The role of banks in the circular economy

Ozili, Peterson K and Opene, Francis

1 February 2022

The role of banks in the circular economy

Peterson K. Ozili

Central Bank of Nigeria, Abuja, Nigeria.

Francis Opene

Central Bank of Nigeria, Abuja, Nigeria

Abstract

The circular economy concept has received considerable attention both in the business sector and in academia. In this paper, we highlight the role of banks in the circular economy. We propose that banks need to: develop a common understanding of the circular economy; issue widely accepted and recognized guidelines on circular economy finance; adapt existing finance models to fit into a circular economy model; offer credit lines to circular businesses; create a green bank; train bank staff; promote a strong culture of waste reduction and material re-use; ensure that the board risk committee is competent in circular risk management and control. Overall, banks have an important role to play both as a leader in circular economy finance and as a lender to companies in the circular economy.

Keywords: banks, circular economy, environment, waste, resources, financial institutions, climate change, sustainable development

JEL code: O44, G21, G28.

February, 2022.

Accepted in: World Journal of Science, Technology and Sustainable Development

1. Introduction

In this paper, we present a discussion on the role of banks in the circular economy. Promoting a circular economy is important because it emphasizes efficiency in waste reduction and material re-use. The circular economy will form a key part of the wider agenda to mitigate climate change, promote a sustainable environment and to achieve sustainable economic development.

In developed countries, the circular economy is mostly a demand side issue. It arises because of the need for environmental sustainability, climate change mitigation, waste reduction, and the need for continual use of waste. Many initiatives for the circular economy in developed countries have come from non-government organization (NGOs), the Ellen MacArthur Foundation, and banks.

At the macro-level, there are supply side constraints affecting growth in the circular economy. They include: lack of mainstream funding for circular economic activities, existing policies that inhibit circular economy activities, lack of government support, poor recycling infrastructure and technology. Banks can help to mitigate some of these constraints by providing the funding that businesses need to transition from the linear economy model to the circular business model.

Banks in European countries such as ING Bank, Dutch banks, ABN, AMRO, ING and Rabobank, have begun to lead the finance community in the global campaign for a circular economy.[1] As lending institutions, banks have a great role to play in funding legitimate business activities in the circular economy. Banks will need to take a different approach to circular economy finance. Banks will have to assess value differently, treat risk differently, approach compliance differently, and channel funds differently in the circular economy. Banks have an important role to play in this effort, not only as a social obligation, but also as a pure business idea.

A full-scale circular economy cannot be achieved by banks alone. Active collaboration with all stakeholders is needed. Collaboration with stakeholders will lead to a more conducive business environment for everyone involved in the circular economy. Collaboration with government authorities is important to

[1] https://www.globalbankingandfinance.com/financing-the-circular-economy-is-a-new-opportunity-for-banks/

provide an enabling policy environment for circular businesses. Legislative measures may be introduced to facilitate the transition towards a circular economy.

The discussion in the paper makes two contributions to the literature. First, the discussion in this article contribute to the policy literature on the role of financial institutions in the circular economy (see Aranda-Usón et al, 2019; Toxopeus et al, 2018; Dewick et al, 2020). Secondly, this study contributes to the literature that suggest alternative approaches to financing the circular economy (see Goovaerts and Verbeek, 2018; Toxopeus et al, 2018).

The rest of the paper is structured in the following way. Section 2 presents the conceptual literature. Section 3 discuss the role of banks in the circular economy. Section 4 concludes.

2. Conceptual Literature

2.1. Circular economy definition

There are different perspectives on the definition of the circular economy (Prieto-Sandoval et al., 2018). Ghisellini et al. (2016) and EMF (2013) define the circular economy as a system that is designed to be restorative and regenerative by re-manufacturing waste for reuse. Kirchherr et al. (2017) state that the circular economy is based on a business model that emphasize reducing, reusing, recycling and recovering materials in production, distribution and consumption processes. Haas et al. (2015) state that the circular economy is a simple strategy which aims to reduce both material input and output wastes by closing economic and ecological loops of resource flows.

