

CIRCULAR ECONOMY : THE SETTLEMENT OF ENVIRONMENTAL ETHICS PROBLEMS AND THE FUTURE OF NATIONAL ECONOMY

Ilhamsyah¹, Harkim³

¹⁾ Indonesian Professional College of Economics (STIE Profesional Indonesia) Medan, Indonesia

²⁾ Indonesian College of Economics (STIE Indonesia) Medan, Indonesia

Correspondence author : ilhamsyah891@gmail.com

ABSTRACT

The purpose of this paper is to explain the possible application of a circular economy model in Indonesia. Circular economy is closely related to environmental ethical problems, especially waste, as a result of the post-use benefit of an item. This paper is a qualitative reflective study with a literature study approach. Reflection is carried out in-depth with literature sources that are compatible and relevant to the study conducted. Thus, the data used are secondary data from credible sources that have been tracked by researchers. Secondary data are analyzed by interacting propositions, textual realities, and other statements considered important by the researcher.

The results of the study describe how a circular economy is an actual, moderate alternative to environmental economic and ethical issues. The predicted linear economic limitations do not guarantee balance and environmental sustainability has obtained a replacement model. Thus the circular economy is a potential model for the future of the national economy that needs to be developed.

Keywords: Circular Economy, Environmental Ethics, National Economy.

INTRODUCTION

The contemporary human problem with the environment is becoming a global issue that is increasingly becoming a concern. The relationship between humans and the environment is actually an ethical relationship, where the natural environment and humans hold an equal position. The natural environment is presented by God to humans not to be exploited, but to be used wisely and wisely for the benefit of mankind itself. If there is a human behavior that goes too far in treating the natural environment, then God has also established a mechanism of "retaliation" against humans. In an environment that is "angry" there is a causative element created by humans, so floods, landslides and increasingly random and extreme climate / weather amplitudes are evidence of the natural mechanism of the universe in seeking balance.

Human use of nature is a reality framed by economic transactions. More than that, the environment still has to bear the burden of post-utilization of an item / residual element for which there is no utility dimension. This is an ethical problem that should be something that "doesn't need to be realized" in the relationship between the two creations of God, man and the universe. One of the ethical problems when humans relate to the environment is the problem of waste which is increasing in number, with various variants. There is rubbish that is naturally easy to decompose by natural mechanisms, and there is rubbish that is almost eternal as rubbish, not easy and even impossible to decipher. The illustration below will illustrate how the garbage problem has become a world ghost.

Every year we throw away



300 million tons of plastic



500 million tons of electronic waste



1/3 of all food produced

Source: <https://www.ellenmacarthurfoundation.org>

The empirical data above is a manifestation of the existence of serious problems after the utilization of the economic value of an item. So far, human economic transactions with objects adhere to or have to be carried out using a linear economic model. This model has characteristics that we can see from the dimension of effectiveness that is not optimum. Linear economic models take a utilization path that ignores potential residuals by buying, using and throwing away. Meanwhile, the circular economy concept has the principles of production, use, and disposal, so that in the production process there is an empowerment to produce with materials that are declared suitable for use as raw materials.

Based on this empirical reality, this paper will discuss the probability of implementing a circular economy in Indonesia. This is at the same time a theoretical welcome to the problem of the relationship between waste, humans and its benefits in Indonesia. It is inevitable because the existence of waste is a residual necessity after the use of the economic value of an item. This country has had to think about actions that are wise to the environment and revive the economy on a circular basis which is potential and makes sense.

THEORETICAL FRAMEWORK

Circular Economy Concept

The idea of circularity has deep historical and philosophical origins. The idea of feedback, of cycles in real-world systems, is outdated and resonates across various philosophical schools. It enjoyed a resurgence in industrialized countries after World War II when the emergence of computer-based studies of non-linear systems clearly revealed the complex, interrelated, and therefore unpredictable nature of the world we live in - more akin to metabolism than to machines. With today's advancements, digital technology has the power to support the transition to a circular economy by increasing virtualization, de-materialization, transparency and radically feedback-driven intelligence.

What is meant by a circular economy is a resource utilization system in which a process of reduction, reuse and recycling occurs (Schröder, et al, 2019). Regarding the increase in economic value, Susilo, Rikardo, and Suyamto (2017) see that the increase in economic value from the use of waste is very useful to improve people's lives.

