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Administrative Optimization and Financial Sustainability in the Circular Economy of Latin America

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Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the Financial Profitability and Circular Economy variables. The purpose of the bibliometric analysis proposed in this document was to know the main characteristics of the volume of publications registered in the Scopus database during the period 2017-2022, achieving the identification of 42 publications in total. The information provided by this platform was organized through graphs and figures, categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics have been described, the position of different authors on the proposed topic is referenced through a qualitative analysis. Among the main findings made through this research, it is found that Italy was the country with the highest number of registrations in Scopus with a total of 5 publications referring to the analysis of financial profitability models for sustainability and the Circular Economy. The Area of Knowledge that made the greatest contribution to the study variables was Environmental Sciences, with 22 published documents, and the Type of Publication that was most used during the period indicated above were Journal Articles, which represent 81% of the total scientific production.

Keywords: *Financial Profitability, Sustainable Development, Circular Economy, Latin America.*

1. Introduction

In the constant search to be able to develop and implement sustainable development is something that resonates a general interest on a global scale, while each country individually faces each challenge present in economic development, they also face the constant challenges of environmental degradation. Latin America, a region geographically located in South America, recognized worldwide for its extensive and diverse cultural variety, rich in ecological biodiversity and vast in natural resources and which has the economic potential, this region in particular is at a critical crossroads in order to implement a circular and more sustainable economy in the future. While the great nations recognize the importance of being able to conserve the unlimited resources we have and the importance of reducing climate change present in large international industries, the

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countries of Latin America increasingly recognize the need to be able to transform their economic growth models and be able to integrate economies into a more sustainable transition model.

One of the frameworks that stands out through which this transition is envisioned is the circular economy, as this financial profitability model has a dedicated focus on resource management and sustainable development. In the context of Latin America, the grafting of a circular economy is not simply a concept, but a revolutionary and transformative vision that has the potential to reshape traditional economic models and focus their ideas on a new model of financial profitability where it seeks to go beyond taking, manufacturing and discarding and to be able to generate a more regenerative and environmentally friendly system.

The framework of the circular economy aims to reduce waste and minimise the environmental impacts present in this era and, at the same time, maximise the marginality of resources and foster resilience in economies. By being able to integrate these concepts in large nations, and mainly in Latin America, it seeks to address a fundamental paradox, which seeks the coexistence of economic growth with the holistic approach to environmental protection that for a long decade has perplexed both economic researchers and business interests. Therefore, for the successful adoption of the circular economy in this Latin American region, it is essential to develop and implement financial profitability models that can be adapted to the unique circumstances present in this region. Introducing these state-of-the-art models serves as a source of environmental responsibility and economic viability, ensuring that the implementation of sustainability is not only reflected in the natural environment, but is also more financially productive and advantageous. Recognizing that the circular economy represents more than just an environmental ideal, governments and businesses in Latin America are eager to discover the economic opportunities inherent in the sustainable transition.

This introduction focuses on the financial profitability model for the sustainability of the circular economy in Latin America. It takes into account the innumerable advantages in being able to execute this model, as it explores the main drivers, challenges and perspectives that seek the sustainable development of this rich economic region, therefore, by being able to do so, it seeks to provide a comprehensive vision of a multifaceted perspective that goes hand in hand with the flourishing of the circular economy in Latin America. As countries in the region navigate the intricate path to circularity, these financial models serve as indispensable tools to strike a balance between ecological well-being and economic prosperity, ultimately putting Latin America on track for a more sustainable and resilient future. For this reason, this article seeks to describe the main characteristics of the compendium of publications indexed in the Scopus database related to the variables Financial Profitability and Circular Economy, as well. Such as the description of the position of certain authors affiliated with institutions, during the period between 2017 and 2022.

2. General Objective

To analyze, from a bibliometric and bibliographic perspective, the production of research papers on the Financial Profitability and Circular Economy variables, published in high-impact journals indexed in the Scopus database during the period 2017-2022.

