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ACCOUNTING AND ENVIRONMENTAL MANAGEMENT FOR SUSTAINABLE TOURISM

José Luis Rivera Velasco[1], Raúl De Jesús-Martinez[2], Franz Martin Tenorio Alanya[3], Jackeline Flores Apaza[4]

[1]Universidad Técnica Estatal de Quevedo- UTEQ, jrivera@uteq.edu.ec

[2]Private University of the North /Lima, Perú, rauldejesusm@gmail.com

[3]Investigador Independiente, franz2222@hotmail.com

[4]Universidad Andina Néstor Cáceres Velázquez, jackyfa@hotmail.com

Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the variables Environmental Accounting and Management for Sustainable Tourism. 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 103 publications. 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 towards the proposed theme is referenced through a qualitative analysis. Among the main findings made through this research, it is found that China, with 34 publications, was the country with the highest scientific production registered in the name of authors affiliated with institutions in that country. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of Environmental Accounting and Management for Sustainable Tourism was Sustainable Development with 45 published documents, and the Type of Publication most used during the period indicated above were Journal Articles with 77% of the total scientific production.

Keywords: Accounting, Environmental Management, Sustainable Tourism.

1. Introduction

Sustainable tourism emerged as a response to the growing awareness of the importance of preserving the environment and natural resources in the context of the tourism industry. In this sense, the application of environmental accounting and management has become a key tool to

promote sustainable practices and measure the environmental impacts of tourism activities. Sustainable tourism accounting and environmental management focus on the integration of environmental criteria into the planning, execution and control processes of tourism enterprises. This approach aims to assess and minimize the negative effects of tourism on nature while maximizing economic and social benefits for local communities.

The implementation of environmental accounting and management requires the introduction of tools and techniques to quantify and evaluate the environmental effects of tourism activities. This includes, for example, measuring energy and water consumption, waste production and greenhouse gas emissions. With this information, companies can identify areas for improvement and set targets to reduce their environmental footprint.

Environmental accounting and environmental management require, in addition to measuring and monitoring environmental effects, the implementation of management practices that promote energy efficiency, the responsible use of natural resources, the proper management of waste and the protection of biodiversity. This may include implementing clean technology, promoting employee participation in environmental education programs, partnering with sustainable local suppliers, and raising tourism awareness of the importance of responsible operations.

In short, it can be said that the application of environmental accounting and management in sustainable tourism is a key strategy to achieve a balance between economic development, environmental protection and the well-being of local communities. From this perspective, tourism companies can promote sustainable practices, minimize their environmental impact and contribute positively to the conservation of natural resources for future generations. 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 Environmental Accounting and Management for Sustainable Tourism as well. As the description of the position of certain authors affiliated with institutions, during the period between 2017 and 2022.

2. General objective

Analyze from a bibliometric and bibliographic perspective, the preparation and publication of research papers in high impact journals indexed in Scopus database on the variables Environmental Accounting and Management for Sustainable Tourism. during the period 2017-2022.

3. Methodology

This article is carried out through a mixed orientation research that combines the quantitative and qualitative method.

On the one hand, a quantitative analysis of the information selected in Scopus is carried out under a bibliometric approach of the scientific production corresponding to the study Environmental Accounting and Management for Sustainable Tourism. On the other hand, examples of some research works published in the area of study indicated above are analyzed from a qualitative perspective, starting from a bibliographic approach that allows describing the position of different authors against the proposed topic. It is important to note that the entire search was performed through Scopus, managing to establish the parameters referenced in Figure 1.

3.1 Methodological design

Figure 1. Methodological design

Source: Authors.

3.1.1 Phase 1: Data collection

Data collection was carried out from the Search tool on the Scopus website, where 103 publications were obtained from the choice of the following filters:

TITLE-ABS-KEY (accounting, AND sustainable AND tourism) AND (LIMIT-TO (PUBYEAR , 2017) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2022))

 Published documents whose study variables are related to the study of Accounting, Environmental Management, Sustainable Tourism.

 Limited to the years 2017-2022.

 Without distinction of country of origin.