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

Thus companies need to build core competencies in circular designs to facilitate product reuse, recycling and degradation. Circular product (and process) design requires advanced skills, information chains and work methods. Areas critical to economically successful circular designs include: material selection, standard components, products designed to last, designs for easy end-of-life sorting, separation or reuse of products and materials, and design criteria for production that take into account possible useful applications of byproducts and waste.

At the implementation level, especially at the micro scale in the community, a method is needed that inspires active participation in the activity domain. A representative approach in this case is community empowerment, which in turn is economic empowerment. The resultant to be

achieved is a society that is economically empowered from time to time. In this context, participatory community empowerment is carried out using the participatory rural appraisal model. This is an approach method in the process of empowering and increasing community participation, which emphasizes community involvement in all activities carried out (Usadolo, Caldwell, 2016; Lara et al, 2018).

Environmental Ethics

There are three theories regarding environmental ethics, namely: anthropocentric, biocentric and ecocentric. Each theory has an assumption or perspective, but the intersection that is achieved in the end is a harmonious relationship between humans and the natural environment / universe.

Anthropocentrism is a theory of environmental ethics that views humans as the center of the universal system. Anthropocentrism is also a philosophical theory which says that moral values and principles only apply to humans and that human needs and interests have the highest and most important values. For this theory, ethics only applies to humans. Therefore, all demands regarding the need for human moral obligations and responsibilities to the environment are considered as excessive, irrelevant, and inappropriate demands.

According to Albert Schweitzer, biocentrism ethics is rooted in the awareness that life is sacred. This awareness encourages humans to always try to defend life and treat life with respect. For Albert Schweitzer, a truly moral person is one who is subject to the urge to help all life, when he himself is able to help and avoid anything that endangers life.¹⁷ Biocentrism ethics are based on the unique relationship between man and nature, and the values that exist in nature itself. Nature and all its contents have dignity and value in the middle and in the community of life on earth. Nature has value because there is life in it. Regardless of what moral obligations and responsibilities humans have towards their fellow humans, humans have an obligation and moral responsibility towards all creatures on this earth for the benefit of mankind.¹⁸

The theory of ecocentrism offers an increasingly adequate understanding of the environment. Moral concern is expanded to include the entire ecological community, both living and non-living. Eco-centrism is increasingly being expanded into deep ecology and ecosophy which greatly inspires human understanding of the interests of the entire ecological community. Deep ecology demands a new ethic which not human-centered, but centered on the whole of life with an effort to overcome environmental problems.¹⁹ The concept of eco-centrism is further expanded and deepened through the deep ecology theory which calls the basis of Arne Naess's philosophy of the environment as ecosophy, namely the wisdom of regulating life in harmony with nature. Thus, human beings with full awareness are asked to develop a wisdom of mind and a will to live in a relationship and interdependence with the entire contents of the universe as a lifestyle that is increasingly in harmony with nature.²⁰

METHOD

This paper is a qualitative reflective study with a literature study approach. Reflection is carried out in-depth with literature sources that are compatible and relevant to the study conducted. Thus, the data used are secondary data from credible sources that have been tracked by researchers. Secondary data are analyzed by interacting propositions, textual realities, and other statements considered important by the researcher. The interactive relationship between the data becomes an analytic-reflective description and is presented in the structure of the writing in the “discussion” section below.

DISCUSSION

Humans and Consumption

The world produced around 300 million tonnes of plastic in 2019, almost the weight of the human population. Scientists predict that by 2050, there will be more plastic in the oceans than fish. In one year, the generated electronic waste can reach 50 million tons. And we throw away a third of all the food that is produced, while a lot of people go hungry. Overall, economic cycles generate more than 100 billion tonnes of resources and more than 60 percent of them end up as waste or greenhouse gas emissions.

Global consumption has indeed decreased significantly amid COVID-19. But the reality is not that simple. While clothing sales fell, purchases of home office equipment and sports equipment increased. Spending on the hospital industry fell, but spending on groceries increased. The use of single-use plastics has increased considerably, while the economic incentive to recycle plastic has diminished due to falling oil prices.