3. Methodology

A quantitative analysis of the information provided by Scopus is carried out under a bibliometric approach on the scientific production related to the study of the Financial Profitability and Circular Economy variables from Latin American institutions. Likewise,

from a qualitative perspective, examples of some research works published in the area of study mentioned above are analyzed, from a bibliographic approach to describe the position of different authors regarding the proposed topic.

The search is carried out through the tool provided by Scopus and parameters referenced in Figure 1 are established.

3.1 Methodological design

Figure 1. Methodological design
Source: Authors' own creation

3.1.1 Phase 1: Data collection

Data collection was carried out through the Search tool on the Scopus website, through which a total of 42 publications were identified. To this end, search filters were established consisting of:

TITLE-ABS-KEY (financial AND profitability, AND circular AND economy) AND PUBYEAR > 2015 AND PUBYEAR < 2023

✓ Published documents whose study variables are related to the study of Financial Profitability and Circular Economy.

✓ Limited to Latin American countries.
✓ Without distinction of area of knowledge.
✓ No distinction of type of publication.

3.1.2 Phase 2: Construction of analytical material

The information identified in the previous phase is organized. The classification will be made by means of graphs, figures and tables based on data provided by Scopus.

✓ Co-occurrence of Words.
✓ Year of publication
✓ Country of origin of the publication.
✓ Area of knowledge.
✓ Publication Type

3.1.3 Phase 3: Drafting of conclusions and outcome document

After the analysis carried out in the previous phase, we proceed to the drafting of the conclusions and preparation of the final document.

4. Results

4.1 Co-occurrence of words

Figure 2 shows the co-occurrence of keywords within the publications identified in the Scopus database.

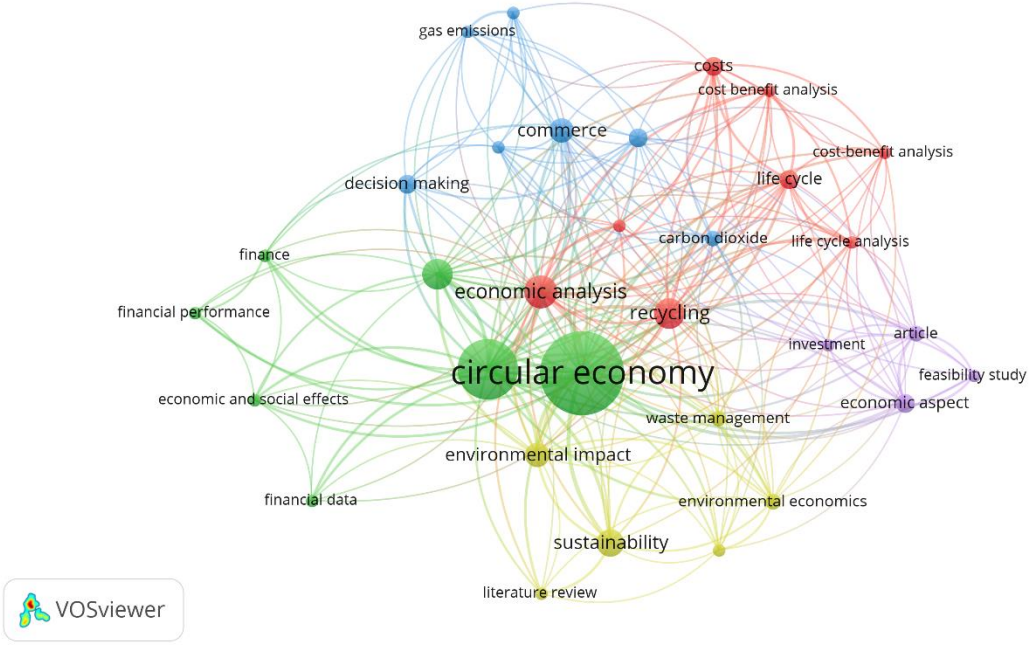

Figure 2. Co-occurrence of words

Source: Authors' own elaboration (2023); based on data provided by Scopus.

