

Multidimensional Analysis of Local Development in the Regions of Ecuador: Evaluation of Factors, Indicators and Improvement Strategy

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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 variables Social Development, Improvement Strategies and Social Factors. 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 by Latin American institutions, achieving the identification of 64 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 on the proposed topic is referenced through a qualitative analysis. Among the main findings made through this research, it is found that Brazil, with 21 publications, was the Latin American country with the highest scientific production registered in the name of authors affiliated with institutions of that nation. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material related to the study of Social Development, Improvement Strategies and Social Factors, was Social Sciences with 33 published documents, and the most used Publication Type during the period indicated above were Journal Articles with 65% of the total scientific production.

Keywords: *Social Development, Improvement Strategies, Social Factors, Latin America, Ecuador.*

1. Introduction

In the ongoing quest of economies to develop a more sustainable and equitable environment, it is vitally important to understand and analyse the multiple dimensions that characterise the local progress of economies. Being able to analyze these dimensions only occurs in countries where their diverse cultural diversity, geography and economic structures, as reflected in the Ecuadorian economy. Ecuador, geographically located on the continent of South America, has a regional diversity, characterized by facing diverse challenges and unique opportunities towards the trajectory of economic development. This comprehensive analysis delves into the multidimensional aspects of local development in the various regions of Ecuador, employing a rigorous evaluation

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framework that encompasses a spectrum of factors, indicators, and strategies for improvement.

Based on this premise, the local development present in the Ecuadorian economy is a much more complex and dynamic process since it goes beyond the tight limits of economic growth. Although we know that economic factors represent a fundamental role for countries, since they represent a much more holistic understanding where the social, environmental, cultural, educational and institutional dimensions are taken into account. The uniqueness of each region within Ecuador requires a nuanced approach that considers the intricate interplay of these various elements.

Ecuador's regions exhibit a kaleidoscope of factors influencing their development trajectories. Economic drivers, demographic patterns, educational infrastructure, healthcare accessibility, and environmental sustainability are just a few of the myriad factors at play. A thorough assessment of these factors is imperative to decipher the underlying dynamics that drive or impede progress in each locality.

Measuring development indicators as a whole requires more robust processes that transcend conventional metrics, such as Gross Domestic Product (GDP). Measuring social indicators, which range from education, health, growth rate and poverty rate, provide information on well-being to the general population. Other indicators present in economies, such as the environment, measure the levels of ecological sustainability and the initiatives of governments to implement initiatives towards the path of development, while cultural indicators illuminate the preservation of indigenous identities. This multidimensional approach allows for a more nuanced and accurate representation of local development.

However, being able to identify areas for improvement is an essential step in guiding local development towards a more inclusive and sustainable path. This analysis goes beyond a mere diagnosis of challenges and offers a comprehensive set of strategies designed to address the unique needs of each region. Whether it is to be able to implement state policies where investment is focused on specific economic sectors such as educational reforms, health and environmental sustainability, the objective is to formulate personalized strategies that align with the context and specific aspirations of each community.

As we embark on this multidimensional analysis of local development in Ecuador's regions, the overall objective is to contribute to the formulation of a sound framework that facilitates sustainable progress. By understanding the intricate web of factors influencing development, identifying meaningful indicators, and proposing customized improvement strategies, this analysis seeks to empower policymakers, community leaders, and stakeholders to navigate the complex terrain of local development with precision and purpose. 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 Social Development, Improvement Strategies and Social Factors, as well. Such as the description of the position of certain authors affiliated with Latin American institutions, during the period between 2017 and 2022.

2. General Objective

To analyze, from a bibliometric and bibliographic perspective, the preparation and publication of research papers in high-impact journals indexed in the Scopus database on the variables Social Development, Improvement Strategies and Social Factors, during the period 2017-2022 by Latin American institutions.

3. Methodology

This article is carried out through a research with a mixed orientation 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 of Social Development, Improvement Strategies and Social Factors.

On the other hand, examples of some research works published in the area of study mentioned above are analyzed from a qualitative perspective, based on a bibliographic approach that allows describing the position of different authors on the proposed topic. It is important to note that the entire search was carried out through Scopus, managing to establish the parameters referenced in Figure 1.

