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Exploring Circular Solutions for Economic Growth and Decent Work: SDG 8 and Accounting Perspective

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ABSTRACT

This study aims to explore circular solutions for economic growth and decent work, drawing insights from SDG 8. Embracing a circular economy can promote sustainable development by decoupling economic growth from resource depletion and environmental degradation. Circular practices benefit SDG 8 by creating new job opportunities, fostering innovation, and achieving inclusive economic growth. From an accounting perspective, the study investigates how these circular economy practices impact financial reporting and cost management. By examining the costs associated with recycling, reuse, and recovery of materials and their effects on production expenses and revenues, this research connects circular economy initiatives to sustainable accounting practices. Collaboration among stakeholders - government, private sector, civil society, and the public - is vital for successful implementation. Through collective efforts, Indonesia can move towards a more sustainable and inclusive economy, prioritizing decent work opportunities and environmental responsibility. This study recommends how accounting frameworks can be adapted to reflect the economic and environmental benefits of circular practices, ensuring that financial reporting supports sustainable development goals.

1. INTRODUCTION

Sustained economic growth and decent work are key elements in achieving global development goals. In the Context of the Sustainable Development Goals (SDG), goal number 8 has been set to promote inclusive economic growth and decent work for all (Frey, 2017). Almost all countries are trying to achieve this goal, of course, with the encouragement of innovation, regulations and other equipment needed to achieve this goal. In recent years, the circular economy has emerged as an attractive approach to achieving sustainable economic growth and creating decent jobs (Suwignyo *et al.*, 2021). The circular economy promotes the efficient use of natural resources, reduces waste, and extends product life cycles through practices such as recycling, recovery and reuse. This is in contrast to the traditional linear economic model, which generates high amounts of waste and relies on limited natural resources (Velenturf and Purnell, 2021).

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In the context of Sustainable Development Goals (SDG) Number 8, it is important to explore how circular solutions can contribute to decent job creation and sustainable economic growth (Rai, Brown and Ruwanpura, 2019; Kusumawati et al. 2023). The circular economy can create new job opportunities in sectors such as recycling, repair and reuse through the use of circular practices, such as recovery and recycling. In addition, through innovation and sustainable business development, a circular economy can help create productive jobs and generate inclusive economic growth (Ghisellini, Ripa, and Ulgiati, 2017). This article will explore circular solutions that can significantly contribute to achieving Sustainable Development Goals (SDG) number 8. We will analyze some of the lessons learned from successful implementation of circular practices and case studies that are relevant. In addition, we will also discuss challenges and opportunities in advancing the circular economy agenda in the context of Sustainable Development Goals (SDG) Number 8. It is hoped that this article will provide a deeper understanding of the role of the circular economy in achieving sustainable economic growth and decent work, as well as provide insights for policy makers, practitioners and other stakeholders on steps that can be taken to advance the circular economy agenda. in support of Sustainable Development Goals (SDG) number 8.

Data on the impact of utilizing the circular economy in Indonesia, through the 2022 report of the Ministry of National Development Planning (Bappenas, 2022), shows that the circular economy carried out in Indonesia through 36 initiators from various actors such as the government, business actors and NGOs shows a positive impact from the circular economy, namely:

Table 1. The Impact of Utilizing the Circular Economy

No	Sector	Impact
1	Operational Cost Savings	> Rp. 431.91 billion
2	Job Creation	+ 14,270 people
3	Emission Reduction	> 1.4 Million Tonnes CO ₂ E
4	Energy Saving	>4.8 Million MWH
5	Decreased Water consumption	> 252 thousand m ³
6	Waste Reduction	> 827 thousand tons

Source: Ministry of National Development Planning / Bappenas, 2022

In table 1 above, the magnitude of the impacts and benefits of implementing a circular economy is known. At several points, it appears that the circular economy can create jobs for more than 14,270 workers, where the processes and stages of the circular economy have an impact on empowering the workforce. Of course, this data is a strong reason for writing this paper, as it allows us to explore the implementation of the circular economy and its relationship to Sustainable Development Goals (SDG) number 8 further.