Circular Economy was the most frequently used keyword within the studies identified through the execution of Phase 1 of the Methodological Design proposed for the development of this article. Economic Analysis is among the most frequently used variables, associated with variables such as Machine Learning, Trade, Environmental Impact, Decision Making, Big Data, Sustainable Development, Economic Aspects, Economic and Social Effects. From the above, it is worth assessing the financial risks associated with the adoption of circular practices, such as fluctuations in the prices of recycled materials or the possible need for significant initial investments. Consider how circular economy practices can improve the company's reputation and attract consumers and business partners committed to sustainability. Ultimately, a sound financial model can help companies make informed decisions about circular economy adoption, highlighting economic opportunities and financial challenges. In addition, it can be a valuable tool for persuading investors and shareholders of the viability and long-term value of these strategies. The effective integration of financial models into the circular economy is essential to drive a meaningful shift towards a more sustainable and cost-effective system of resource management.

4.2 Distribution of scientific production by year of publication.

Figure 3 shows how scientific production is distributed according to the year of publication, taking into account that the period between 2017 and 2022 is taken.

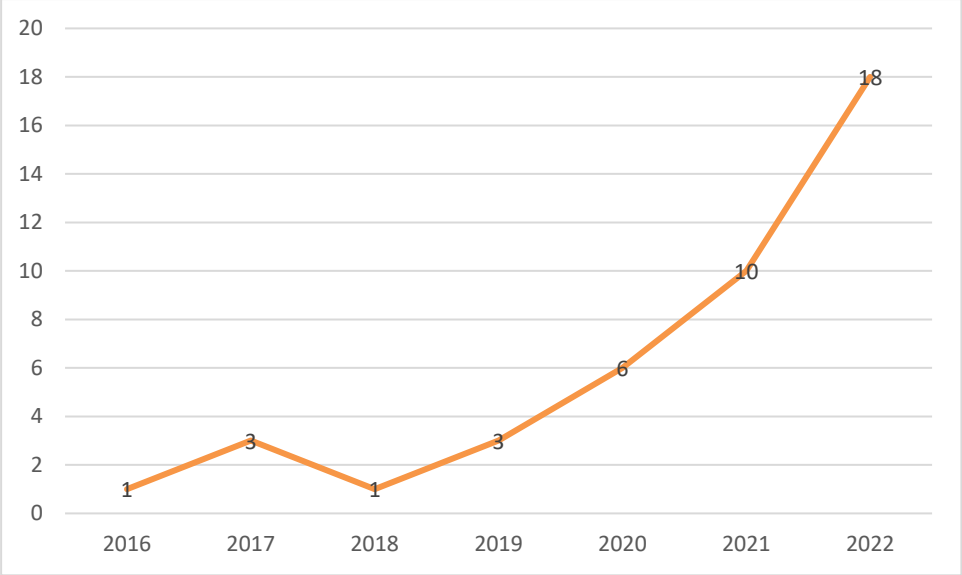

Figure 3. Distribution of scientific production by year of publication.

Source: Authors' own elaboration (2023); based on data provided by Scopus.

Among the main characteristics evidenced through the distribution of scientific production by year of publication, the number of publications registered in Scopus was in 2022, reaching a total of 18 documents published in journals indexed on this platform. This can be explained thanks to articles such as the one entitled "Analysis of the economic profitability of fashion waste recycling in southern Chile." The aim of this article is to examine the financial viability of textile waste recycling in Temuco and Puerto Montt, two cities in southern Chile. To determine the net present value and internal rate of return on investment in recycling scenarios in each city, a capital and cash flow budget will be created. When comparing the scenarios, the findings show that Temuco is a more cost-effective place to build a recycling facility than Puerto Montt. It is determined that there is a correlation between the city's population and income that is positive.(Soto, 2022)

4.3 Distribution of scientific production by country of origin.

Figure 4 shows how all the publications registered in Scopus are distributed according to the country of origin of the Latin American institutions.

