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THE INFLUENCE OF THE CIRCULAR ECONOMY ON ECONOMIC GROWTH: LITERATURE REVIEW

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Abstract

The objectives of this study, based on the framework of realizing the circular economy model, are: a) Knowing the environmental factors that influence the circular economy and b) Knowing the circular economy variables that affect economic growth. This study uses the method of literature analysis from various research literature that has been done. The data used is secondary data: books and international journals. The results of the study can conclude two things. First, the circular economy affects economic growth through: a) The importance of development from an environmental sustainability perspective, b) Business innovation that takes into account environmental aspects, c) Recycling economic activities that do not reduce environmental quality, d) the importance of investing in recycling infrastructure and natural resources innovative. Second, the factors that influence the circular economy are a) Human Capital, b) Development with an environmental sustainability perspective, c) Maintaining the value of resources, d) Socio-ecological and anthropological factors, e) Business innovation, f) Innovation of social progress, h) Redesign of processes and cycles of materials, h) Need for public attention, i) Need to promote 3R on circular consumption, j) Goods/services management system, k) Invest in recycling infrastructure.

Keywords: circular economy, environmental sustainability, resources, recycling, innovation

A. INTRODUCTION

As a developing country, Indonesia is now actively adapting the CE (Circular Economy) pattern in various main sectors that play a role in the country's development. The adaptation of the CE concept aims to create economic growth based on maximizing the use value of products, materials, and resources in the Economy (National Development Planning Agency, 2021). Several potential sectors are the primary concern of the Indonesian government in implementing a circular economy with an estimated percentage of the country's total waste generated in 2030. Those are food and beverage (88.6%), construction (52.8%), wholesale and retail trade (plastic packaging)) (7.5%), Textiles (3.9%), and Electricity and electronic equipment (2.5%) (Bappenas, 2021).

Whereas the World Economic Forum stated several circular economy principles (Circular Economy, in the future abbreviated as CE), the aim is to design so that waste as products can be optimized for reuse. So that later we get the differentiation between consumable and durable components in a product. In addition, the energy required for this cycle must be renewable by nature to reduce dependence on resources and increase the system's resistance to these goods. Meanwhile, according to the Ministry of Industry of the Republic of Indonesia (Kemenperin), the main principles contained in a circular economy are 5R, namely Reduce, Reuse, Recycle, Recovery, and Repair. These five principles can be carried out by reducing material use (reduce) through the use of materials that can be reused and the use of recycled materials (recycled) or from the recovery process or by carrying out a repair process.

The circular economy provides an economic and development paradigm for substantial improvements to increase the efficiency of resource use while taking into account environmental quality, economic welfare, and social equity (Ellen MacArthur Foundation, 2013; Korhonen et al., 2018; Skawińska & Zalewski, 2018; Weigend Rodríguez et al., 2020). This concept has received attention since the late 1970s, recognizing the possibility of future resource scarcity and environmental degradation due to exploitation activities. Over time, the reduced available resources cause other economic problems by increasing prices (Ellen MacArthur Foundation, 2013). The condition makes the traditional linear economic concept known as 'take-make-consume-dispose' incompatible with current challenges. When products are immediately disposed of at the end of their useful life, significant financial loss through material loss of resources is unavoidable. Without further processing for safe disposal, the waste disposed of can cause environmental damage and impact society in general.

The objectives of this study are: a) Knowing based on theoretical studies and library research environmental factors that influence the circular economy, b) Knowing based on descriptive studies of circular economy variables that affect economic growth. Discussion of the research will use the literature analysis method (library research).

