ANALYSIS OF ECONOMIC FACTORS, COMPETITIVENESS AND SUSTAINABILITY IN THE CONTEXT OF THE PRODUCTIVE SECTORS OF ECUADOR, PERU AND COLOMBIA

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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 variable Economic Factors, Competitiveness and Sustainability in the context of the productive sectors of Ecuador, Peru and Colombia. The purpose of the bibliometric analysis proposed in this document is to know the main characteristics of the volume of publications registered in the Scopus database during the period 2016-2021 in Latin American countries, achieving the identification of 369 publications. The information provided by the said 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 were described, the position of different authors regarding the proposed topic was referenced through qualitative analysis. Among the main findings of this research, it is found that Mexico, with 76 publications, is the Latin American country with the highest production. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of Management Accounting for Decision Making was Business with 172 published documents, and the Type of Publication that was most used during the above-mentioned period was the Journal Article, which represents 77% of the total scientific production.

Keywords: economic factors, competitiveness, sustainability

1. INTRODUCTION

Economic factors are those resources and trends that countries use to generate income that allows them to achieve their financial developing objectives, which depend on the natural resources that countries have and their political organization. In recent years, sustainability has played an important role in economic development, with the main objective of creating a balance between social transformation and environmental care and conservation of natural resources, avoiding the waste of these resources so that future generations do not have their resources compromised. This economic trend determines the economic growth and social welfare of countries because in this historical moment: As a society, people are more aware of the damage caused by the evolution of the environment. This is why it is increasingly common to
hear about social responsibility, which is a way to give back to the environment and society through actions the damage caused by the exercise of a specific economic activity.

Sustainability is currently an important factor in the levels of competitiveness in countries and companies as this is the ability of economies to be productive over a long time from self-sustainability, so sustainability is presented as an added value to the products and services generated in the country giving a plus in the market that according to commercial trends, people opt for products that have a sustainable component in their manufacturing process.

In these times of change, countries such as Ecuador, Peru and Colombia have implemented sustainability in their economic development through the rational use of their resources, thus helping to improve competitiveness by using fewer resources in the production of a good, which translates into income that can be used to alleviate poverty, education, generate jobs and boost the economy. Castro-Gonzáles et al. (2015) determined that among Ecuador, Colombia and Peru, Colombia was the most competitive country due to its great biodiversity and its environmental protection plans that lead to balanced economic development, followed by Peru and finally Ecuador as the country with the lowest competitive level in the global economy.

Thanks to the above, it can be said that sustainability currently represents an important economic factor that determines the balance between the financial development of countries and the conservation and good use of natural resources, helping to present higher levels of competitiveness by adding value to products at a lower cost and greater profitability from the conscious use of resources. Therefore, it is important to know, in terms of bibliographic resources, the current state of research on Economic Factors, Competitiveness and Sustainability in the context of the productive sectors of Ecuador, Peru and Colombia. Thus, a bibliometric analysis of the scientific production registered in the Scopus database during the period 2016-2021 is proposed to answer the question: How has been the production and publication of research papers related to the study of the variable Economic Factors, Competitiveness and Sustainability in the context of the productive sectors of Ecuador, Peru and Colombia during the period 2016-2021?

2. GENERAL OBJECTIVE

To analyze from a bibliometric and bibliographic perspective, the production of high-impact research papers on the variable Economic Factors, Competitiveness and Sustainability in the context of the productive sectors of Ecuador, Peru and Colombia during the period 2016-2021.

3. METHODOLOGY

Quantitative analysis of the information provided by Scopus under a bibliometric approach on the scientific production regarding Economic Factors, Competitiveness and Sustainability in the context of the productive sectors is carried out. Likewise, it is analyzed from a qualitative perspective, examples of some research papers published in the area of the study mentioned above, from a bibliographic approach to describe the position of different authors on the proposed topic.

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

3.1 METHODOLOGICAL DESIGN

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using the Scopus web page search tool, through which a total of 369 publications were identified. study variables are related to Economic Factors, Competitiveness and Sustainability in the context of the productive sectors. Research papers published during the period 2016-2021. Limited to research papers submitted by Peru, Ecuador and Colombia. Without distinction of area of knowledge. Without distinction of type of publication.

| PHASE 2 | CONSTRUCTION OF ANALYSIS 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. Word Co-occurrence. Year of publication Country of origin of the publication Area of knowledge. Type of publication |
| PHASE 3 | DRAFTING OF CONCLUSIONS AND FINAL DOCUMENT | After the analysis carried out in the previous phase, the study proceeds to the drafting of the conclusions and the preparation of the final document. |

Table 1. Methodological design. Source: Own elaboration (2022)

4. RESULTS
4.1 CO-OCCURRENCE OF WORDS
Figure 1 shows the co-occurrence of keywords within the publications identified in the Scopus database.
As shown in Figure 1, the most used keyword is sustainability, which is all the actions in economic matters where the correct management of natural resources is sought in order not to compromise those that belong to future generations, seeking to mitigate the damage caused to the environment in social development taking into account the sustainable development objectives given by the UN, which seek to mitigate poverty, promote investment in education and among others that are also in line with the purposes of the State, which are summarized in the common good. There are keywords such as sustainable development, innovation, competitiveness and industry 4.0, which refer to the tools that are currently being used in the innovation of economic activity, with ICT being increasingly used to digitalize as many processes as possible, avoiding spending resources on assemblies, packaging and paper as a sustainable way of carrying out economic activities, this being an innovative alternative that allows increasing the competitiveness of companies by carrying out social responsibility activities. Finally, developing countries, trade and planning economies are keywords that refer to how the economy of countries such as Ecuador, Peru and Colombia behave and the actions they implement to be self-sustainable allowing them to have a strong economy by boosting domestic and foreign trade.