3.1. Methodological design



Figure 1. Methodological design

Source: Authors' own creation

3.1.1 Phase 1: Data collection

Data collection was carried out from the Search tool on the Scopus website, where 64 publications were obtained by choosing the following filters:

TITLE-ABS-KEY (social and development, AND improvement AND strategies, AND social and factors) AND PUBYEAR > 2016 AND PUBYEAR < 2023 AND (LIMIT-TO (AFFILCOUNTRY , "Brazil") OR LIMIT-TO (AFFILCOUNTRY , "Colombia") OR LIMIT-TO (AFFILCOUNTRY , "Mexico") OR LIMIT-TO (AFFILCOUNTRY , "Ecuador") OR LIMIT-TO (AFFILCOUNTRY , "Peru") OR LIMIT-TO (AFFILCOUNTRY , "Chile") OR LIMIT-TO (AFFILCOUNTRY , "Uruguay") OR LIMIT-TO (AFFILCOUNTRY , "Panama") OR LIMIT-TO (AFFILCOUNTRY , "Argentina") OR LIMIT-TO (AFFILCOUNTRY , "Venezuela") OR LIMIT-TO (AFFILCOUNTRY , "Puerto Rico") OR LIMIT-TO (AFFILCOUNTRY , "Guatemala") OR LIMIT-TO (AFFILCOUNTRY , "Cuba") OR LIMIT-TO (AFFILCOUNTRY , "Bolivia"))

- Published documents whose study variables are related to the study of Social Development, Improvement Strategies, Social Factors.
- Limited to the years 2017-2022.
- 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 collected in Scopus during the previous phase is organized and then 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, the results of the previous results are analysed, 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.

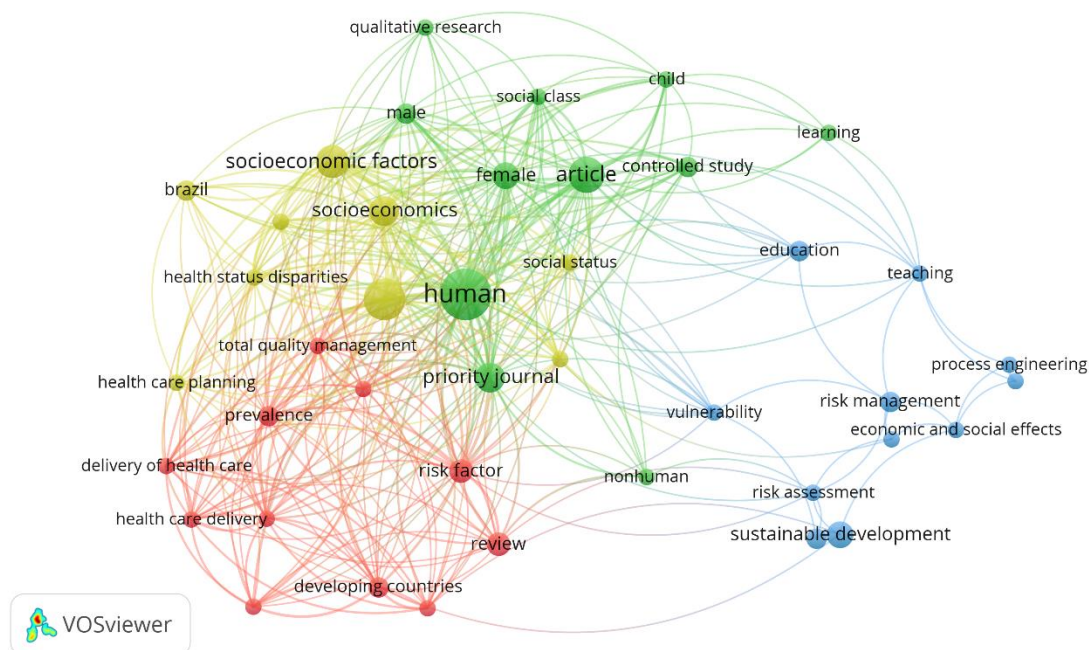


Figure 2. Co-occurrence of words

Source: Authors' own elaboration (2023); based on data exported from Scopus.

Socioeconomic factors 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. Social Economy is among the most frequently used variables, associated with variables such as Sustainable Development, Education, Economic and Social Effects, Risk Management, Vulnerability, Risk Factor. From the above, it is clear that there is a need for adaptable and flexible policies that take into account regional variations, as a one-size-fits-all approach may not be suitable for Ecuador's diverse contexts. the multidimensional analysis of local development in

Ecuador underscores the importance of a holistic and context-specific approach. By considering the interconnected nature of economic, social, environmental, and institutional factors, policymakers can design and implement specific strategies that foster sustainable and inclusive development. The journey to comprehensive and equitable development in Ecuador requires continued commitment, collaboration, and adaptability to navigate the unique challenges and opportunities presented by each region.