B. LITERATURE REVIEW

The circular economy is an alternative to the traditional linear economy (make, use, waste) where economic actors keep resources as long as possible, extract the maximum value from their use, then recover and regenerate these goods at each end productive age. CE is a restorative and regenerative industrial system with a design that replaces the 'end of life' concept of products with renewable energy, eliminates the use of toxic chemicals, and aims to eliminate waste through the superior design of materials, products, systems, and business models. In the CE system, resource use, waste, emissions, and wasted energy are minimized by closing the production-consumption cycle by extending product life, design innovation, maintenance, reuse, remanufacturing, recycling, and recycling into other products (upcycling). In the sustainability of plastic products, for example, the concept of CE can be applied in several ways: recycling plastic, upcycling plastic as an asphalt mixture for roads, converting low-value plastic into fuel or energy, and so on

The concept of CE is still at a stage of development and is currently receiving significant attention, especially in efforts to implement sustainable development. The perspective of sustainable development includes three dimensions: social, economic, and environmental. (Korhonen et al., 2018). CE's overarching definition is from the concept of sustainable development and means "an economic system built within a consumption society system that maximizes the output from the linear nature of society into a system that has flowing power." CE Concept This is accomplished by rotating and flowing cyclical materials; renewable energy seeks a source, and subsequent power utilizes the recycled resource of the material. The circular economy is believed to be successful in supporting all three dimensions of sustainable development.

Initiatives to adapt living systems to modern systems, economies, and industrial processes advocate utilizing the maximum amount of resources without losing the value of the potential uses of the goods or products. The production system in a closed channel through repetition can prevent economic losses from value utilization series by maintaining resources in the 'repetition' system and not being wasted when meeting the end of the use of the goods/products directly (McDonough & Braungart, 2002). The

circular Economy (CE) introduces 'zero waste,' i.e., to the system by making the best use of the resources consumed, or in other words, making waste an input for other processes. This concept is believed to create resilience in production systems in several areas of goods production. They maintain ecological balance, industrial ecosystem, industrial symbiosis, and environmentally safe income (Korhonen et al., 2018).

Among the essential classical theories relating to a society's development (production) is the "Theory of economic stagnation" from David Ricardo, which was introduced in 1817. Sustained economic growth is challenging due to limited land (Land scarcity) and the enactment of the iron law of wages (Iron law of wages), so the labor market is difficult to form in a free market system. The classical group's pessimistic thinking was finally answered because discoveries (scientific discoveries) were produced in the following period, and in the production process, there were technical changes (Gillis, Perkins, Roemer, Snodgrass, Nafziger, E Wayne, Todaro Michael P, Jinghan., 2021)

The Harrod-Domar theory extends Keynes's theory of national economic activity and full employment, which explains the conditions that must be created to ensure that production as a result of investment achieves full employment. This theory emphasizes the role of capital determination in creating economic growth. The formation of capital will increase production and the effective demand of society. Or in simple language, it is said that the "Warranted rate of growth" is the economic growth that must be achieved so that the means of capital from investment achieve full employment (Gillis et al., 2021)

One of the thoughts of the Neo-classical group regarding the model of economic growth is that put forward by Robert Solow. He uses the Cobb-Douglas production function: That is, $Y = TK\alpha L\beta$. Where Y is output, T is Aotomious spending (technology), K is capital, and L is labor. In principle, this theory emphasizes the importance of saving and capital formation. Furthermore, in line over time, the model was improved by Mankiw-Roemer-Weil-Schultz to become: $Y = TK\alpha L\beta H\gamma$, where H is human capital. However, this model has undergone improvements. However, adding at least two things is worth adding: a. Savings & problem capital formation in a perfect competition market, b. There are rapid technological changes (Gillis et al., 2021)

Robert Lucas believes that there are international wage differentials in practice. Furthermore, Paul Roemer believes that endogenous technology can complement the weaknesses of neo-classical, which include: a. Technological innovation or change. b. Production techniques and new inventions (New ideas). However, these two thoughts have more or less correct the weaknesses of the previous theory. However, many have been criticized for several reasons. This theory is no better than neo-classical in measuring sources of growth. This group generally explains that developing countries can achieve a high Return on Investment even though the Capital-Labour Ratio is low through Complementary Investment, namely: a. Education, b. Research and development, c. Infrastructure improvement (Gillis et al., 2021).

