APPLICATION OF STRATEGIC ANALYSIS AND SIMULATION ENVIRONMENTS FOR THE DEVELOPMENT OF BUSINESS COMPETITIVENESS

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Summary
A documentary review was carried out on the production and publication of research papers related to the study of the variables strategic analysis, simulation environments and Business Competitiveness. 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 2018-2022, achieving the identification of 155 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 Rusia, with 28 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 Economic Analysis and Business Competitiveness was the Social Sciences with 6 4 published documents, and the Type of Publication most used during the period indicated above was the Journal Article with 11 4 documents of the total scientific production.
Keywords: Economic analysis, business competitiveness.

1. Introduction

Globalization has been a key piece for the development of many aspects that have allowed that over time countries previously considered emerging or underdeveloped, today are on track to meet global standards. This applies in various social, environmental and economic aspects, the latter being very important because they directly influence the achievement of the two previously mentioned.

Economics refers to "a very broad discipline, encompassing the different socio-economic systems by which governments rely to lead their nations, as well as the schemes that individual organizations and agents use in their economic core". That is, for the making of any decision a government or company must carry out a detailed Economic Analysis that allows it to determine the aspects that could positively or negatively impact the achievement of an objective of that (CEUPE Magazine, s.f.)nature. However, as we mentioned before, it is necessary to take into account social, environmental, technical variablesthat guarantee good decision-making.

It is no secret to anyone that the desire of every company or company is to be able to maintain itself over time and this is only possible to achieve through efficient decision-making that in turn depends on the good identification of the characteristics of the environment, with qualified personnel and satisfying the needs of its main users or buyers. In other words, competitiveness is sought based on what the market demands, which is why the term Competitiveness has gained relevance over time, since it is considered the best way to measure the efficiency and effectiveness of a company which suggests that the more competitive, the better a company will be considered . In the words of Ferraz, Kupfer and Haguenauer (as cited in Camargos Teixeira, Goncalves Godoi and Medeiros, 2019)

Competitiveness can be defined as the ability of a company to create and implement competitive strategies and maintain or increase its market share of products in a sustainable manner. These capacities are related to various factors, controlled or not by companies, ranging from the technical training of personnel and managerial-administrative processes to public policies, infrastructure supply and the peculiarities of demand and supply.(Camargos Teixeira, Gonçalves Godoi, & Medeiros, 2019)

Although we consider that the Economic Analysis has considerably influenced the development of Business Competitiveness, it is precisely with this research article that we seek to verify this assumption through the description of the main characteristics of the set of publications attached to the Scopus database and that are directly related to our variables, as well as the description of the position of certain authors affiliated with various institutions during the period between 2018 and 2022.

2. General objective

Analyze from a bibliometric and bibliographic perspective, the elaboration of works on the variables Economic Analysis and Business Competitiveness during the period 2018-2022.

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 ofEconomic Analysis and Business Competitiveness.

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 155 publications were obtained from the choice of the following filters:
TITLE-ABS-KEY (economic AND analysis AND development AND of AND business AND competitiveness) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018)) AND (LIMIT-TO (EXACTKEYWORD , "Competitiveness") OR LIMIT-TO (EXACTKEYWORD , "Economic Analysis"))
o Published documents whose study variables are related to the study ofEconomic Analysis and Business Competitiveness.
o Limited to the years 2018-2022.

o No limit of countries.
o Limited to the keywords "Economic Analysis, Competitiveness".
o Regardless of type of publication.