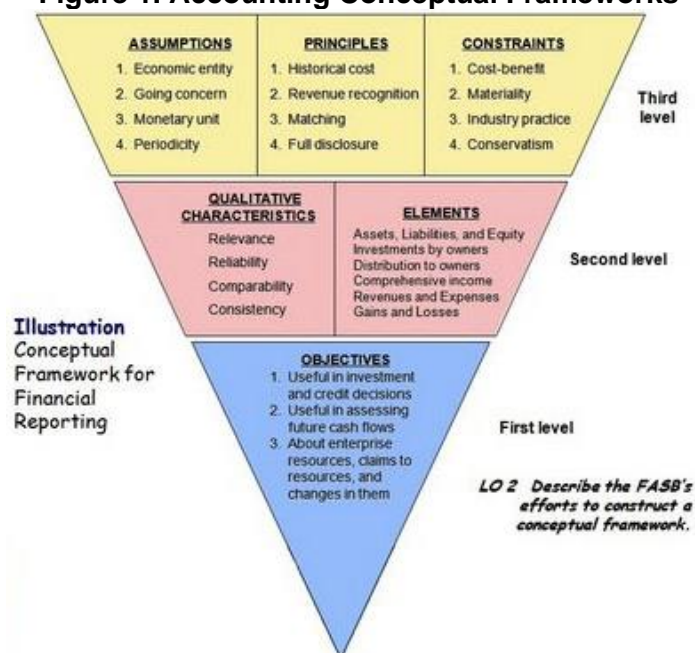
2. LITERATURE REVIEW

In determining a research topic in the field of accounting, an approach that can be used as a basis for selecting a topic related to accounting can refer to the Accounting Conceptual framework model, which includes three levels of accounting concepts in the preparation of financial statements (Macve, 2010). If a research topic is related to or discusses one of the parts of this framework, it can be stated that the research is part of an accounting research topic. The research presented below relates to the circular economy, which supports economic growth and decent work, which is goal number 8 of the Sustainable Development Goals. The relationship of the circular economy, which involves principles such as reuse, recycling, and recovery of materials, is obviously related to the production costs of recycled materials (Patwa *et al.*, 2021). The costs or financial potential that arise from this will be

evident from the results of this research, showing the circulation of money from trade, both import and export of waste with various partner countries, in this context at the level of Indonesia and its partners. In the accounting conceptual framework, this falls into level 2, which relates to revenues and expenses.

Accounting Conceptual Frameworks

Figure 1. Accounting Conceptual Frameworks



Furthermore, the concept of going concern in level 3 of the accounting conceptual framework relates to the resilience or sustainability of an entity in maintaining its business continuity, with the expectation that every existing business will continue indefinitely. This is also related to the concept of sustainability, which aims for continuity, associated with economic growth, decent work, and environmentally conscious development (Karsam et al., 2024). Thus, profit orientation can be balanced with other factors.

Sustainable Development Goals

The SDG (Sustainable Development Goals) program is a global framework established by the United Nations (UN) to address the various social, economic, and environmental challenges facing the world today. The goal of the SDG program is to achieve sustainable development worldwide by 2030. There are 17 SDG goals covering various aspects of sustainability, including eradicating poverty, food security, health, education, gender equality, environmental protection and just peace (United Nations Development Programme, 2021). The SDGs are a continuation of the Millennium Development Goals (MDGs) which were agreed upon by UN member states in 2000 and ended at the end of 2015. Unlike its predecessors, the SDGs accommodate development issues more comprehensively and qualitatively (by accommodating development issues that are not included in the MDGs) as well as quantitative targeting complete completion of each of its goals and objectives. The SDGs are also universal in nature providing a balanced role to all countries, both developed countries, developing countries and less developed countries to fully contribute to development, so that each country has the same roles and responsibilities as one another in achieving the SDGs (Panuluh and Fitri, 2016).

Sustainable Development Goals No 8

Focusing on SDGs Number 8, set by the United Nations (UN), it aims to "ensure sustainable, inclusive economic growth and decent work for all." SDG 8 covers aspects such

as creating decent jobs, promoting equal employment opportunities, increasing productivity, and paying attention to issues such as fair wages, job security, and social protection (United Nations, 2015a). SDG 8 involves several targets to be achieved (United Nations, 2015b), among others: (1). Achieve sustainable and productive economic growth, as well as increase labor productivity. (2). They are reducing unemployment rates, especially among youth and women. (3). Increase access for all to decent work, including social protection. (4). Ensure protection of workers' rights, stop child labour, and eradicate forced labor and other forms of exploitation. (5). Encouraging policies that support the development of small and medium enterprises and facilitating access to banking, finance and markets. (6). Increase economic sustainability in developing countries by mobilizing foreign direct investment, development, and technical assistance.