4.2 DISTRIBUTION OF SCIENTIFIC PRODUCTION BY YEAR OF PUBLICATION.
Figure 2 shows how the scientific production is distributed according to the year of publication, taking into account the period from 2016 to 2021.
2021 is the country with the highest number of publications related to the variables under study with 141 documents, among which is the title “Social cohesion as the missing link between natural resource management and peacebuilding: Lessons from cocoa production in Ivory Coast and Colombia” (Löhr et al., 2021). This paper aims to analyze the relationship between social cohesion, natural resource management and peacebuilding so a literature review is conducted and cocoa production is analyzed in two post-conflict countries, Colombia and Côte d'Ivoire, where it is shown that the use of sustainable production strategies encourages social cohesion, but a shift towards social objectives is needed to strengthen these approaches as part of overall peacebuilding strategies and the adoption of sustainable practices.

In second place is 2020 with 83 documents registered in Scopus. Within these documents, it is possible to identify the title “Sustainable development in the economic, environmental and social fields of Ecuadorian universities” (Pacheco et al., 2020). This document determines the importance of universities in increasing competitiveness and productivity in sustainable development, so a bibliographic and analytical study is conducted taking into account the global initiative reports. This study shows that there is a deficient level of accountability in universities and it is important to analyze the social responsibility practices they employ, so action plans are proposed for policymakers to create standards for socially responsible annual reports that respond to the “triple bottom line” approach, also seeking to promote scientific dissemination regardless of the category in which the university is located, being important the adoption of sustainable practices to raise competitiveness levels.

4.3 DISTRIBUTION OF SCIENTIFIC PRODUCTION BY COUNTRY OF ORIGIN.

Figure 3 shows the distribution of scientific production according to the nationality of the authors.
Figure 3. Distribution of scientific production by country of origin.
Source: Own elaboration (2022); based on data provided by Scopus.

Within the three countries analyzed, Colombia is the one that stands out in scientific production referring to the variables under study during the period 2016-2021 presenting 233 publications, among which is “Organizational capacities for sustainability and resilience to improve business continuity management: A literature review” (Corrales-Estrada et al. 2021). This paper analyzes the relationship between organizational sustainability and organizational resilience for business continuity in conjunctural situations such as COVID 19, and through a bibliometric analysis in Scopus and WOS during the period 1998-2021, it was possible to verify the relationship between organizational resilience and sustainability, taking into account the dynamics adopted by companies for business continuity during economic crises, giving way to social responsibility as a way to contribute to social development.

At this point, it should be noted that the production of scientific publications, when classified by country of origin, presents a special characteristic and that is the collaboration between authors with different affiliations to public and private institutions, and these institutions may be from the same country or different nationalities so that the production of an article co-authored by different authors from different countries of origin allows each of the countries to add up as a unit in the general publications. This is best explained in Figure 4, which shows the flow of collaborative work from different countries.

Figure 4. Co-citations between countries.
Source: Own elaboration (2022); based on data provided by Scopus.
As mentioned above, Colombia is the country with the largest number of publications registered in Scopus related to economic factors, sustainability and competitiveness, presenting publications in collaboration with countries such as Spain, Brazil and Mexico, which shows the interest of other countries in knowing how sustainability is used in the country's economic growth actions and how this helps to increase competitiveness in international markets. In second place is Ecuador with 84 documents within which there are publications co-authored with countries such as the United Kingdom and Chile, within these documents is the one entitled “Grano De Cacao Con Denominación De Origen Protegida: Governance of The Chain and Sustainability Performance” (Moreno-Miranda et al., 2020). This article aims to analyze the socio-economic and governance components to understand the sustainability performance of the production chain (Theobroma cacao) and present potential strategies such as improving national regulation to help chain actors and the encouragement of young producers and the empowering of associations, all this taking into account that these supply chains are an important element in the Ecuadorian economy, so competitiveness is one of the most sought after factors to obtain greater profitability with lower use of resources, thus optimizing the entire supply and marketing chain and helping to meet the sustainable development objectives presented by the UN and promoting environmentally friendly practices in the production of products in Ecuador, thus protecting renewable and non-renewable natural resources.

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.

![Distribution of scientific production by area of knowledge](image)

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

Source: Own elaboration (2022); based on data provided by Scopus.