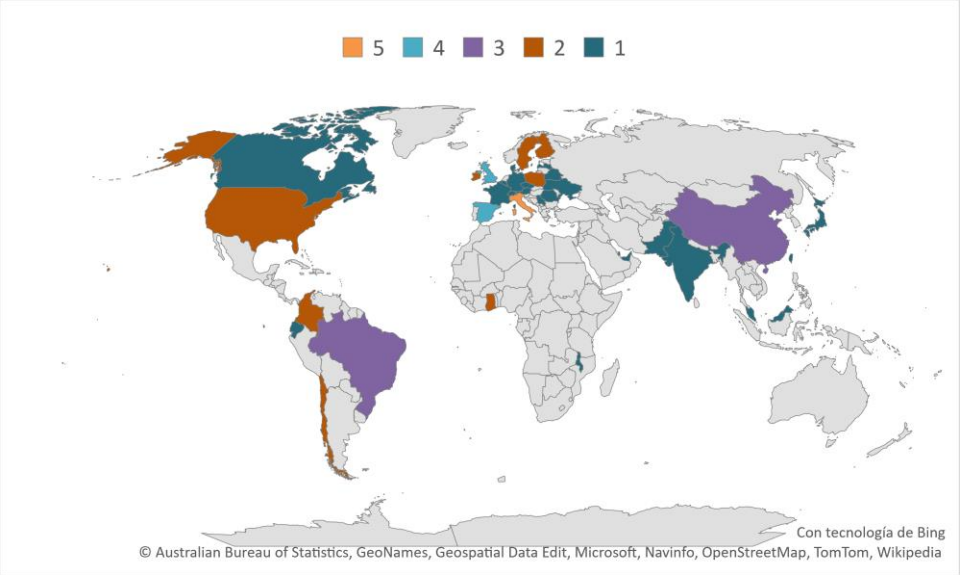

Figure 4. Distribution of scientific output by country of origin

Source: Authors' own elaboration (2023); based on data provided by Scopus

Within the distribution of scientific production by country of origin, the registrations from institutions were taken into account, establishing Italy as the country of this community, with the highest number of publications indexed in Scopus during the period 2017-2022, with a total of 5 publications in total. In second place, Spain with 4 scientific papers, and Brazil occupying third place presenting to the scientific community, with a total of 3 documents among which is the article entitled "Sustainable behavior of B Corps fashion companies during Covid-19: A quantitative economic analysis" This article investigates whether or not Italian B Corps® certified companies in the fashion industry achieved levels of corporate social responsibility (CSR) and comparable financial performance to publicly traded companies in the same industry during the Covid-19 pandemic. After a literature review on B Corps, CSR and the circular economy, as well as some coverage of the impacts of the pandemic, a quantitative approach is used to analyze the data empirically. According to the available data, the study incorporated the entire population of listed Italian companies and B Corps in the fashion sector. In addition, this study confirms the relationship between CSR and financial performance. The availability of sustainability documents other than the required social responsibility report does not directly affect a company's profitability, but they are necessary in the long term.(Ferioli, 2022)

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows how the production of scientific publications is distributed according to the area of knowledge through which the different research methodologies are executed.