Jouni Korhonen (2018) stated that the circular Economy (CE) is currently a popular concept promoted by the European Union (EU), several national governments, and many businesses worldwide. However, the scientific and research content of the CE concept is shallow and unorganized. CE seems to be a collection of vague and separate ideas from several fields and semi-scientific concepts. This article aims to contribute to scientific research on CE. First, we should define the concept of CE from the perspective of sustainable development and sustainability science. Second, critically

analyze the idea from an environmental sustainability perspective. CE is important because of its power to engage the business community and policy-making community in sustainability work

Vasileios Rizos (2017) said that CE changing the linear economy, which has remained the dominant model since the beginning of the Industrial Revolution, to become a circle is not an easy task. Such radical changes require significant transformations of our current production and consumption patterns, which will significantly impact the economy, environment, and society. Understanding this impact is crucial for researchers and policymakers in designing future field policies. It requires in-depth knowledge of circular economy concepts, processes, and expected effects on sectors and value chains.

Sehnem (2019) stated that there is a high degree of convergence. There is a dearth of studies identifying practices that yield empirically tested benefits. The business and community case for non-linear production is still primarily built on conceptual modeling and a few case studies. Despite the normative focus, there is very little use of theory, especially management theory

Brais Suarez-Eiroa et al. (2019) said that scientific literature on circular Economy (CE) is still scarce, and good conceptual discussions and the development of practical strategies for its implementation. While CE systems are being implemented, CE goals and principles need to be considered and better translated into action and more coordinated effort among different levels of implementation. This study resulted in seven operational principles: i) adjusting the input to the system to the level of regeneration, ii) adjusting the output of the system to the level of uptake, iii) shutting down the system, iv) maintaining the value of the resources in the system, v) reducing the system size, vi) designing for CE, and vii) educate for CE. It is essential to emphasize the role of design and education as transversal elements

Arcía-Barragán et al. (2019) said that the circular Economy (CE) might lead to ambiguous (ambiguous) definitions. For this reason, it is possible to define CE through measures and circular economy as a metric (size) function through material flows of system values. Specifically, we propose a metric derived from maximizing the value to society of materials used to produce merchandise that provides consumer services. These metrics can accommodate recycling capabilities and alternative strategies, such as extended life times and new business models that enhance the productivity of commodities.

Frianta (2020) said that the circular Economy (CE) has recently become a popular discourse, especially among government and corporate sectors. Given the Anthropological socio-ecological challenges, the CE concept can help transition to a sustainable, just, and resilient future. For this reason, the steps are as follows: first, examine and reflect on the CE concept's core challenges, gaps, and limitations. Second, develop a comprehensive circularity thinking timeline, which identifies and conceptually classifies CE-related ideas.

Suchek et al. (2021) said that the circular economy emerged as an alternative model for the linear system, which now seems to have reached its physical limitations. To transition to a circular economy, companies must be aware of and engage in more sustainable practices. For such a transition, companies must rethink and innovate their business models and how they propose value to their clients while considering environmental and social aspects.

Manea (2021) said that quality of life and social welfare are the objectives of any country's social policies. The study aims to identify the influence of the circular economy, digital innovation, and sustainable entrepreneurship on social progress. It complements the current approaches identified in the literature by assessing the dependencies between the phenomena they represented. The factors that influence social progress are achieved by placing some synthetic indicators, such as a composite index, which will surprise the complexity of the analysis of the phenomenon.

Murray et al. (2015) stated that the Circle Economy emphasizes redesigning the processes and cycles of materials, which might lead to a sustainable business model. Also, the social dimension, which is inseparable from sustainable development and also ethical constraints

Zink and Geyer (2017) stated that the Circular Economy (CE) could increase overall income, which can partially or fully increase their benefits. Since there is a strong parallel to the energy efficiency reflection, we have included this effect as a "rebound circular economy." The mechanisms that allow the circular economy to recapture include the limited ability of secondary products to substitute for primary products and the impact on prices.