3.1.2 Phase 2: Construction of analysis material
o The information collected in Scopus during the previous phase is organized and subsequently classified by graphs, figures and tables as follows:
o Co-occurrence of words.
o Year of publication.
o Country of origin of the publication.
o Area of knowledge.
o 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
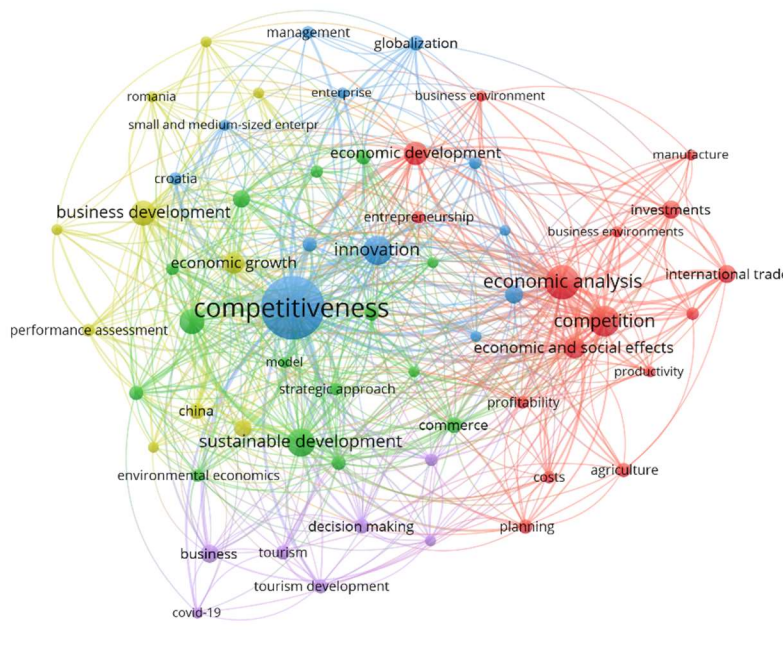*Figure 2* shows the co-occurrence of keywords found in the publications identified in the Scopus database.

Figure 2. *Co-occurrence of words*
Source: Own elaboration (2023); based on data exported from Scopus.

The data in Figure 2, exported from Scopus, shows us our variables and their relationship with other terms which we will explain below.

There is no doubt that to determine the best way to maximize the competitiveness of a company, an Economic Analysis must be previously carried out where the aspects to be taken into account are defined for the generation of new strategies or changes that allow it to remain over time and continue to increase the demand of its customers. As it is a key factor for measuring efficiency and effectiveness, it is necessary for a company to have a high level of competitiveness within the business market based on innovation, development of sustainable proposals and constant training of its work team. Today, sustainability and improvements related to the use of raw materials from renewable resources are one of the fundamental aspects for achieving lasting recognition and preference of customers or users of a company.

4.2 Distribution of scientific production by year of publication

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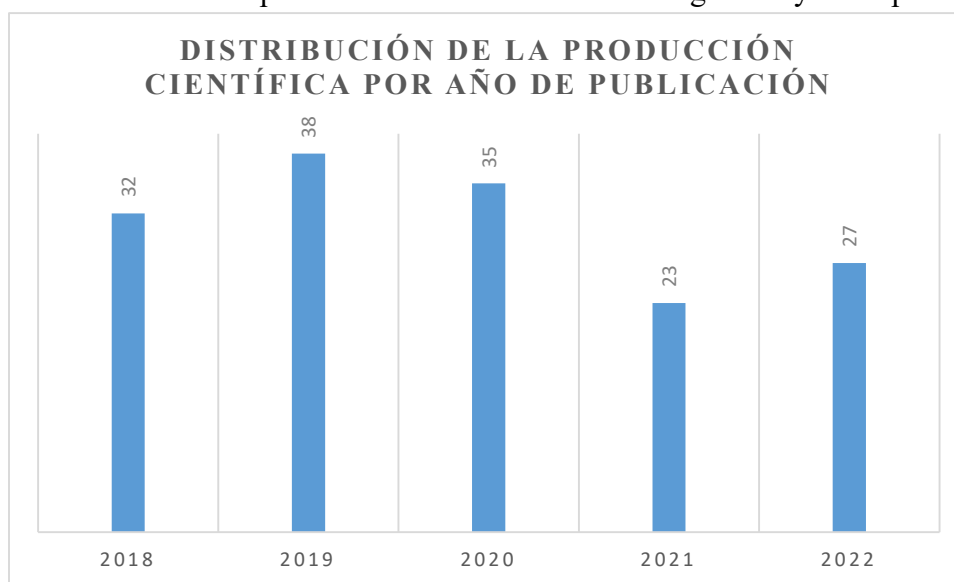

Figure 3. *Distribution of scientific production by year of publication.*
Source: Own elaboration (2023); based on data exported from Scopus

In figure 3 we find the scientific production concerning the variables Economic Analysis and Business Competitiveness during the period between 2018 and 2022 which resulted in the publication of 155 documents, in the Scopus database, containing the keywords. Likewise, it is evident that some changes were experienced throughout the period. We started with the year 2018 with 32 documents, a figure that decreases considerably during all the following years achieving the publication of 23 and 27 documents in the years 2021 and 2022 respectively.