 Without distinction of area of knowledge.

 Regardless of type of publication.

3.1.2 Phase 2: Construction of analysis material

The information collected in Scopus during the previous phase is organized and subsequently classified by graphs, figures and tables as follows:

- Co-occurrence of words.
- Year of publication.
- Country of origin of the publication.
- Area of knowledge.
- Type of publication.

3.1.3 Phase 3: Drafting of conclusions and outcome document

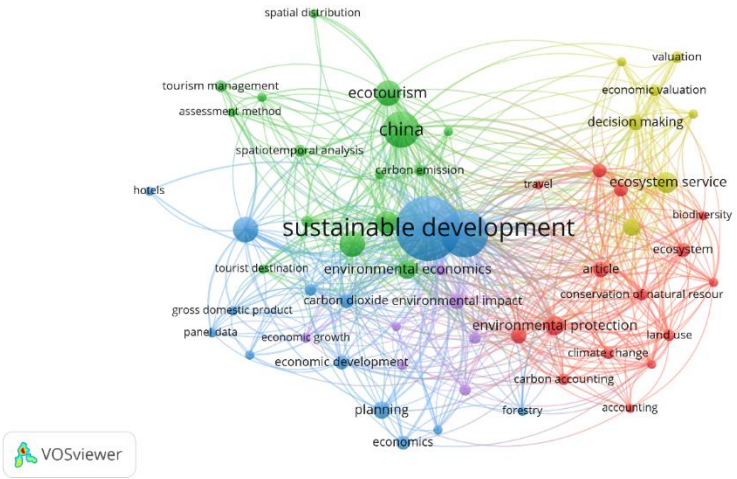
In this phase, we proceed with the analysis of the results previously yielded resulting in the determination of conclusions and, consequently, the obtaining of the final document.

4. Results

4.1 Co-occurrence of words

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

Figure 2. Co-occurrence of words



Source: Own elaboration (2023); based on data exported from Scopus.

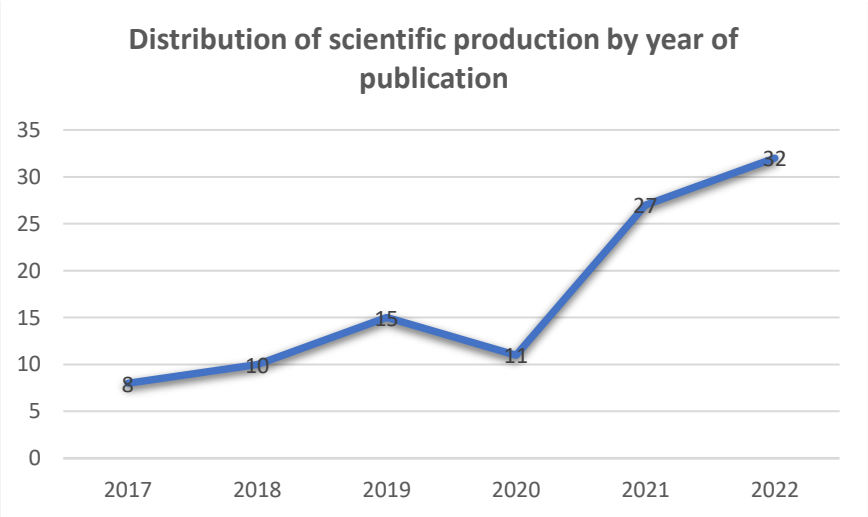
Sustainable Development was the most frequently used keyword within the studies identified through the execution of Phase 1 of the Methodological Design proposed for the development of this article. Economic Development is also among the most frequently used

variables, associated with variables such as Ecotourism, Ecosystems, Ecosystem Service, Environmental Protection. From the above, it is striking that tourism companies must carry out environmental impact assessments of their activities. This involves identifying and measuring possible negative effects on the natural environment, such as the emission of greenhouse gases, waste generation, water and energy consumption, among others. Environmental accounting involves recording and reporting financial and non-financial information related to the environmental performance of a tourism enterprise. This can include costs associated with the conservation and restoration of the environment, investments in clean technologies, saving resources, among others.