Millar et al. (2018) said that despite the individual prominence of the Circular Economy and Sustainable Development in the academic and broader literature, the exact relationship between neither concept had been thoroughly defined or explored. The consequent result is the various inconsistencies that exist throughout the literature about how a Circular Economy can function as a tool for Sustainable Development and an incomplete understanding of how its long-term effects differ from a "linear" economy. This research concludes a close relationship between the Circular Economy and Sustainable Development.

Taranic et al. (2016) said it is necessary to rethink the circular economy concept through its relevance to multiple stakeholders. This research presents a schematic framework that breaks down the circular economy into eight fundamental building blocks and shows how they relate to each other regarding the multiplicity of the actors involved.

Hotta et al. (2019) suggested that this policy summary suggests six priorities for developed and developing countries represented by the G20 countries to mainstream the circular economy and society globally, as follows: 1) need to seize the momentum raised by public concern about marine plastic pollution; 2) increasing the level of ambition of Extended Producer Responsibility; 3) provide policy support for circular economy business models; 4) promote environmental circulation and regional ecology to enhance bottom-up initiatives at the local level; 5) improve coordination and harmonization of international policies for circular economy and society; and 6) incorporate planetary boundaries into the circular Economy and community indicators. It includes further assignment suggestions for countries where this policy already exists.

Bueren et al. (2021) said that the circular Economy (CE) emerged as a solution for the development within regions and planetary boundaries for environmental and social justice. That CE can be monitored on: (a) absolute performance, quantification of economic resource inputs, stocks, and waste-outputs; (b) efficiency performance, monitoring the optimization of CE processes such as recycling, reuse, or even sharing and virtualization; (c) policy performance to monitor the strategy of regional stakeholders. Resource grouping can create hierarchies based on metrics, usage, system-limits, or emergencies.

Al Kufy (2021) provided an overview of waste management through a circular economy in the Middle East. Waste management is a global problem because humans also waste resources as raw materials. It is the biggest problem faced by humans on Earth. The condition needs the attention of representative governments from around the world. The Middle East has recently shown concern about the amount of waste produced.

Ruihui Pu et al. (2021) explained that a sharing economy is a potential approach to promoting sustainable development. It found about collaborative and sustainable consumption, climate change, and bioeconomy in different economies by country, such as renewable resources and business models, circular Economy in China, and life cycle assessment, especially taking evidence from urban mobility services in China. It was also revealed that there is indiscipline (multidisciplinary approach) as a research trend in sustainable development fields such as sustainable business models, game theory, blue economy, peer-to-peer accommodation, smart grid, and electric vehicles.

Yang et al. (2014) stated that circular consumption is an integral part of a circular economic system to sustain economic growth and reduce environmental degradation and depletion of resources. Based on the reduce-re-use-recycle (3R) principles of Circular Economy theory, it enables circular consumption in society and accelerates pro-3R lifestyle changes at the household level. The framework consists of 3R functions to support citizen circular consumption practices, carbon labeling and credit schemes, partnership programs with producers and distributors, and mechanisms to form pro-3R habits and sustainable lifestyles in society.

Perdana (2021) stated that Used Cooking Oil (UCO) has become a fashion life inherent in Indonesian society because frying is the primary cooking method. This study found that the absence of a UCO governance network contributed to establishing private-sector UCO collection initiatives and community-based programs. The adoption of CE in the case of UCO was emphasized to varying degrees in the waste segregation and collection system.

Maters and Luttik (2021) explained that the circular economy is a topic researched by Wageningen University & Research (WUR). In addition to better waste management, WUR seeks to reduce the use of resources in its management operations. The goal is to achieve a 50% reduction in resource use by 2030, compared to 2014. This ambition follows the circular economy policy launched by the Dutch government.