In addition, other goals published by the United Nations are more detailed (United Nations, 2015b), that is: (1). Maintain per capita economic growth according to national circumstances and, in particular, at least 7 percent annual gross domestic product growth in the least developed countries. (2). Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on labor-intensive, high-value-added sectors. (3). Promote development-oriented policies that support productive activities, create decent jobs, entrepreneurship, creativity, and innovation, and promote the formalization and growth of micro, small, and medium enterprises, including through access to financial services. (4). Increase gradually, through 2030, global resource efficiency in consumption and production, and strive to decouple economic growth from environmental degradation, following the framework of the ten-year program on sustainable consumption and production, with developed countries as the frontrunners. (5). By 2030, achieve full and productive employment and decent work for all women and men, including for youth and persons with disabilities, and equal pay for work of equal value. (6). By 2030, reduce the proportion of youth who are working, in school or in training will be significantly reduced. (7). Take urgent and effective action to eradicate forced labor, end modern slavery and human trafficking, and ensure the prohibition and elimination of the worst forms of child labor, including the recruitment and use of children as soldiers, and by 2025 end child labor in all its forms. (8). Protect labor rights and promote a safe and secure work environment for all workers, including migrant workers, in particular migrant women and those working in unstable jobs. (9). By 2030, design and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products. (10). Strengthen the capacity of domestic financial institutions to encourage everyone's expands access to banking, insurance, and financial services for everyone. a). Enhance aid for trade support to developing countries, particularly least developed countries, through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries. b). By 2020, develop and operate a global strategy for youth employment and implement the International Labor Organization's Global Jobs Pact.

Economic Circular

A circular economy is an economic approach that focuses on the efficient and sustainable use of natural resources by minimizing waste and encouraging materials reuse, recycling, and recovery (Ellen, 2017). The circular economic model contrasts with the traditional linear economy based on production, consumption, and disposal. In a circular economy, products and materials are kept in the economic cycle for as long as possible, to reduce environmental impact and create added value. The transition to a circular economy model requires various preparations from the industry and government side as well as education for consumers' understanding of the circular economy concept itself. In addition, the role of consumers is also needed to maintain their behavior in implementing a circular economy, such as borrowing and sharing a product, and giving products to other parties rather than being destroyed or thrown away. The most visible example that can be used as a case study in applying the right circular economy is regarding how waste is processed in Indonesia.

This arises because the condition of Indonesia's population is very dense with high consumption patterns, so the application of a circular economy is expected not only to be a solution for the environment but can also support from an economic and equity perspective as SGD number 8 (Salguero-Puerta *et al.*, 2019).

The circular economy cycle (Arthur *et al.*, 2022) refers to the flow of processes that involve the sustainable use of resources in the economy. This cycle consists of several interrelated stages, involving the collection, processing, use, and recovery of resources, with the following description: (1). Extraction of Resources: The first stage in the circular economy cycle is extracting resources from the environment. It includes raw materials such as minerals, metals, biomass, and energy. The circular economy approach seeks to optimize the use of natural resources by considering factors such as availability, sustainability, and environmental impact. (2). Production and Processing: Once the resources are extracted, the next stage is producing and processing materials into usable products. At this stage, circular economy principles, such as recyclable product design, use of recycled materials, renewable energy, and environmentally friendly technologies, are applied. The goal is to reduce waste and resource efficiency. (3). Use and Consumption: After the product is manufactured, the next stage is use and consumption by the end users. In a circular economy, the goal is to extend product life as much as possible by practices such as maintenance, repair, and shared use. This approach helps reduce waste and the need for new production. (4). Recovery and Recycling: After the product life is over, the final step in the circular economy cycle is recovery and recycling. Materials and product components that are no longer used are collected, processed, and returned to the economic cycle. This process involves recycling, reuse, energy recovery, and waste treatment to reduce environmental impact and maximize the value of reusable materials. By implementing a circular economy cycle, the main goal is to reduce dependence on limited natural resources, reduce waste, reduce environmental impact, and create long-term economic sustainability

3. RESEARCH METHOD

The writing of this article is based on the method of literature study. This method involves an analysis of relevant literature, research articles, reports, and other sources on the circular economy, the goals of SDG 8, and other related approaches regarding the concept, theory, implementation, benefits, and challenges of the circular economy in the context of SDG 8 (Ghisellini, Cialani and Ulgiati, 2016). The type of data used in this study is secondary data, which is obtained from various sources, including reports, books, journals, websites, and other materials related to the research.