Business is the area of knowledge with the largest number of contributions through the theories that are framed in it, in the search for new knowledge on Economic Factors, sustainability and competitiveness, with 172 documents in total, among which is “Stakeholders in the framework of Corporate Social Responsibility: Systematic review” (Zárate-Rueda et al., 2021). This document has as its main objective to analyze the theoretical and conceptual trends in stakeholders and Corporate Social Responsibility between 2012 and 2016 to contextualize their origin, characteristics and perspectives. This analysis resulted in the need to find a balance between
economic growth and environmental conservation being corporate social responsibility the way to give back to the earth and nearby communities the damages caused in the exercise of its economic activity.

In second place is the social sciences, where 153 documents were written following the guidelines of the topics related to this area. Among these documents is the paper entitled “Broadening the perspective of zero deforestation interventions in Peru by incorporating concepts from the global value chain literature” (Castro-Nunez et al., 2021). This document aims to explore the spatial associations between deforestation and cocoa production, coffee and oil palm in the Amazon region of Peru to determine how to implement the 0-deforestation chain in Peru so it is determined that it may be possible by adopting a global value chain lens can improve the use of previously deforested land, prevent or future deforestation to make the economy more sustainable and environmentally friendly by avoiding the felling of trees.

4.5 TYPE OF PUBLICATION

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

As shown in Figure 6, within the different types of publications, 79% of the total number of documents identified through Phase 1 of the Methodological Design, correspond to Journal Articles, among which is the one entitled “Institutional quality of emerging economies and international competitiveness: A pls-sem approach” (Buitrago et al., 2021). This document analyzes the link between institutional quality (IC) and international competitiveness (IC) in emerging countries from 2007 to 2017 where it could be determined that political conditions and the lack of systemic conditions negatively affect the competitiveness of countries while when resources are used concerning science, technology and innovation a positive effect on competitiveness levels is shown. Therefore, it is concluded that by using sustainable development strategies, the dynamization of the economy is guaranteed, which is intended to achieve global recognition of the production of a product or service for the resources that the country has, as a way to generate employment and mitigate poverty that translates into social evolution and
fulfillment of the purposes of the State and the change of corporate policies that use a balance between profit and conservation of natural resources and ecosystems of a country.

In second place are the conference proceedings which represent 9% of the total number of documents registered in this study, within which is the title “Logistics 4.0 technologies in agricultural systems: potential impacts on the ods” (Morales & Elkader, 2020). This document aims to examine the potential impacts of logistics 4.0 in specific agricultural systems to contribute to the achievement of the Sustainable Development Goals, where the positive influence of this strategy on agricultural supply chains in emerging countries was determined, these being characteristic of low technological level mainly due to the high cost of their integration into the economies. It is therefore concluded that information and communication technologies and electronic advances are of great importance for the future sustainable agricultural economy in developing countries.

5. CONCLUSIONS

Thanks to the bibliometric analysis proposed in this research, it can be determined that Colombia is the country with the highest number of bibliographic records in the Scopus database during the period between 2016 and 2021 with a total of 233 documents. The scientific production related to the study of Economic Factors, Competitiveness and Sustainability in the context of the productive sectors, has presented an important growth during the above-mentioned period, going from 17 publications in 2016 to 141 units in 2021, i.e., it was possible to increase greatly the creation of bibliographic records in a period of 5 years, which indicates the importance of sustainability as an economic trend in increasing the levels of global competitiveness of emerging countries being this the key to the economy of the future as the use of technologies in the supply chains is becoming increasingly common.

Economic growth is undoubtedly one of the most important factors in the development of a country because thanks to this more resources are generated to meet the needs and solve social problems which are very common in emerging countries. In recent decades, sustainability appears as the necessary innovation in economies to make a country self-sustainable and environmentally friendly. Sustainability are all those actions performed by governments and companies for the conservation and protection of resources while social development projects are carried out preventing that the resources of future generations are compromised. Sustainability plays an important role in the competitiveness levels of countries since due to new commercial trends, people are more attracted to obtain products that in their elaboration process have been environmentally friendly or that carry out corporate social responsibility activities, besides it is the way to use a smaller number of resources for the elaboration of the same product, that is to say greater profitability.

All of the above, allows this article to conclude by highlighting the importance of knowing the theory or bibliographic resources that seek to awaken the interest in organizations, to manage sound and sustainable policies of Management Accounting, to recognize the step by step in the execution of plans and strategies aimed at achieving objectives and goals set by senior management. It is for this reason that the need for studies such as the one presented in this document is highlighted, which make a tour of those texts that address the aforementioned topic, to give the reader a broad view of the current situation of the literature on Decision Making influenced by data from Managerial Accounting.

In conclusion, this article highlights the importance of knowing the theory or bibliographic resources that seek to awaken interest in organizations and countries in managing economic policies that are in line with the objectives of sustainable development set by the UN to conserve ecosystems and resources in the supply and marketing chains. For this reason, the need for studies such as the one presented in this document is emphasized, which make an overview of
those texts that deal with this topic, to give the reader a broad vision of the current situation of the bibliography on Economic Factors, Competitiveness and Sustainability in the context of the productive sectors.

References


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