2.2. Objectives of the circular economy

There is a consensus that the objective of the circular economy (CE) is to reduce harm to the environment and to close the loop of the product lifecycle (EMF 2013; EU Commission, 2014; Prieto-Sandoval et al, 2018). Some argue that the circular economy will not only close the loop of the products lifecycle, but will also deliver valuable products to others from redesigned waste (Scheel, 2016). Murray et al (2017) state that the circular economy seeks to integrate economic activity and environmental wellbeing in a sustainable way. Stahel (2016) states that the circular economy aims to create a new relationship with goods and materials – a relationship that saves resources and energy and create local jobs.

2.3. Stakeholder engagement in the circular economy

Stakeholders in the circular economy are employees, suppliers, citizens, and the government (Donaldson et al., 1995). Other stakeholders include governments, intergovernmental organizations, and nongovernmental organizations in different contexts (Camilleri, 2020). Gupta et al (2019) suggest that a collaborative association among all supply chain members can positively affect circular economy implementation. Salvioni and Almici (2020) argue that the adoption of a stakeholder engagement strategy, based on the principles of involvement and dialogue, is crucial for the success of circular business models.

3. The Role of Banks in the Circular Economy

In this section, we discuss the role of banks in the circular economy.

#1. Banks should develop a common understanding of the circular economy

There is need for a common understanding of the circular economy. This will provide a framework or guidelines to help banks establish whether or not business propositions and initiatives are circular. Having a common understanding of a circular economy will help banks in identifying, selecting and financing projects based on new circular business models. This will also encourage other financial institutions to participate in financing the circular economy.

#2. Banks should issue widely accepted and recognized guidelines on circular economy finance

Currently, there is a lack of generally accepted guidance on circular finance. Banks can collaborate with other industry partners to develop a common set of guidelines on circular finance. This will ensure that banks and other financial institutions follow a uniform approach in financing the circular economy. This will guide the allocation of capital to circular businesses by banks and other members of the finance community.

#3. Adapt existing financial models or develop new finance models for a circular economy

The finance models of banks need to adapt to the changes introduced by circular economy finance. Banks should improve existing finance models, or develop new pricing models, that incorporate environmental and social costs and benefits. This is essential in assessing the business case for circular approaches. In a circular economy, for example, the way depreciation is accounted for will change. Rather than writing down the value of assets to zero, the continuing value of assets to second-hand markets must be recognised in balance sheets. Therefore, banks must adjust their financial models when accounting for the value of physical assets used as collaterals. Another example is a situation where the circular economy model introduces the 'pay-per-use' model which spreads the cash earned over a long period rather than outright sales with full cash payment.

#4. Provision of credit lines to circular businesses

Banks can offer medium and long-term direct loans for small and large scale circular economy projects. Also, large commercial banks and international banks, such as the World bank and the European Investment Bank, can offer financing through credit lines to local banks and other intermediaries, to enable them to extend credit to circular small and medium-sized enterprises (SMEs), startups and young entrepreneurs.

#5. Create Green Banks

The creation of green banks will help to increase the return on green investment. It will reduce investment risk and cost of private capital for green projects by leveraging on the economies of scale and specialised services and operations of green banks (Tian, 2018).

#6. Train risk and compliance staff

Banks should train risk managers and compliance staff to effectively assess risks and vulnerability in doing business with circular companies. Risk managers should be trained to understand the sources of circular risk, the effect and interlinkages between circular risk and other traditional risk elements. Compliance staff should be aware of all circular economy regulations, laws and policies, and ensure that the bank has robust monitoring systems to monitor compliance with circular regulations, laws and policies.

#7. Promoting a strong culture of waste reduction and material re-use across all levels of the bank

Banks should internalize their commitment towards a circular economy. The top management of banks should ensure that bank staff at all levels understand the value of waste. Bank staff should strive to reduce waste as a work culture. The culture of waste reduction and material re-use should be entrenched in the staff. This will ensure that waste is minimized not only in the workplace but even beyond the workplace.

#8. Ensuring that members of the bank's board risk committee (BRC) is competent in circular risk management and control.

The BRC of the bank should design appropriate policies and procedures relating to circular economy risk management governance, practices, and control for the bank as a whole. BRC should ensure there are processes and systems for identifying and reporting circular economy risks, including emerging risks. BRC should also specify management and employees' authority and independence to carry out circular economy risk management responsibilities. BRC should also ensure that risk managers integrate the risks associated with the circular economy into their risk management and control objectives.