The article "Analysis of competitiveness and sustainable growth of EU countries with the use of the global indices methodology" published in 2018 (Čabinová, Kiseláková, Onuferová, & Šofranková, 2018)ensures that "the multi-criteria approach and assessment methodologies related to global competitiveness have been dynamically adjusted in recent years to reflect current globalization trends in the world economy" (Čabinová, Kiseláková, Onuferová, & Šofranková, 2018) so in its development it intended to analyze the objectivity and deviations of the Global

Competitiveness Index and the World Competitiveness Index to later identify the factors that influence the Economy of Slovakia. 24 countries of the European Union during the period 2006 – 2016 are studied, resulting in the identification of three fundamental pillars for the development of the Global Competitiveness Index in Slovakia but that do not stand out compared with other pillars. For this reason, "it is concluded that it is necessary to clarify the causes of its development and eliminate these identified factors as soon as possible. The results can be seen as beneficial for countries' economic policies in increasing global competitiveness."(Čabinová, Kiseláková, Onuferová, & Šofranková, 2018)

4.3 Distribution of scientific production by country of origin
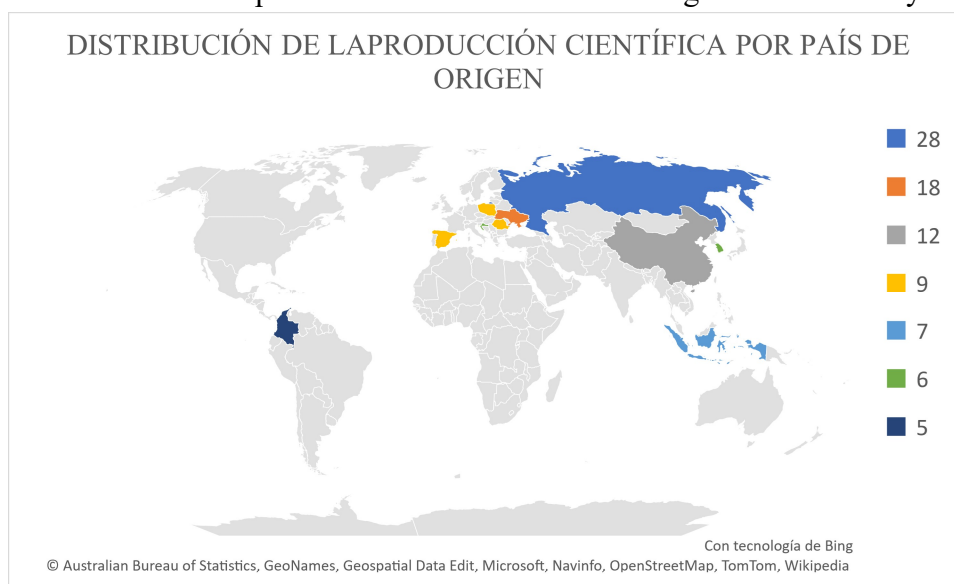*Figure 4* shows how scientific production is distributed according to the nationality of the authors.

Figure 4. *Distribution of scientific production by country of origin.*
Source: Own elaboration (2023); based on data provided by Scopus.

In the study   of Economic Analysis and Business Competitiveness, Russia identifies the list of published documents with a total of 28 records in the Scopus database during the period of the years 2018-2022, followed by Ukraine and China with 18 and 12 documents respectively.

"The performance of exports as a measure of competitiveness" is an article that emphasizes the importance of competitiveness for the (Kittova, Ruzekova, & Steinhauser, 2020) economy of a country since it generates development in different areas, it is for this reason that it has not been possible to determine what is the best way to measure and analyze the causes and factors that directly influence the levels of competitiveness achieved. " The authors of this paper have used econometric equations (models) to quantify and qualify the impact of the institutional environment, a factor represented both by the quality of government and regulatory measures and by the corruption perception index. (Kittova, Ruzekova, & Steinhauser, 2020) In general, the

intention of the authors was to determine the importance of having a better institutional environment for the achievement of higher levels of competitiveness and the reduction of transaction costs having exports as a central axis, however throughout their analysis they were able to demonstrate that "export performance is not a universal indicator of competitiveness, a finding that points to the need to apply other indicators, in particular, multifactorial ones". (Kittova, Ruzekova, & Steinhauser, 2020)