Soumyananda (2018) stated that recycling economic activities contribute to economic growth without degrading the environment. Trica et al. (2019) developed a methodology for studying the sustainability of circular economic models based on environmental factors. In an open-end system, waste is converted back to materials and objects through recycling; hence, the linear economy is changed to a circular economy. Environmental factors support the argument for the sustainable implementation of a circular economy. The purpose of this study is to present the economic aspects of the circular economy sustainable development based on the findings of the economic literature in the field.

Wojcik (2017) explained that it is first essential to consider the unique risks and promises for business and the economy, then propose a foundation for adoption as a viable alternative to the traditional. A network structure in which companies from related industries with the same goals work together and actively involve customers in the company's activities can more effectively share risks. This network should be highly transparent and based on trust rather than purely on formal contracts.

Androniceanu et al. (2021) said that promoting and implementing sustainable production and consumption practices has become a priority to obtain social and economic benefits. , and the environment. The circular economy is based on an integrative approach that requires analyzing all relevant factors that can determine changes in the classical linear economic growth model. The research objective is to identify and analyze the contributors to the circular economy and its evolution in EU member states from three broader perspectives: sustainable development, environment, and economic growth. The study results show that the circular economy is a strategic choice capable of creating a competitive advantage and driving sustainable economic growth.

C. ANALYSIS METHOD

This study used the method of library research. This study will examine the effect of the circular economy on economic growth. Then look for answers about the factors that influence the circular economy. Whereas several factors influence the circular economy, we group them into two groups, namely the environmental factor group and the non-environmental factor group. This research method focuses on answering all the questions in this research, namely about the influence of the Circular Economy Model on economic growth.

Library research is research in which data collection is carried out by collecting data from various literature. The literature studied is not limited to books but includes documentation, magazines, journals, and newspapers. Library research emphasizes finding different theories, laws, propositions, principles, opinions, ideas, and others that can be used to analyze and solve the problems studied. Library research or library research is a series of activities related to library data collection methods, reading and recording, and processing library collection materials alone without the need for field research. Library research is research that uses techniques to obtain information data by placing existing facilities in the library, such as books, magazines, documents, and records of historical stories (Zed Mestika, 2004)

D. RESULT AND DISCUSSION

From several previous studies that have been submitted in the literature review section, there are several important environmental factors in the ongoing circular economy, as shown in the table below:

Table 1: Literature Summary Environmental factors (in a broad sense) that affect the Circular economy

Number	Library Resources	Results Summary
	Book	
1	Buku : a) Gillis, Perkins, Roemer, Snodgrass. Economics of Development. 5th Ed. WW Norton & Co. New York. 2021. b) Nafziger, E Wayne. The Economics of Developing Countries. 5th Ed. Prentice Hall. New Jersey. 2012. c) Todaro Michael P. Economics Development. 12th Ed. Longman. New York. 2014.	- Importance of discoveries (scientific discoveries) - The volume of production techniques (technical changes). - The importance of capital formation in creating economic growth. - The importance of capital tools from the investment must achieve full employment. - the importance of saving and capital formation