The 2008 recession suggests that the decline in consumption will not last long without concerted efforts towards long-term change. The problem is not just that consumers are buying too much while recycling efforts are limited. Today's global economy uses a “take-make-waste” model where natural resources are taken, used and ended up as waste. This inefficient model is very dangerous for our planet, exacerbating the climate crisis and consuming the resources we need to build a more just and prosperous society in the future.

Based on the study results, the circular economy has a positive impact on the Indonesian economy. This can be achieved from a combination of increasing income with the application of a circular economy, as well as lowering production costs through optimization of natural resources (SDA). A circular economy can increase our GDP in the range of IDR 539 trillion to 638 trillion by 2030.

Indonesia has adopted the circular economy concept into Indonesia's Vision 2045, and has integrated it into the National Medium Term Development Plan (RPJMN) 2020-2024. This approach is expected to achieve the national economic growth target and promote environmental

sustainability. In the 2020-2024 RPJMN, the circular economy is part of two national priorities, one of which is strengthening economic resilience for quality growth. In addition, it is part of the sixth national priority, namely building the environment, increasing disaster resilience and climate change.

In a circular economy, economic activities are carried out by building and improving the system as a whole. This concept will tend to recognize the importance of economics at all scales of business, be it large, small, organizational, individual, global or fully local businesses. Any changes to this circular economy must not only make adjustments by reducing the negative impact on the linear economy. On the other hand, a circular economy actually makes changes in a systemic manner by building resilience over the long term, generating business and economics, and providing positive benefits, both environmental and social.

In general, the circular economy has only just entered the discourse. Although this theory and book of linear economic systems has been published by economists for a long time. However, his recognition in the international world was only recognized after the United Nations issued a book entitled *The Future We Want* in 2012. After that, the UN agency, UNEP, issued a document entitled *The Financial System We Need* in the next three years. In this document, there is an acknowledgment that the current financial system is the opposite of the circular economy, and that it will take a long time to change.

Circular Economy Business Opportunities

On the other hand, currently the process of linear economic change towards a circular economy is happening rapidly in various European countries. Japan and China clearly have great opportunities in their financial industry. Let's take an example from the side of stock management, various activities that fall into the category of collecting, sharing, maintaining, redistributing, remanufacturing, and recycling must be done by utilizing various technologies and new business models. It is no longer necessary to defend linear technologies and old business models if a country is to truly achieve a circular economy.

Because various countries in the world currently have only reached 9.1% in achieving a circular economy, as quoted in *The Circularity Gap Report: Closing the Circularity Gap in a 9% World* (Circle Economy, 2019), then new business opportunities to transform 90.9% of economies in all corners of the world are still very wide open.

In Indonesia, the proportion of a circular economy is still far below 9%, so business opportunities are still wide open. Based on the latest report published by The Recycling Partnership, *The Bridge to Circularity: Putting the New Plastics Economy into Practice* in the US, the handling of plastic waste carried out in the United States alone has attracted \$ 55 million, and this opens up financing opportunities of around \$ 500 million. in the near future. Indonesia is

known as the second largest plastic waste producer in the world. The business opportunity in terms of handling plastic waste is certainly an extraordinary thing.

The Circular Design Model will focus more on product development as well as existing processes or are just starting an effort to maximize circulation. The risks associated with financing innovation do not have a significant difference in the financing of innovation projects or research, development, or other innovations. On the other hand, the optimal utilization model has a direct objective in terms of increasing the value and use of a product over its lifetime. This business model will usually retain ownership in the producer. In this case, they are usually selling a service, not a product.

This model has a financial implication stemming from the nature of cash flows which tends to change with the improvement of the work model for prepaid clients, extension of balance sheets, and re-evaluation of residual values. Such risks do seem difficult to assess, and tend to make financing difficult.

Conceptual Approach

The map of the potential to treat existing resources with a circular economic approach is enormous, because after all human consumption is growing along with population growth. An indicator of the strength of consumption is not too wrong if it is shown by the abundance of post-utility goods or waste in various forms. Conceptually, not only by treating waste to generate value in a circular economy, but government policies that provide stimulus and build jobs are efforts to create a circular economy.



Waste reduction



Stimulation of Business Growth



Job Creation

Source: World Resources Institute

The projected conceptual shift towards a circular economy is a reduction in excess consumption, a change in the mode of consumption and a change in the system towards high efficiency. The concept is an effort that can be made in certain time intervals as a transition from a linear to circular economy.