4.2 Distribution of scientific production by year of publication

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

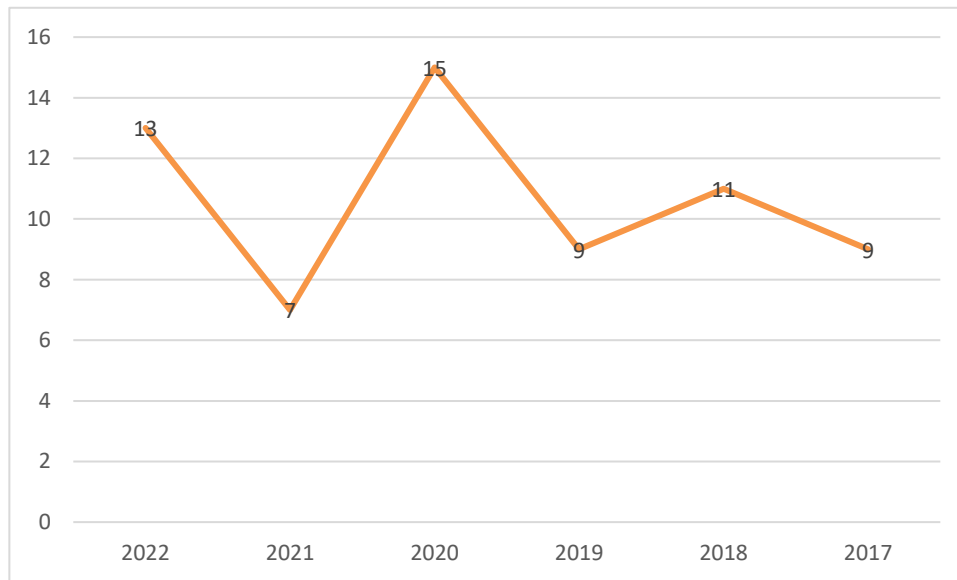


Figure 3. Distribution of scientific production by year of publication.

Source: Authors' own elaboration (2023); based on data exported from 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 2020, reaching a total of 15 documents published in journals indexed on this platform. This can be explained thanks to articles such as the one entitled "The trend of the average height of Guatemalan women born between 1945 and 1995: a century of delay" This study aims to identify trends in the average height of indigenous and non-indigenous adult women born between 1945 and 1995 in Guatemala and the association with individual factors. home and environmental. Methods: We used pooled data from adult women from five Demographic and Health Surveys. Mixed-effects multilevel linear regression models estimate the mean height associated with explanatory variables. Mean height was modeled based on birth year cohort, wealth, education, geo-administrative regions, and elevation. Results: Mean height increased by 0.021 cm per year on average. The annual increase for indigenous women was 0.027 cm, while for non-indigenous women it was 0.017 cm. Height is associated with household wealth and women's educational level. We found an interaction effect between ethnicity and household wealth, with indigenous women in the lowest quintile 0.867 cm shorter than the corresponding non-indigenous group. Height is associated with the geo-administrative region, with women in western regions being shorter than those in metropolises. The average height is reduced by 0.980 cm for every 1000 m increase in elevation. Conclusions: Guatemalan women have grown only 1 cm in half a century, a slow improvement between 1945 and 1995, a period characterized by political instability and civil war.(Arriaza, 2022)

