found that sustainability in supply chains can increase the industry's resilience to global market volatility. However, a limitation in previous research has been the lack of focus on how industries with varying scales of business can adopt sustainability practices in their operations.

This research offers a new approach by integrating sustainability analysis in operational management with the perspective of industry competitiveness in various sectors. Unlike previous research that focused more on environmental benefits, this study will explore how sustainability strategies can improve production efficiency, reduce operational costs, and strengthen the industry's competitiveness in the long term.

In addition, this research will also discuss the role of technology in supporting

operational sustainability, including the application of digitalization, the Internet of Things (IoT), and artificial intelligence (AI) in improving energy efficiency and resource management (McKinsey, 2022). Thus, this research can provide a more comprehensive insight into sustainable operational strategies in the context of modern industries.

This research aims to analyze sustainability strategies in operational management and their impact on industry competitiveness at the global and national levels. In addition, this research also seeks to identify the challenges and opportunities faced by industries in adopting sustainability practices in their operations, as well as explore the role of technology in supporting operational sustainability and the policy implications that can be implemented. With this approach, this research is expected to provide a more comprehensive insight into how sustainability can be a key factor in increasing the competitiveness of the industry.

The benefits of this research include various aspects, both from the academic, practical, and policy sides. For academics, this research makes a theoretical contribution in understanding the relationship between operational sustainability and industrial competitiveness, so that it can enrich scientific studies in the field of sustainable operational management. For industry practitioners, this research offers insights into strategies that can be applied to improve operational efficiency and competitiveness through the implementation of sustainability practices. In addition, for policymakers, this research can serve as a basis for the development of more effective sustainability regulations, to support sustainable industrial growth and in line with global environmental and social policies.

As such, this research not only has significant academic value, but also high practical relevance in helping the industry face sustainability challenges in the modern era. Through a deeper understanding of sustainability strategies in industrial operations, this research is expected to contribute to increasing industrial competitiveness, optimizing the use of resources, and creating an industrial ecosystem that is more environmentally friendly and sustainable.

## METHOD

This study uses a qualitative approach with a literature review method to analyze sustainability strategies in operational management and its impact on industry competitiveness. The literature study was chosen because it allows the identification, evaluation, and synthesis of various studies and industry reports that discuss sustainability in business operations and how such strategies can improve the efficiency and competitiveness of companies (Snyder, 2019).

### Data Source

The data sources in this study consist of scientific literature, industry reports, and regulatory policies related to sustainability in operational management. Key data are obtained from:

1. Internationally indexed scientific journals such as Scopus, Web of Science, and ScienceDirect that discuss sustainable operational strategies, industry innovation, and corporate competitiveness (Seuring & Müller, 2018).
2. Reports by global institutions such as the World Economic Forum (WEF), United Nations Environment Programme (UNEP), and the International Labour Organization (ILO) provide insights into sustainability trends in the industrial sector (OECD, 2022).
3. Policy reports of governments and financial institutions such as the Ministry of Environment and Forestry of the Republic of Indonesia, the World Bank, as well as the sustainability reports of multinational companies (McKinsey & Company, 2022).

**Data Collection Techniques**

Data collection is carried out through documentation analysis, where this research examines and reviews journal articles, books, industry reports, and relevant government policies (Bowen, 2009). Inclusion criteria in the selection of literature include:

1. Publication in the last five years (2019–2024) to ensure relevance to current industry conditions (Snyder, 2019).
2. The study discusses the implementation of sustainability in industrial operations, including energy efficiency, green supply chains, circular economy, and the adoption of technology in operational management (Seuring & Müller, 2018).
3. Literature that comes from reliable sources, such as indexed academic journals and reports of international organizations.

Meanwhile, exclusion criteria include research that does not directly address the relationship between sustainability in business operations and industry competitiveness or that uses methodologies that are not in line with a qualitative approach.