The data collection method involves observation and documentation techniques, which are used to gather historical data valuable for the research. The data selected corresponds to the observation year 2022 and includes data from the Ministry of Environment and Forestry (KLHK), the Ministry of National Development Planning (BAPPENAS), and UN Comtrade data related to the circular economy. In the analysis for concluding, the researcher will link various data that have been collected and relate it to the current application based on regulations and practical possibilities in the field, according to the available data. This allows for recommendations and suggestions to be made for future implementation. At the end of the discussion, the researcher will relate the findings of this study to various previous studies, so that it can serve as a reference for future researchers.

4. RESULTS

Result

Table 2. Composition of Waste in Indonesia by Type

No	Name	Value / percent	Total Waste 19.45 million tonnes
1	Leftovers	41.55	8.081 million tonnes of waste
2	Plastic	18.55	3.607 million tonnes of waste
3	Wood/Twigs	13,27	2.581 million tonnes of waste
4	Paperboard	11.04	2.147 million tonnes of waste
5	Metal	2.86	556 thousand tons of waste
6	Cloth	2.54	494 thousand tons of waste
7	Glass	1.96	381 thousand tons of waste
8	Rubber/Leather	1.68	326 thousand tons of waste
9	Other types of trash	6.55	1.273 million tonnes of waste

Source: Ministry of Environment and Forestry (KLHK), 2022

Table 3. Map of Indonesia's Plastic Waste Trade (January – November 2022)

No	Country	Status (Import) in USD	No	Country	Status (Export) in USD
1	Dutch	US\$ 11,214,904	1	Ireland	US\$ 1,686,614
2	German	US\$ 4,879,316	2	Belgium	US\$ 1,072,744
3	Belgium	US\$ 3,401,720	3	United States of America	US\$ 844,254
4	Australia	US\$ 2,528,596	4	Vietnamese	US\$ 487,924
5	United States of America	US\$ 2,249,537	5	Italy	US\$ 336,771
6	Singapore	US\$ 2,239,669	6	Spanish	US\$139,216
7	Slovenia	US\$ 1,101,237	7	Portugal	US\$107,525
8	Japan	US\$ 937,034	8	China	US\$102,549

Source: UN Comtrade, 2022

Table 4. Circular Economy Initiators in Indonesia

No	Sector	Executor Name	Impact
1	Government	MYCL (mycotech Lab)	Environmentally friendly waste treatment, where laboratory waste is usually disposed of, is now being sought to minimize its amount and be used for other derivative industries
		Jakarta International Stadium	The use of environmentally friendly synthetic grass by standards and post-event integrated waste management in the field
		Ministry of PUPR	They are prioritizing the assignment of jobs in the ministry based on environmental care, from planning to selecting project

			implementers for the Ministry of Public Works and Public Housing.
2	Private	PT Sido Muncul, Tbk	Conduct research using the remaining production results in materials that can be reprocessed.
		PT Tirta Investama (Danone-Aqua)	Using waste treatment effectively and efficiently
3	NGO	Urutsewu Independent Energy Village, Boyolali	Utilizing village potential by using waste as an independent energy source, in addition to preserving nature, can also increase the number of workers in the village in managing self-sustaining energy urutsewu, in Boyolali
		Plastic Free Market, Local Government Collaboration	It is a movement initiated by the local government to carry out a plastic waste-free policy, in which traders and buyers use containers other than plastic to carry groceries.