4.3 Distribution of scientific output by country of origin

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

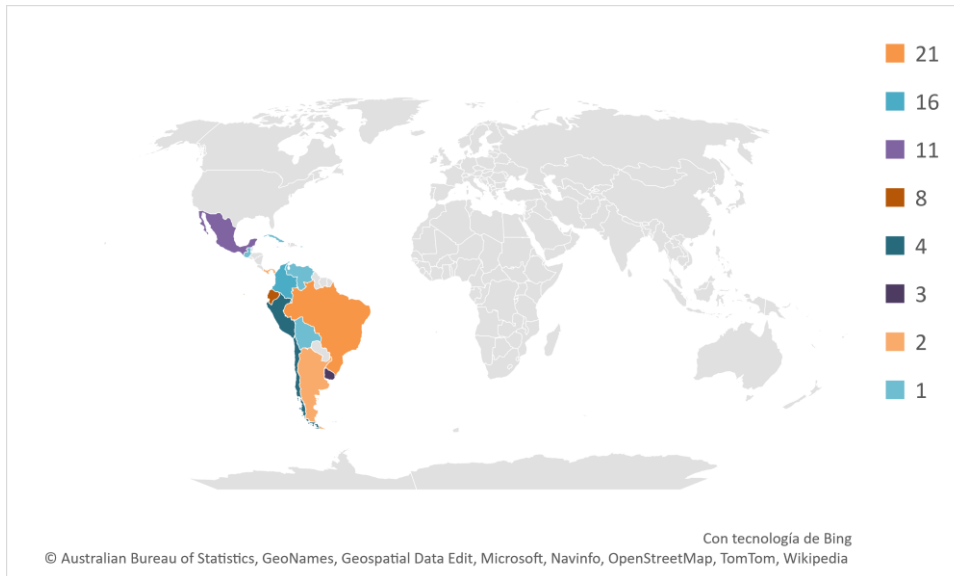


Figure 4. Distribution of scientific production by country of origin.

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

Within the distribution of scientific production by country of origin, records from Latin American institutions were taken into account, establishing Brazil as the country of that community with the highest number of publications indexed in Scopus during the period 2017-2022, with a total of 21 publications in total. In second place, Colombia with 16 scientific documents, and Mexico occupying the third place presenting to the scientific community, with a total of 11 documents, among which is the article entitled "Quality assurance of technological institutes in Mexico: competition and inequity." This study aims to analyze the external quality assurance (EQA) strategies of Technological Institutes (IT) in Mexico, between 2010 and 2020. To this end, this study traces sectoral reforms and institutional adaptation processes towards compliance with accreditation indicators. This study considers accreditation as an emerging strategy for governance and improvement of the quality of the subsystem, historically aimed at contributing to social equity and national development projects. This study also examines the links between evaluation, quality assurance and the restructuring of public and technological higher education. Design/methodology/approach: This study conducts an exploratory, state-of-the-art study. This study explores the relationship between quality assurance, non-traditional institutions, and regulation in Mexico. This study covers a topic that has been absent from technology sector research, particularly research on autonomy and leadership within its institutions. This study obtains qualitative information on these topics through interviews and two focus groups. Findings: Mechanisms such as regulatory schemes for internal IT reform and subsistence prominence within the education system in general show limitations due to the inadequacy of accreditation indicators to account for the conditions under which IT operates. (Didou Aupetit, 2022)

4.4 Distribution of scientific production by area of knowledge

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



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

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

Social Sciences was the area of knowledge with the highest number of publications registered in Scopus with a total of 17 documents that have based their methodologies on Social Development, Improvement Strategies and Social Factors. In second place, Business, Management and Accounting with 17 articles and Medicine in third place with 16. The above can be explained thanks to the contribution and study of different branches, the article with the greatest impact was registered by Social Sciences entitled "Incorporation of the product-service system of cutting tools in the machining process: an eco-efficiency approach towards sustainable development" the objective of this work was to evaluate the economic, environmental and social advantages of PSS cutting tools in machining. Consistent with this objective, the research focused on a case study in a diesel engine parts machining company. From an economic point of view, the results indicated a reduction in operating costs of US\$ 1,206,080 per year, which allowed a return on investment in nine months. From an ecological perspective, the recovery of 602 kg of carbide per year mitigated the environmental impact of tungsten and cobalt exploration. These results are all the more expressive because these are scarce metals. In addition, technological advances reduced the risk of injury to operators. This research expanded the knowledge about PSS in machining by presenting an original study that led the analysis from a sustainability perspective. In addition, this study contributes to managers by showing the advantages of the business model that reduce operating costs and socio-environmental impacts, promoting sustainable development. (Lanzilotti, 2022)