4.2 Distribution of scientific production by year of publication

Figure 3 shows how scientific production is distributed according to the year of publication.

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



Source: Own elaboration (2023); based on data exported from Scopus

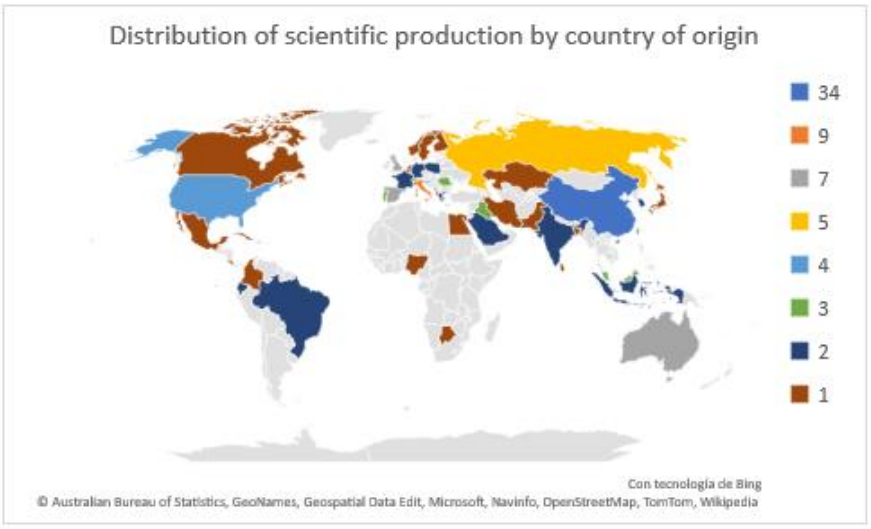
Among the main characteristics evidenced by the distribution of scientific production by year of publication, a level of number of publications registered in Scopus is notorious in the years 2022, reaching a total of 32 documents published in journals indexed in said platform. This can be explained by articles such as "A Study on the Relationship Between ESG Performance Information and Value Relevance: Focusing on the Travel and Tourism Industry in Korea" this study investigates the relevance of the value of ESG performance information in Korea's travel and tourism industry. ESG (environmental, social and governance) activities are critical factors in assessing corporate value. However, when it comes to the travel and tourism section, it is questionable whether ESG performance information is incorporated into financial corporate

value, as there are no distinct guidelines on ESG performance. Design/Methodology/Approach: This study hypothesizes that ESG performance information is not relevant to corporate value in the travel and tourism industry. Using KSE and KOSDAQ's listed companies in the travel and tourism industry for 2011-2020, this study performs a univariate test as well as a multiple regression analysis that estimates the relationship between share price and ESG ratings. Ohlson's (1995) model that estimates the relevance of the value of accounting information is used to test the hypothesis. Findings: Analysis shows that both ESG reports and ESG integration ratings are positively related to the stock price as an indicator of corporate value.(Kwon, 2022)

4.3 Distribution of scientific production by country of origin

Figure 4 shows how scientific production is distributed according to the nationality of the authors.

Figure 4. Distribution of scientific production by country of origin.



Source: Own elaboration (2023); based on data provided by Scopus.