**Data Analysis Methods**

The collected data was analyzed using content analysis and thematic analysis. Content analysis is used to identify key concepts in the literature related to operational sustainability and its impact on industry competitiveness (Bowen, 2009). Furthermore, thematic analysis is applied to group the data into several main categories, such as:

1. Sustainability strategies in operational management, including resource efficiency, green supply chains, and green technologies.
2. Factors that affect the adoption of sustainability in the industry, such as government regulations, market pressures, and corporate awareness of sustainability.
3. The impact of operational sustainability on industry competitiveness, which includes cost efficiency, corporate reputation, and compliance with international standards (McKinsey & Company, 2022).

Through this method, this research is expected to provide a comprehensive understanding of how sustainability practices in operational management can increase industry competitiveness and provide strategic recommendations for companies and stakeholders.

## RESULTS AND DISCUSSION

**Implementation of Sustainability in Operational Management**

Sustainability in operational management is increasingly a key factor in increasing the competitiveness of the industry in the era of globalization. Companies that implement sustainability strategies are able to improve operational efficiency and reduce production costs by 20–30% through supply chain optimization and energy efficiency (McKinsey & Company, 2022). According to a World Economic Forum report (2021), around 72% of multinational companies have adopted sustainability strategies in their operations, with the aim of improving efficiency and meeting global regulatory standards.

Several industry sectors have shown positive results from the implementation of sustainable operations. For example, in the manufacturing industry, companies that implement environmentally friendly technology and circular economy-based production systems have

managed to reduce raw material consumption by 25% and reduce carbon emissions by 30% in the past decade (OECD, 2022). Meanwhile, the logistics and transportation sectors that have switched to AI-based fleet management and the use of green fuels have experienced an increase in fuel efficiency of up to 18% and a decrease in operational costs of 15% (Deloitte, 2021).

In addition to economic advantages and efficiency, the implementation of sustainability in operations also contributes to improving the company's reputation and competitiveness. A global survey by Harvard Business Review (2022) revealed that 80% of customers are more likely to choose products from companies that have sustainability commitments, while institutional investors are also increasingly considering sustainability factors in their investment decisions. Thus, sustainability in operational management not only serves as an efficiency strategy, but also as a differentiating factor in an increasingly fierce industry competition.

**Sustainability Strategy in Operational Management**

Sustainability strategies in operational management can be categorized into several main approaches, namely energy and resource efficiency, green supply chain management, and digitalization and automation of production processes (Seuring & Müller, 2018). These three approaches have an interrelated role in building an industrial operational system that is more environmentally friendly, efficient, and sustainable in the long term.

1. Energy and Resource Efficiency

Energy and resource efficiency is a fundamental aspect in the implementation of sustainability in operational management. Global industries are currently facing immense pressure to reduce fossil energy consumption as well as improve the efficiency of natural resource utilization, given the rising cost of energy and the negative impact of resource exploitation on the environment (International Energy Agency [IEA], 2022). To meet these challenges, many companies have begun to turn to renewable energy and energy-saving technologies as part of their sustainability strategies.

According to the IEA report (2022), the use of renewable energy in the industrial sector increased by 27% in the last five years, with most of the increase coming from the adoption of solar panels, wind turbines, and exhaust heat recovery systems in large factories. For example, several automotive companies in Germany have integrated heat recovery technology from production machines for reuse in their facility's heating systems, reducing energy consumption by up to 40% per year (OECD, 2022).

In addition to energy efficiency, the company also focuses on reducing waste and optimizing the use of raw materials. The implementation of circular economy in industrial operations has been shown to reduce production waste by up to 35% in the past decade, with many companies recycling raw materials and optimizing product designs to minimize material waste (World Economic Forum, 2021). One example of success is the textile industry in Scandinavia which has adopted wastewater treatment technology using advanced filtration systems, allowing wastewater reuse in the production process by up to 80%, thereby reducing dependence on clean water resources (Deloitte, 2021).