4.5 Type of publication

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

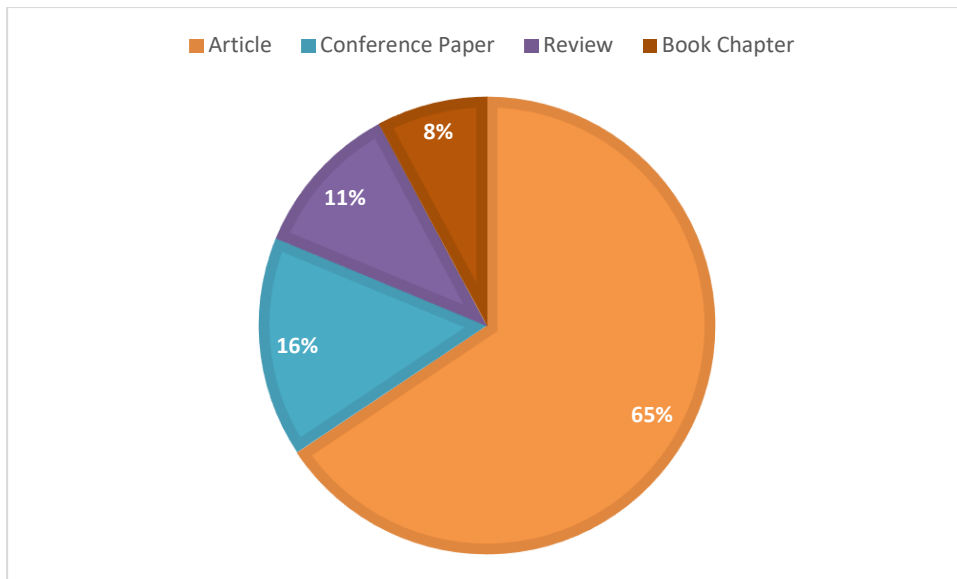


Figure 6. Type of publication.

Source: 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 65% of the total production identified for analysis, followed by Session Papers with 16%. Journals are part of this classification, representing 11% of the research papers published during the period 2017-2022, in journals indexed in Scopus. The aim of this article is to present a brief analysis of the historiography of the pioneering experiences of the Social Welfare State, as a political phenomenon of the twentieth century, and of the Finnish education system, a global case in the field of education. Our methodology is based on qualitative bibliographic research, using literature in the field of social policy, in particular the thesis on the emergence and development of the welfare state, taken from the typology proposed by Gøsta Esping-Andersen (1991, 1999), and documents made available by multilateral agencies and the Finnish government. First, we present an analysis of our theoretical basis and its relationship with the welfare state and the Finnish educational model. Then, the results achieved by that country from the moment of the strategy in which it placed education as development, choosing it as one of the main social policies for the reduction of the "improvement of poverty" in the development of children and young people, from the families. We affirm that the construction of the educational model in Finland is not the result of the final result or the results of politicians, but is related to the emergence and development of the Welfare State and is the result of a set of historical, cultural, social, political and economic factors that formed a new social pact.(Brandão, 2022)

5. Conclusions

Through the bibliometric analysis carried out in this research work, it was established that Brazil was the country with the highest number of published records for the variables Social Development, Improvement Strategies and Social Factors. With a total of 21 publications in the Scopus database. In the same way, it was established that the application of theories framed in the area of Social Sciences, which were used more frequently in the implementation of the multidimensional analysis of local development in the regions of Ecuador, reveals a complex interaction of factors that influence the socioeconomic panorama of this diverse country. By means of the evolution of indicators of economic, social, environmental and institutional aspects, which provide vital information on the difficulties presented in the regions and also provide opportunities

specific to each particular region. One of the characteristics offered by the economic dimension is to show certain indicators of income, the employability rate and the activities of the industrial sectors, and it also shows us the levels of inequality present in the regions of Ecuador. Ecuador's regional diversity represents a holistic approach in which all regions have sustainable economic development over a long period of time, coastal regions whose strength is their access to ports and trade routes, often represent a great contribution to the economic development of this particular region. This indicates that each region needs individual strategies which help address the unique economic circumstances of each region, with this an inclusive and resilient growth is sought, thus reducing the inequality factor present in Ecuadorian regions. Institutional dynamics, including governance structures, local administration and policy frameworks, significantly influence the success of development initiatives. In addition, it is necessary, individually and collectively, for the communities and regions as a whole to actively participate in decision-making, which would significantly improve the economic development of Ecuador's regional diversity. It is essential that those in charge of the country's economic development plans ensure more adaptable and flexible economic policies that can be adapted to the corresponding needs of each region.

To conclude, improvement strategies must be adapted to address the specific challenges identified in each region. Investing in infrastructure, both physical and social, is critical to unlocking the full potential of underdeveloped areas. This includes improving transportation networks, health care facilities, and educational institutions. In addition, promote sustainable agriculture, ecotourism and other environmentally friendly economic activities.

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