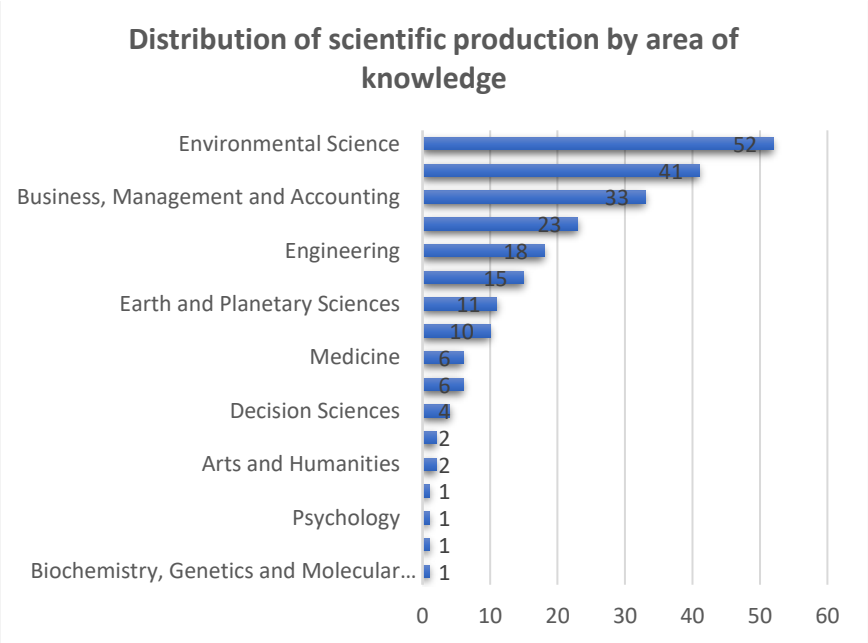
Within the distribution of scientific production by country of origin, records from institutions were taken into account, establishing China, as the country of that community, with the highest number of publications indexed in Scopus during the period 2017-2022, with a total of 34 publications in total. In second place, Italy with 9 scientific papers, and Australia ranking third presenting to the scientific community, with a total of 7 papers among which is the article entitled "Research on ecological load pressure in the Greater Dunhuang region based on the relationship between supply and consumption" this study evaluates the pressure of ecological consumption in the Greater Dunhuang region and analyzes the patterns and Trends in the state of ecological charge. The results reveal three important aspects of the ecological load in this Region. (1) After 2000, the organic supply in the Greater Dunhuang

region experienced a fluctuating growth trend. Across the ecosystem, the cropland ecosystem provides more than 55% of the ecological supply, and areas with relatively high supply capacity are concentrated in a small number of valleys. (2) The Greater Dunhuang Region is under higher production pressure, and there is less pressure of live consumption. Production consumption intensity has exceeded organic supply since 2014. The production and consumption structure of the Greater Dunhuang Region is dominated by animal husbandry production and consumption, which accounts for more than 65% of total production and consumption. (3) The Greater Dunhuang region has been in a rich and surplus state from 2000 to 2017. However, Dunhuang City became a surplus state in 2017 due to pressure from the fast-growing tourist population. The Greater Dunhuang Region urgently needs to relieve ecological pressure by developing green industries. (Wen, 2022)

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows the distribution of the elaboration of scientific publications from the area of knowledge through which the different research methodologies are implemented.

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



Source: Own elaboration (2023); based on data provided by Scopus.

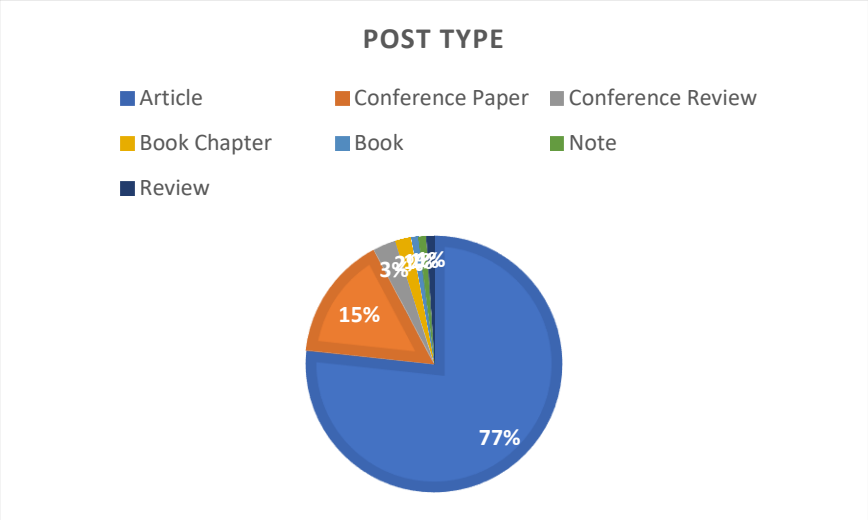
Environmental Science was the area of knowledge with the highest number of publications registered in Scopus with a total of 52 documents that have based their methodologies Environmental Accounting and Management for Sustainable Tourism In second place, Social Sciences with 41 articles and Business, Management and