The focus of the circular economy is better use of natural resources and too high levels of consumption. In the 20th century, the increase in the use of raw materials in the world reached two times the population growth. Currently, the consumption of people in the richest countries in the world is up to 10 times that of the poorest people. On the one hand, many people need to reduce consumption. On the other hand, there are still many that need to increase their consumption.

In companies, the issue of consumption is still rarely discussed, considering that as much product sales as possible is the main principle of most business models. Changing this mentality will require business innovation, policy support and consumer encouragement. In wealthy countries as well as among the world's middle class, behavior change campaigns and policy incentives have an important role to play in changing behavior in the right direction regarding things like fast fashion, plastics and food waste. Currently, many countries are focused on reducing the use of single-use plastic bags that are already banned or taxed in a variety of ways in 127 countries. One of the strongest policies enforced in Kenya. Since the Kenyan government issued this ban in 2017, 80 percent of the population has stopped using single-use plastic bags.

Not only reducing consumption, the circular economy also includes better ways of consumption. For consumers, this means choosing products that are manufactured in a sustainable or recyclable manner. In addition, we can also replace what we consume, such as switching to a plant-based diet, which has various benefits related to emissions and other natural resources compared to meat.

Consumer awareness of sustainability continues to increase globally. Currently, the majority of consumers expect brand owners to be wiser in carrying out their activities. Pressure from consumers plays a big role in encouraging businesses to change their ways and encouraging governments to issue supportive policies. As another form of a better way of consumption, we can instead avoid buying goods and switch to circular models such as sharing platforms. Just imagine. The average car spends 95 percent of its life sitting in the parking lot while the average electric drill is only used for 15 minutes throughout its lifetime. It is clear that the sharing platform has great potential to reduce the use of raw materials.

Streaming services are one embodiment of a better way of consumption without causing disruption. In the past decade, the production and consumption of physical CDs and DVDs has significantly decreased. This change in behavior does not interfere with our way of life at all. We're just changing the way we consume entertainment for better and more sustainable ways. The shift to better ways of consumption is a great opportunity for innovative companies to adapt to new business models.

Consumers cannot do much considering that our economic system uses a take-make-waste model. What we need now are systemic changes so that sustainability doesn't just depend on consumer choices. The circular economy is based on the principle that products should be

designed to last using reusable components or materials. This model is also more economically advantageous for large machines such as copiers, MRI scanners or agricultural equipment. Because these machines have large upfront costs and are made using expensive materials, many companies have succeeded in using a circular model where products can be returned for them to refurbish or reuse materials. Now, this model must be used on a large scale and extended to other consumer products.

Much remains to be done from a policy perspective to provide incentives for the creation of a circular system. Major changes should be made to create incentives or require the use of secondary or recycled materials, such as taxing products that use materials that have never been used at all. The UK has taken steps to introduce a tax on plastic packaging with a recycled material content of less than 30 percent.

There is also a need for major infrastructure investment for recycling to be expanded or even required. The Republic of Korea is one of the success stories. There, 95 percent of waste has been successfully recycled into compost, animal feed, biogas or solid fuel due to the implementation of a mandatory food waste recycling program and the prohibition of food waste in landfills. Similar policies are also proposed in the European Green Deal, including the Circular Economy Action Plan. The transition to a circular economy is not easy, but the result - a world that is prosperous for humans, nature and the economy - will be commensurate. All of us - governments, policy makers, civil society and communities - must work together to become better consumers.

CONCLUSION

In the end, it is time for a circular economy to be applied in this country in order to maintain an uncertain economic situation. For you businessmen, this will certainly be able to increase your profit. So, learn more about this circular economy. It is time for this circular economy to have a positive impact on stakeholders in this country, including the financial industry through the application of sustainable financial products in order to finance the production and purchase of circular economy products. In essence the circular economy is a perfectly appropriate paradigm to apply. If the linear economy is maintained, it will be able to cause greater losses for stakeholders in Indonesia.

In the short term it will look very profitable, but in the long term it will be detrimental. Emotionally, this condition is already known, namely that the concessions that will be received by various countries will have a different direction. The sooner all banks and investors in Indonesia learn about the circular economy, the sooner this success rate will be achieved. In addition, financial service institutions will also be able to obtain good economic profits due to this process.

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