	d) Jinghan. The economy of development and planning. Vita's publishing. 6th Ed. 2011.	- The importance of human capital (Human Capital). - The importance of "Complementary Investment," namely: a. Education, b. Research and development, c. Infrastructure repair.
	Journal	
1	Jouni Korhonen (Jouni Korhonen et al., 2018), in his research entitled "Circular Economy: The Concept and its Limitations."	- The concept of CE from the perspective of sustainable development and sustainability science. - The concept from the perspective of environmental sustainability. - CE is important because of its power to attract the business community and policy-making community to sustainability work.
2	Vasileios Rizos (Vasileios Rizos et al., 2017), in his research entitled "The Circular Economy A review of definitions, processes, and impacts."	- map the processes involved and their applications in various sectors - the circular economy is currently fragmented across multiple disciplines, and there are often different perspectives and interpretations of the concept and related aspects that need to be assessed
3	Simone Sehnem (Simone Sehnem et al., 2019), in his research entitled "Circular economy: benefits, impacts and overlapping."	- The presence of a high degree of convergence. - Requires multidisciplinary studies
4	Brais Suarez-Eiroa (Brais Suarez-Eiroa et al., 2019), in his research entitled "Operational principles of a circular economy for sustainable development: Linking theory and practice."	- CE needs to be considered and better translated into action, and more coordinated effort between different levels of implementation.Pentingnya mempertahankan nilai sumber daya dalam sistem,
5	Arcía-Barragán (Arcía-Barragán et al., 2019), in his research entitled "Defining and Measuring the Circular Economy: A Mathematical Approach."	- CE, through the measure, defines the circular economy as a function of metric (size). - The metric can accommodate recycling capabilities and alternative strategies, such as extended lifetimes and new business models that enhance the productivity of commodities.
6	Martin Calisto Frianta (Martin Calisto Frianta, 2020), in his research entitled "A typology of circular economy discourses: Navigating the diverse visions of a contested paradigm."	- Given the Anthropological socio-ecological challenges, the CE concept can help transition to a sustainable, just, and resilient future.
7	Nathalia Suchek (Nathalia Suchek et al., 2021), in his research entitled "Innovation and the circular economy: A systematic literature review."	- Companies must rethink and innovate their business models and how they propose value to their clients while considering environmental and social aspects. - Recommend selecting priority areas of the economy that meet international standards of excellence.

Table 1: continued..

Number	Library Resources Journal	Results Summary
8	Daniela-Ioana Manea (Daniela-Ioana Manea, 2021), in his research entitled "Circular Economy And Innovative Entrepreneurship, Prerequisites For Social Progress."	- Continuous innovation and entrepreneurship on social progress. - Adaptation of digital technologies in current business models development of sustainable, innovative entrepreneurship supports the transition from a linear economy to a circular economy.
9	Murray A (Murray A et al., 2015), in their research entitled "The Circular Economy: An interdisciplinary exploration of the concept and its application in a global context,"	- The Circle Economy emphasizes redesigning the processes and cycles of materials, which may lead to a sustainable business model. - An economic model that plans, resources, procures, produces and processes redesigns and regulates, so that processes and their outputs, maximize ecosystem function and human well-being".
10	Trevor Zink and Roland Geyer (Trevor Zink and Roland Geyer, 2017), in their research entitled "Circular Economy Rebound?",	- describes the mechanisms by which the circular economy can recoup, including the limited ability of secondary products to substitute for primary products and the impact on prices.
11	Neal Millar (Neal Millar et al., 2018), in his research entitled "The Circular Economy: Swings and Roundabouts? "	- The Circular economy can serve as a tool for Sustainable Development
12	Igor Taranic (Igor Taranic et al., 2016), in his research entitled "Understanding the Circular Economy in Europe, from Resource Efficiency to Sharing Platforms: The CEPS Framework,"	- must rethink the concept of the 'circular economy' through its relevance to a wide range of stakeholders.
13	Yasuhiko Hotta (Yasuhiko Hotta et al., 2019), in his research entitled "Six Proposals for Future Policies towards Circular Economy and Society."	- need to capture the momentum raised by public concern over ocean plastic pollution; - promote regional environmental circulation and ecology to enhance bottom-up initiatives at the local level
14	Bart J A Van Bueren (Bart J A Van Bueren et al., 2021), in his research entitled "Comprehensiveness of circular economy assessments of regions: a systematic review at the macro-level."	- The Circular Economy (CE) emerges as a solution for a thriving economy within regions and planetary boundaries for environmental and social justice. - That CE can be monitored on: absolute performance, quantification of economic resource inputs, stocks, and waste-outputs
15	Firas Al Kufy (Firas Al Kufy, 2021), in his research entitled "Middle East's Circular Economy Expectations for the Next Ten Years,"	- provides an overview of waste management through a circular economy in the Middle East.
16	Ruihui Pu (Ruihui Pu et al., 2021), in his research entitled "Sustainable development and the sharing economy: A bibliometric analysis."	- A sharing economy is a potential approach to promoting sustainable development.