Accounting in third place with 33. The above can be explained thanks to the contribution and study of different branches, the article with the greatest impact was registered by the Environmental Science area entitled "Ecotourism design and plant protection based on sensor network" This article analyzes the impact of tourism on the ecological environment, establishes a monitoring system of the ecological environment and a system of evaluation of ecological tourism resources, and studies the functional division of forest parks. Experimental research shows that, as a strictly protected area, the ecological conservation area basically does not carry out the development of scenic places or resource extraction, nor is it open to tourists. The total area is 852.92 ha, which represents 22.31% of the total area of the forest park, which allows the ecology of the ecological conservation area to achieve sustainable and healthy development.(Zhu, 2022)

4.5 Type of publication

In the following graph, you will observe the distribution of the bibliographic finding according to the type of publication made by each of the authors found in Scopus.

Figure 6. Type of publication.



Source: 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 Journal Article with 77% of the total production identified for analysis, followed by the Session Paper with 15%. Conference Journal are part of this classification, representing 3% of the research papers published during the period 2017-2022 in journals indexed in Scopus. In this last category, the one entitled "Perceptions of tourists on economic instruments as sustainable policies in protected areas: the case of Geiranger Fjord in Norway" stands out In this study, the Geiranger Fjord in Norway, a

protected area included in UNESCO World Heritage sites, was taken as a case study. Data from an on-site questionnaire to tourists in the area, following the contingent valuation method, were subsequently analysed using an ordinary least squares model, price elasticities and a mixed logit model. This research contributes to the existing literature on empirical evidence of factors influencing tourists' perceptions of the use of economic instruments, such as management policies, price sensitivities and substitution of destinations by surrounding areas, which explains the differences between socioeconomic characteristics, in particular age, gender and education; in addition to the characteristics of the trip, namely travel group, length of stay and activities within the destination; and destination motivations. Management implications: Successful sustainable tourism policies, as economic instruments, must consider the different perceptions of tourists regarding the implementation of these policies to achieve greater acceptance and commitment to conservation. (Díez-Gutiérrez, 2022)

5. Conclusions

Through the bibliometric analysis carried out in the present research work, it was established that China was the country with the largest number of records published for the variables Environmental Accounting and Management for Sustainable Tourism with a total of 34 publications in the Scopus database. Similarly, it was established that the application of theories framed in the area of Environmental Science, were the most frequently used in the measurement of the impact generated by the implementation of accounting and environmental management in sustainable tourism, which allows to guarantee the sustainability of the tourism industry and minimize its negative environmental effects. First, environmental accounting allows tourism businesses to monitor and evaluate natural resources used, emissions and waste generated. It provides accurate information on the environmental impacts of tourism and makes it possible to identify areas for improvement and set reduction targets.

In addition, environmental management requires the implementation of practices and policies that promote sustainability at all stages of the tourism value chain, from the planning and design of tourism destinations to the operation and management of tourism services. This includes adopting clean and efficient technology, promoting the conservation of natural resources and biodiversity, and raising awareness and educating tourists and local communities. Environmental accounting and environmental management in sustainable tourism benefit not only the environment, but also tourism businesses and tourism destinations financially and in terms of reputation. Adopting sustainable practices can lead to long-term savings, whether through energy efficiency, waste reduction or resource

optimization. In addition, more and more travelers are looking for responsible and environmentally sustainable travel experiences, so that companies that position themselves as leaders in sustainable tourism can gain a competitive advantage and improve their brand image. Finally, it can be stated that the application of environmental accounting and management in sustainable tourism is necessary to achieve a balance between economic growth, environmental protection and the well-being of local communities. By measuring, monitoring and continuously improving environmental impacts and adopting sustainable practices, we can ensure that tourism is a positive force for long-term sustainable development.

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