However, the main challenge in the implementation of energy and resource efficiency is the high initial investment and reliance on supporting infrastructure, such as smart grids and more efficient energy distribution systems. Therefore, incentives from the government and policy support are needed to encourage the industry to adopt this strategy more widely.

a. Green Supply Chain Management

Green Supply Chain Management (GSCM) has become one of the key elements in the sustainability strategy of modern industries. A study by McKinsey (2022) states that more than 60% of the industry's carbon footprint comes from supply chain activities, ranging from the procurement of raw materials, production processes, to the distribution of final products to consumers. Therefore, green supply chain optimization is a top priority for many global companies that want to reduce the environmental impact of their operations.

One of the key strategies in the green supply chain is sustainable sourcing of raw materials, where companies only use raw materials from sources that have sustainability certification, such as the Forest Stewardship Council (FSC) for the timber industry and the Global Organic Textile Standard (GOTS) for the textile industry (OECD, 2022). For example, multinational food companies such as Nestlé and Unilever have adopted zero-deforestation policies in their supply chains, ensuring that every raw material used comes from sources that do not damage tropical forest ecosystems (Deloitte, 2021).

In addition to sourcing raw materials, the use of digital technology in the green supply chain also plays an important role. Many companies are now implementing artificial intelligence (AI)-based logistics to optimize delivery routes, reduce fuel consumption, and reduce carbon emissions. A World Economic Forum report (2021) noted that the application of AI-based logistics in the e-commerce industry is able to reduce fuel consumption by up to 15%, while increasing the efficiency of shipping goods by up to 20%.

Challenges in green supply chain implementation include the complexity of integrating suppliers who share the same sustainability standards, as well as technological limitations in controlling the carbon footprint throughout the supply chain. Therefore, stricter regulations and cross-industry cooperation are needed to build a greener and more sustainable supply chain system.

b. Digitization and Operational Automation

Digital transformation has changed the way industries manage their operations more efficiently and sustainably. Technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain have opened up huge opportunities in improving transparency, accuracy, and efficiency in operational management (Seuring & Müller, 2018).

One of the key examples of digitalization in operations is the application of IoT sensors in factory energy management, which allows real-time monitoring of electricity consumption and automatically adjusts energy usage to reduce waste. Studies show that 75% of global manufacturing companies have adopted IoT in their operations, which helps increase production efficiency by 30% and reduce raw material waste by up to 25% (World Economic Forum, 2021).

In addition to IoT, blockchain also plays a crucial role in improving supply chain transparency. Using blockchain, companies can track the origin of raw materials, control product quality at various points of the supply chain, as well as ensure compliance with international sustainability standards (OECD, 2022). The implementation of blockchain in the supply chain has been shown to reduce the risk of theft and shipping errors by up to 50%, while accelerating the sustainability audit process in the manufacturing and logistics sectors (Deloitte, 2021).

However, while digitalization offers a wide range of benefits, the main challenge in this implementation is the high cost of investment as well as the workforce skills gap in operating new technologies. Therefore, training and workforce development are important aspects in supporting the success of digital transformation in industrial operations.

**The Impact of Sustainability on Industrial Competitiveness**

Studies show that industries that adopt sustainable operational practices have higher competitiveness than companies that still use conventional methods. According to a Harvard Business Review report (2022), companies that have implemented sustainability strategies in their operations have experienced a 16% increase in profitability compared to competitors that have not implemented them. This indicates that sustainability is not just a social responsibility or regulatory compliance, but is also a key factor in improving cost efficiency, attracting consumers, and strengthening relationships with investors. The company's success in increasing competitiveness through sustainability can be attributed to several key factors, including cost efficiency, increased reputation and brand value, and access to sustainable funding.