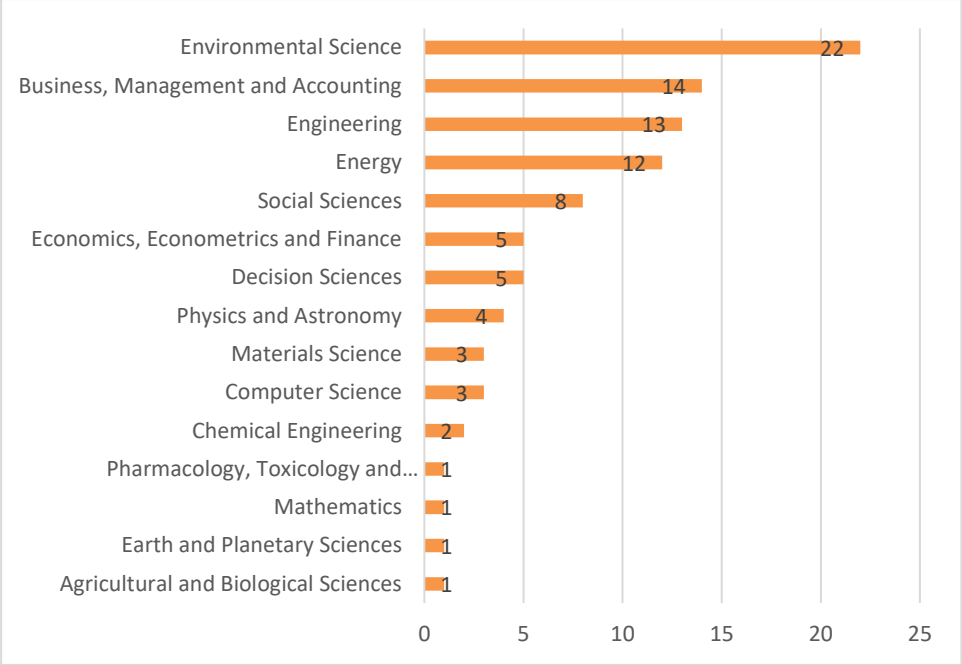

Figure 5. Distribution of scientific production by area of knowledge.

Source: Authors' own elaboration (2023); based on data provided by Scopus.

Environmental Sciences was the area of knowledge with the highest number of publications registered in Scopus, with a total of 22 documents that have based its methodologies Financial Profitability and Circular Economy. In second place, Business, Management and Accounting with 14 articles and Engineering in third place with 13. The above can be explained thanks to the contribution and study of different branches, the article with the greatest impact was registered by Environmental Sciences entitled "Drivers and barriers for the adoption of a circular economy: a sectoral perspective on rare earth magnets" This article aims to provide a sectoral perspective on the drivers and barriers for the adoption of circular economy principles in the NdFeB industry in Brazil. Based on the current literature and CE manuals, a set of barriers and theoretical factors is introduced, comprising three areas of drivers: regulatory, normative, and cultural-cognitive, and five areas of barriers: financial, market, organizational, operational, and technological, and structural. The sector's perspective was analyzed through a survey, in which Brazilian REM decision-makers gave their opinion on the importance of the drivers and theoretical barriers presented. An evaluation of the correlation coefficients was carried out to understand how a variable behaves in a scenario where another variable is changed. The main findings indicate that "improving competitive advantage" is the most relevant factor and "long-term financial profitability" is the main barrier. Finally, the systematization of EC drivers and barriers conducted in this research can foster circularity practices in the REM industry and help understand pathways to conserve resources through EC adoption.(Raspini, 2022)

4.5 Type of publication

Figure 6 shows how the bibliography is distributed according to the type of publication chosen by the authors.

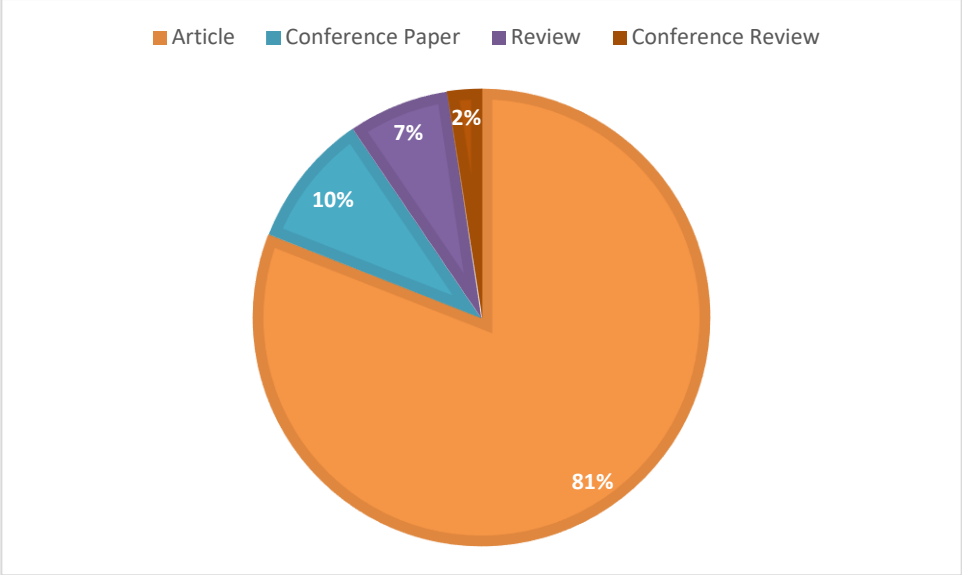

Figure 6. Publication Type

Source: Authors' own elaboration (2023); based on data provided by Scopus.