Source: Ministry of National Development Planning, 2022

Discussion

The implementation of a circular economy in Indonesia can contribute significantly to the achievement of SDG Number 8, which includes decent work and sustainable economic growth. Several steps can be taken to implement a circular economy in Indonesia: (1). Promoting Effective Recycling and Waste Management Practices. Governments can strengthen policies and regulations that encourage broader recycling practices in various sectors, including managing solid waste, e-waste and plastic waste. This can involve developing adequate recycling infrastructure, training the associated workforce, and incentivizing industries to participate in recycling practices (Kementerian Lingkungan Hidup dan Kehutanan, 2019). Based on table 2 and table 3, it is known that the economic potential that may arise in waste management, especially plastic waste that can be recycled has significant economic value. This condition encourages the need for an adequate mechanism in terms of regulations, business agreements, management, waste collection, and markets that can help circular economy processes run. Do not let this potential even be missed because of the inability of management to respond to changing times and trends that are increasingly advanced at this time. In addition, based on table 3, what needs to be considered is the amount of imports which is far greater than the amount of plastic waste exports. One of the things that encourages the industrial sector to import large quantities of plastic waste is because domestic waste has not been properly segregated, making it difficult for the industrial sector to process this waste. As a result, the industry chose to import waste from various countries to become raw material for industrial processing in Indonesia. (2). Improving Sustainable Product Design: Governments and industry can work together to promote more sustainable product designs, with a focus on using raw materials that are more environmentally friendly, easily recyclable and have a longer shelf life. This could include developing sustainable design standards, providing tax incentives or financial support to

companies adopting sustainable designs, as well as educating consumers about the importance of choosing environmentally friendly products (Ellen Macarthur Foundation, 2020). This can be done by referring to table 2, where it is known that there are various types of waste. If this waste is managed properly, it has the potential to become a basic material in making product designs, and of course all of this cannot be separated from the waste manager or waste bank, but rather the culture in the community towards the surrounding waste. In addition, if we use data from table 4, it is known that there are many initiators in implementing circular economy. This implementation needs to be an example to other parties so that the implementation of the circular economy can be more widely spread so as to reduce environmental impacts while increasing the amount of labor absorption. (3). Infrastructure Development and Innovation in the Recycling Industry: Governments can encourage the development of modern and efficient recycling infrastructure, including waste processing facilities and recycling centers. In addition, support and incentives can be provided to industry players in adopting innovative technologies to increase the efficiency of recycling processes, such as waste segregation, energy recovery, and the use of green technologies (Forum, 2021). (4). Encouraging Partnerships and Collaboration: Collaboration between the government, the private sector and civil society is very important in encouraging the implementation of a circular economy in Indonesia. This is illustrated in table 4. Each sector can perform its role well; for example, the government can facilitate partnerships and cooperation between various stakeholders, including industry, research institutions, financial institutions, and civil society, to accelerate the adoption of circular practices and expand impact (UNIDO, 2018). (5). Resource Efficiency: The circular economy focuses on the efficient use of resources, by reducing the use of natural resources and maximizing the value of existing resources. By adopting recycling, recovery, and reuse practices, a circular economy can reduce the need for new raw materials, reduce pressure on limited natural resources, and optimize the use of existing resources. This is in line with the SDG 8 target which emphasizes sustainable economic growth and efficient use of resources (European Commission, 2020). (6). Innovation and Entrepreneurship: The circular economy encourages innovation and entrepreneurship in the development of sustainable solutions. By adopting a circular-based approach, businesses can create products that last longer, are easier to recycle, and focus on a more efficient use of resources. This not only creates new jobs in the innovation and entrepreneurship sector but also promotes the development of sustainable solutions that contribute to inclusive economic growth (Rizos et al, 2015)

5. CONCLUSION

Based on the above description, it can be concluded that the implementation of the circular economy in achieving Sustainable Development Goal (SDG) Number 8 offers a sustainable approach to economic growth, with a focus on resource efficiency, waste reduction, and sustainable consumption. Through practices such as recyclable product design, using renewable energy, adopting recycled materials, and effective waste management, the circular economy can contribute to global goals for sustainable economic growth. The implementation of the circular economy can create new opportunities for job creation, particularly in sectors such as recycling, recovery, and green technology innovation. In the context of SDG Number 8, the circular economy can help achieve goals such as sustainable economic growth, decent work, financial access, protection of labor rights, reduction of child labor, and the eradication of forced labor.

The implication is expected to expand the application of the circular economy to many sectors, from the government, private, and non-governmental organizations to the public directly. Economic independence will be achieved if jobs can be opened as widely as possible.

Besides that, the concept of circular economy will provide a balance for improving nature damaged by waste that could not be appropriately managed.

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