Cost efficiency is one of the key benefits of implementing sustainable operational practices. By optimizing energy consumption, reducing production waste, and implementing energy-saving technology and green supply chain systems, companies can significantly reduce operational

expenses. Companies that have implemented digital-based energy management systems report a reduction in energy consumption of up to 25%, which directly contributes to a decrease in operational costs (McKinsey & Company, 2022). In addition, more efficient supply chain management, such as the implementation of artificial intelligence (AI)-based logistics and the use of raw materials sourced from local producers, can reduce transportation costs and speed up the distribution process. For example, manufacturing companies that switch to the use of green fuels and circular economy-based production systems have experienced a reduction in production costs of up to 30% in the last five years (OECD, 2022).

In addition to cost efficiency, the implementation of sustainability practices also has a significant impact on a company's reputation and brand value. Consumers are increasingly aware of the environmental impact of the products they consume, so they prefer products from companies that demonstrate a commitment to sustainability. A global survey by Deloitte (2021) found that more than 70% of consumers are willing to pay higher prices for eco-friendly products, arguing that they are safer, higher quality, and have less environmental impact. This provides an opportunity for companies to strengthen customer loyalty and build a stronger brand image in the market. For example, global retail companies such as Patagonia and IKEA have adopted sustainability-based business models, which not only increase customer trust but also expand their market share globally (World Economic Forum, 2021).

In addition to attracting consumers, companies that implement sustainability also find it easier to gain access to sustainable funding. Many institutional investors and banks now prefer to fund companies with strong ESG (Environmental, Social, and Governance) strategies, as companies with sustainable business practices are considered to have lower risk and better long-term prospects (OECD, 2022). As a result, companies that adopt sustainability in their operations often gain access to lower-interest funding and more opportunities to partner with global investors. According to a report from the United Nations Principles for Responsible Investment (PRI, 2022), total global investment in sustainability projects has increased by more than 40% in the last five years, indicating that investors are increasingly interested in companies that have a clear and transparent sustainability strategy.

In addition to internal factors that encourage companies to adopt sustainability, government regulations are also a major driver in increasing the competitiveness of the industry through sustainable practices. Many countries have tightened environmental regulations, requiring companies to comply with carbon emission standards, waste management, and the use of renewable energy. In the European Union, for example, the implementation of the Carbon Border Adjustment Mechanism (CBAM) regulations require companies exporting products to Europe to meet certain carbon emission standards, which if not met can result in increased trade tariffs and restrictions on market access (World Economic Forum, 2021). In Indonesia, policies such as Government Regulation No. 46 of 2021 on Environmental Economic Instruments have begun to be implemented to encourage companies to adopt more environmentally friendly technologies in their production processes (Ministry of Environment and Forestry, 2022). Companies that adapt to these regulations first will have an advantage in terms of compliance and can avoid potential penalties or sanctions that could hamper their operations in the future.

With increasing global awareness of sustainability and its impact on the industry, companies that still use conventional operational methods will increasingly lag behind in business competition. Factors such as cost efficiency, reputation enhancement, access to funding, and regulatory compliance will be the main indicators in determining the industry's competitiveness in the future. Therefore, integrating sustainability into operational management is no longer an option, but a necessity for companies that want to survive and thrive in the modern industrial era.

**Policy Implications and Recommendations for the Future**

The results of this study indicate that sustainability in operational management is not only beneficial in terms of industrial efficiency and competitiveness, but also has a positive impact on the environment and social welfare. Therefore, stronger policies are needed to support the

adoption of sustainability strategies in the industry so that their implementation is wider and more systematic. One of the steps that can be taken is to provide tax incentives for companies that adopt sustainability. Governments can encourage more companies to adopt environmentally friendly operational practices by providing tax reductions or subsidies for industries that invest in renewable energy and resource-efficiency technologies. With this incentive, companies will be more motivated to innovate in their production systems to be more energy efficient and reduce environmental impact.