Table 1: continued..

Number	Library Resources Journal	Results Summary
17	Q. Z. Yang (Q. Z. Yang et al., 2014), in his research entitled "A 3R Implementation Framework to Enable Circular Consumption in Community."	- Circular consumption is integral to a circular economic system to sustain economic growth and reduce environmental degradation and resource depletion. - Demonstrate the kinds of new approaches retail stores work and can take in driving 3R activities to achieve circular consumption goals.
18	Kjær, L. L. (Kjær, L. L, et al., 2018), in their research entitled "Product/Service-Systems for a Circular Economy: the route to decoupling economic growth from resource consumption?"	- The system of goods/services has the potential to lead to decreasing use of absolute resources.
19	B. Endo Gauh Perdana (B. Endo Gauh Perdana, 2021), in his research entitled "Circular Economy of Used Cooking Oil in Indonesia: Current Practices and Development in Special Region of Yogyakarta."	- The dimensions of CE, its limitations in governance and management, and social and cultural definitions are to be linked to an incentivized UCO collection model. At the same time, the business sector tends to drive limited UCO energy recovery.
20	Smitha J.S. and Albert Thomas (Smitha J.S. and Albert Thomas, 2021) in their research entitled "Integrated Model and Index for Circular Economy in the Built Environment in the Indian Context."	- Sustainable development aims to minimize waste and reduce the exploitation of natural resources and energy so that the needs of future generations can be met. - Develop an integrated CE model in the built environment that takes into account the different stages of construction and applicable strategies
21	Henry A. Colorado and Gloria Inés Echeverri-Lopera (Henry A. Colorado and Gloria Inés Echeverri-Lopera, 2020), in their research entitled "The solid waste in Colombia analyzed via gross domestic product: Towards a sustainable economy."	- An increase in GDP is also correlated with an increase in solid waste. - Discuss the waste generated to construct helpful information, such as gross domestic product (GDP).
22	Erna Maters and Joke Luttik (Erna Maters and Joke Luttik, 2021), in his research entitled "From Waste Management to Circular Resource Management."	- The success of the WUR (University) circular economy policy depends on acceptance and support by and behavior of students and employees. WUR also works with other organizations and companies.
23	Dinda Soumyananda (Dinda Soumyananda, 2018), in his research entitled "A Circular Economy Approach for Sustainable Economic Growth."	- Differentiate the product and its consumption, and highlight the recycling of waste, which reduces the pressure of natural resource extraction and creates pollution. - Recycling economic activities also contributes to economic growth without degrading the environment.
24	Carmen Lenuta Trica (Carmen Lenuta Trica et al., 2019), in his research entitled "Environmental Factors and Sustainability of the Circular Economy Model at the European Union Level."	- The extended Mankiw–Romer–Weil model is defined by resource productivity, employment environment, recycling rate, and environmental innovation. Investing in recycling infrastructure and innovative resources is essential in line with environmental protection and sustainable economic growth goals.

Table 1: continued..

Number	Library Resources	Results Summary
	Journal	
25	Alicja wojcik (Alicja Wojcik, 2017), in his research entitled "Risk Sharing in the Circular Economy."	- Demonstrates that a network structure, in which companies from related industries with the same goals work together and actively involve customers in the company's activities, can more effectively share risks.
26	Androniceanu Androniceanu et al., 2021), in his research entitled "Circular economy as a strategic option to promote sustainable economic growth and effective human development."	- Promoting and implementing sustainable production and consumption practices has become a priority for obtaining social, economic, and environmental benefits. - Circular economy is a strategic choice that creates competitive advantage and drives sustainable economic growth.