The type of publication most frequently used by the researchers referenced in the body of this document was the one entitled Journal Articles with 81% of the total production identified for analysis, followed by Session Paper with 10%. Journals are part of this classification, representing 7% of the research papers published during the period 2017-2022, in journals indexed in Scopus. In the latter category, the one entitled "The effects of the implementation of circular economy initiatives on business performance: the moderating role of organizational culture" stands out. The study aims to examine the micro-level implications of the implementation of a circular economy (CE) business model on the financial performance of companies and the effect of organizational culture in this context. Design/methodology/approach: Use a survey method to obtain 617 usable questionnaires from various business sectors in Ghana, a largely unexplored region, and draw on institutional and legitimacy theories. Findings: The study shows that the implementation of LE policies, such as the reduction, reuse, recycling, recovery, and restoration of resources used in manufacturing, distribution, and consumption processes, contributes to improved financial efficiency. In addition, the organizational culture is moderated by strengthening the positive relationship between EC and corporate financial performance. Originality/value: This study contributes to the literature on circularity and to the broader discourse on ecological issues by arguing that institutional and legitimacy theories, both of political economy theory, suggest that firms' economic activities will be influenced by political, social, and institutional context factors. Therefore, the firm's decision to adopt a different business model, such as CE, must be viewed from the political environment involving rules and regulations, social dynamics both inside and outside the organization, and the institutional structures within which the firm operates. These mechanisms establish a business case for the implementation of CE initiatives and are guided by specific intentions and objectives. This motivates and encourages employees to become more involved in their duties and interactions, leading to high levels of employee satisfaction, which improves productivity and profitability.(Kwarteng, 2022)

5. Conclusions

Through the bibliometric analysis carried out in this research work, it was possible to establish that Italy was the country with the highest number of records published in the Financial Profitability and Circular Economy variables. With a total of 5 publications in

the Scopus database. In the same way, it was possible to establish that the application of theories framed in the area of Environmental Sciences, were used more frequently in the implementation in order to introduce a model of financial profitability for sustainability in the circular economy. Latin America represents a compelling and innovative landscape to address the ongoing economic and environmental challenges facing this region. While we know, the circular economy offers a promising path to achieve both economic growth and environmental management, with the purpose of being able to ensure and properly take advantage of the principles of sustainability to be able to offer this region a path of a circular economy over time. By rethinking traditional linear models of production and consumption and moving towards circularity, companies in the region can reduce resource waste, minimize environmental impact, and unlock new avenues to save costs and generate revenue. This introduction of financial profitability models is not without challenges, this includes greater efficiency of the resources we have at our disposal, being able to minimize the generation of waste and the potential for new sources of income by ensuring recycling, the development of products and services that are much more sustainable and ensuring a friendlier environment. By taking a sustainability-focused approach, companies can improve their brand reputation, reduce regulatory risks, and take advantage of the growing global demand for eco-friendly products and services.

To conclude, it is important to recognize that implementing a circular economy in Latin America requires the union of governments, companies and society, substantially improving technology and infrastructure and improving the economic performance of education. The financial model that seeks to introduce a circular economy is not without challenges as it generates many more benefits over time that reduces the initial costs of implementing these growth models. By being able to counteract the principles of economic circularity, this Latin American region not only seeks to improve its resilience in environmental well-being, but also seeks the focus of being able to promote economic growth, job creation and global competitiveness. With the right strategies and commitment, Latin America has the potential to become a leader in the global transition to a more sustainable and circular economic model.

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