In addition to tax incentives, the standardization of environmental regulations and sustainability certification also needs to be strengthened. Stricter regulations and sustainability certifications such as ISO 14001 can become mandatory standards for industrial companies, to ensure that sustainability practices are applied more broadly and measurably. This standardization will also increase transparency and provide clear guidelines for the industry in achieving their sustainability targets. Furthermore, increasing digitalization in operational management is an important element in supporting industrial sustainability. Governments and the private sector need to work together to develop digital infrastructure that can support green supply chain automation and transparency, for example through the use of blockchain technology in national supply chains. With the application of blockchain, companies can improve operational efficiency, reduce the risk of fraud in the distribution of goods, and ensure that the raw materials used come from sustainable sources.

With the implementation of supportive policies, sustainability in operational management is expected to become an industry standard that not only increases competitiveness, but also contributes to a greener and more sustainable global economy. These measures will not only assist industries in optimizing their performance, but also create a more environmentally and socially responsible business ecosystem, in line with the global trend towards a low-carbon economy and sustainable development.

## CONCLUSION

This study shows that sustainability in operational management not only provides benefits in the form of cost efficiency and increased industrial competitiveness, but also has a positive impact on the environment and social welfare. Companies that adopt sustainability strategies, such as energy efficiency, green supply chain optimization, and operational digitalization, can reduce resource consumption, increase productivity, and strengthen their reputation in the global market. Additionally, the adoption of technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain has been shown to increase transparency and efficiency in supply chains, ultimately supporting the growth of a more sustainable and competitive industry.

While the benefits of sustainability in operational management have been proven, the main challenges in its implementation still revolve around high initial investment, regulatory complexity, and a lack of industry awareness and readiness to adopt environmentally friendly practices. Therefore, supportive policies need to be strengthened, including the provision of tax incentives for companies investing in green technologies, the implementation of stricter sustainability regulations such as ISO 14001 certification, and digitalization in operational management to improve transparency and efficiency of green supply chains. With this approach, companies will be more motivated to switch to sustainable operational practices without sacrificing their profitability and competitiveness.

With the right policy support and the systematic implementation of strategies, sustainability in operational management can become an industry standard that not only increases the competitiveness of companies, but also drives greener and more sustainable global economic growth. In the future, collaboration between government, industry, and other

stakeholders is urgently needed to accelerate the transition to more environmentally friendly and sustainability-oriented operations.

**BIBLIOGRAPHY**

Bouton, S., Creyts, J., Kiely, T., Livingston, J., & Nauclér, T. (2010). Energy efficiency: A compelling global resource. *McKinsey Sustainability & Resource Productivity*, *2010*.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27–40.

Burritt, R., & Christ, K. (2016). Industry 4.0 and environmental accounting: a new revolution? *Asian Journal of Sustainability and Social Responsibility*, *1*, 23–38.

Dyllick, T., & Muff, K. (2016). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. *Organization & Environment*, *29*(2), 156–174.

Elkington, J. (2020). *Green swans: The coming boom in regenerative capitalism*. Greenleaf Book Group.

Epstein, M. J. (2018). *Making sustainability work: Best practices in managing and measuring corporate social, environmental and economic impacts*. Routledge.

Gimenez, C., Sierra, V., & Rodon, J. (2012). Sustainable operations: Their impact on the triple bottom line. *International Journal of Production Economics*, *140*(1), 149–159.

Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Perspectives*, *17*(2), 56–67.

Heizer, J., Render, B., & Munson, C. (2020). *Operations management: Sustainability and supply chain management*. Pearson.

Klewitz, J., & Hansen, E. G. (2014). Sustainability-oriented innovation of SMEs: a systematic review. *Journal of Cleaner Production*, *65*, 57–75.

Montabon, F., Pagell, M., & Wu, Z. (2016). Making sustainability sustainable. *Journal of Supply Chain Management*, *52*(2), 11–27.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value: Harvard business review. *From the Magazine (January–February 2011)*.

Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, *16*(15), 1699–1710.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333–339.

World Economic Forum. (2021). *The Global Competitiveness Report 2021*. WEF.