4. Conclusion

This paper discussed the role of banks in the circular economy. Some identified roles include: developing a common understanding of the circular economy; issuing widely accepted and recognized guidelines on circular economy finance; adapting finance models to fit into a circular economy model; offering credit lines to circular businesses; creating a green bank; training bank staff; promoting a strong culture of waste reduction and material re-use; ensuring that the board risk committee (BRC) of banks is competent in circular risk management and control.

The implication is that banks have an important role to play both as a leader in the circular economy and as a lender to the circular economy. At the national level, the circular economy is an economic experiment even though it is fast becoming a policy priority in many countries. The circular economy will undoubtedly provide economic, social and environmental benefits at the local and global level. Technology will be a key enabler in the transition towards a circular economy, as it can drive efficiency in waste reduction and waste re-use activities.

A line of caution here is that the circular economy agenda should not be used as a strategy to prohibit banks from lending to every aspect of the linear economy. This is because some linear businesses generate biodegradable waste that do not hurt the environment. Therefore, it is possible for the circular economy and some aspects of the linear economy to co-exist sustainably in the broader economic system. We think any attempt to completely outlaw all aspects of the linear economy or to discourage banks from lending to all types of linear businesses, in favour of lending only to circular businesses, will be a mistake.

Reference

Aranda-Usón, A., Portillo-Tarragona, P., Marín-Vinuesa, L. M., & Scarpellini, S. (2019). Financial resources for the circular economy: A perspective from businesses. Sustainability, 11(3), 888.

Camilleri, M. A. (2020). European environment policy for the circular economy: Implications for business and industry stakeholders. Sustainable Development, 28(6), 1804-1812.

Dewick, P., Bengtsson, M., Cohen, M. J., Sarkis, J., & Schröder, P. (2020). Circular economy finance: Clear winner or risky proposition? Journal of Industrial Ecology, 24(6), 1192-1200.

Donaldson, T., & Preston, L. E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. Academy of Management Review, 20 (1), 65-91.

Ellen MacArthur Foundation (EMF) (2013). Towards the circular economy.

EU Commission (2014). Towards a Circular Economy: a Zero Waste Programme for Europe, Brussels.

Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. Journal of Cleaner production, 114, 11-32.

Goovaerts, L., & Verbeek, A. (2018). Sustainable Banking: Finance in the Circular Economy. In Investing in Resource Efficiency (pp. 191-209). Springer, Cham.

Gupta, S., Chen, H., Hazen, B. T., Kaur, S., & Gonzalez, E. D. S. (2019). Circular economy and big data analytics: A stakeholder perspective. Technological Forecasting and Social Change, 144, 466-474.

Haas, W., Krausmann, F., Wiedenhofer, D., & Heinz, M. (2015). How circular is the global economy? An assessment of material flows, waste production, and recycling in the European Union and the world in 2005. Journal of industrial ecology, 19(5), 765-777.

Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. Resources, conservation and recycling, 127, 221-232.

Murray, A., Skene, K., & Haynes, K. (2017). The circular economy: an interdisciplinary exploration of the concept and application in a global context. Journal of business ethics, 140(3), 369-380.

Prieto-Sandoval, V., Jaca, C., & Ormazabal, M. (2018). Towards a consensus on the circular economy. Journal of cleaner production, 179, 605-615.

Salvioni, D. M., & Almici, A. (2020). Circular Economy and Stakeholder Engagement Strategy. Symphonya. Emerging Issues in Management, (1), 26-44.

Scheel, C. (2016). Beyond sustainability. Transforming industrial zero-valued residues into increasing economic returns. Journal of cleaner production, 131, 376-386.

Stahel, W. R. (2016). The circular economy. Nature News, 531(7595), 435.

Tian, H. (2018). Establishing Green Finance System to Support the Circular Economy. In Anbumozhi, Venkatachalam and F. Kimura (eds.), Industry 4.0: Empowering ASEAN for the Circular Economy, Jakarta: ERIA, pp.203-234.

Toxopeus, H., Achterberg, E., & Polzin, F. (2018). Financing business model innovation: bank lending for firms shifting towards a circular economy. Sustainable Finance Lab working paper, Utrecht University, The Netherlands.