1. From table one above, it can be concluded that several things influence the ongoing circular economy, namely: Importance of discoveries (scientific discoveries)
2. Importance of production techniques (technical changes).
3. The importance of capital formation in creating economic growth.
4. The importance of capital tools from the investment must achieve full employment.
5. the importance of saving and capital formation
6. The importance of human capital (Human Capital).
7. The importance of "Complementary Investment," namely: a. Education, b. Research and development, c. Infrastructure improvement.CE from the perspective of sustainable development and sustainability science.
8. The concept is from the perspective of environmental sustainability.
9. The process involved various sectors
10. The need for coordination between different levels of implementation.
11. The importance of maintaining the value of resources in the system.
12. The importance of considering socio-ecological and anthropological
13. companies must think about innovating businesses that consider environmental and social aspects.
14. Continuous innovation and entrepreneurship on social progress.
15. Adaptation of digital technology in business models, development of sustainable, innovative entrepreneurship transition from a linear economy to a circular economy.
16. The Circle Economy emphasizes redesigning the processes and cycles of materials.
17. The circular economy can tie back and improve secondary products to substitute for primary products
18. The Circular economy can serve as a tool for Sustainable Development.
19. Need to involve public and private actors and industry and expand to cities and regions, SMEs, and multisectoral companies
20. The need for public attention to marine plastic pollution.
21. The sharing economy is a potential approach to promote sustainable development.
22. Whereas circular consumption is an inseparable part of the circular economic system

23. The need to encourage 3R activities to achieve circular consumption goals.
24. Whereas the goods/services management system has the potential to lead to decreasing use of absolute resources.
25. Need for governance and management, and social and cultural roles.
26. An increase in GDP is also correlated with an increase in solid waste.
27. Recycling economic activities also contributes to economic growth without degrading the environment.
28. Investing in recycling infrastructure and innovative resources is essential in line with environmental protection and sustainable economic growth goals.
29. The circular economy can more effectively share risks (Risk sharing).
30. The circular economy is a strategic choice to create a competitive advantage and drive sustainable economic growth.

Based on the results of literature searches and previous research, several environmental factors that influence the ongoing circular economy can be extracted, namely: a) The importance of human capital (Human Capital) related to environmental management, b) The importance of development from an environmental sustainability perspective, c) The importance of maintaining the value of resources in the system, d) The importance of considering socio-ecological and anthropological, e) Business innovation that takes into account environmental and social aspects, f) Innovation and sustainable entrepreneurship on social progress, g) Placing emphasis on process redesign and cycles of materials, h) The need for public attention to plastic pollution, i) The need to encourage 3R activities to achieve circular consumption goals, j) Goods/services management systems to reduce the declining absolute resource use, k) That GDP increases correlate with solid waste also increased, l) Economic activities mi recycling contributes to economic growth without degrading the environment, m) Invest in recycling infrastructure and innovative resources, n) The circular Economy can be more effective in sharing risks (Risk sharing).

E. CONCLUSION

Based on the research presented in the previous chapter, there are some conclusions in this research. *First*, The circular economy influences economic growth through a) The importance of development from an environmental sustainability perspective, b) Business innovation that considers environmental aspects, c) Recycling economic activities that do not reduce environmental quality, and d) investing in recycling infrastructure and innovative resources. \

Secondly, Several environmental factors that influence the ongoing circular economy can be extracted, namely: a) The importance of human capital (Human Capital) related to environmental management, b) The importance of development from an environmental sustainability perspective , c) The importance of maintaining the value of resources in the system, d) The importance of considering socio-ecological and anthropological, e) Business innovation that takes into account environmental and social aspects, f) Innovation and sustainable entrepreneurship on social progress, g) Placing emphasis on process redesign and cycles of materials, h) The need for public attention to plastic pollution, i) The need to encourage 3R activities to achieve circular consumption goals, j) Goods/services management systems to reduce the declining absolute resource use, k) That GDP increases correlate with solid waste also increased, l) Eco activities nomi recycling contributes to economic growth without degrading the

environment, m) Invest in recycling infrastructure and innovative resources, n) Circular Economy can be more effective in sharing risks (Risk sharing).

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