At this point, it is important to note that the preparation of scientific publications in many cases is carried out from collaborations that may involve private and/or public institutions from one or more countries. Therefore, the same publication can be linked to one or more authors with different nationalities and thus to more than one country simultaneously, being part of the total number of articles or publications of each of them in the final sum. Next, in *Figure 5*, you will see in greater detail the flow of collaborative work carried out by several countries.
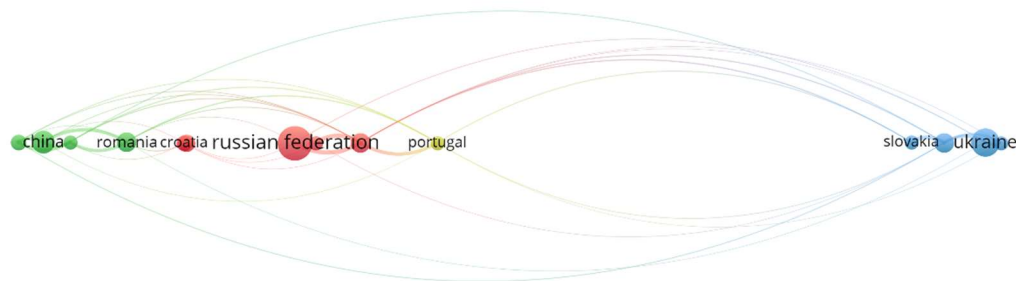

Figure 5. *Co-citations between countries.*
Source: Own elaboration (2023); based on data provided by Scopus.

Figure 5 shows the grouping of research according to the collaboration between authors belonging to various international institutions. There is evidence of outstanding participation among authors affiliated with institutions in countries such as Russia, Romania, China, Slovakia, to name a few.

4.4 Distribution of scientific production by area of knowledge

Figure 6 shows the distribution of the elaboration of scientific publications from the area of knowledge through which the different research methodologies are implemented.
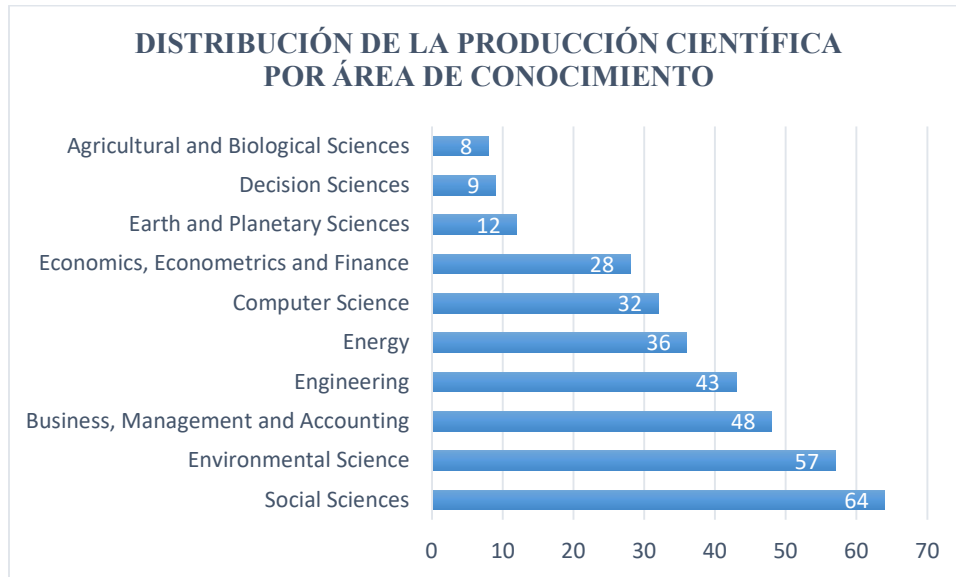
Figure 6. *Distribution of scientific production by area of knowledge.*
Source: Own elaboration (2023); based on data provided by Scopus.

Due to the dependence between the variables Economic Analysis and Competitiveness with the social, economic and environmental aspects of a society, it is not surprising that most of the publications found in the Scopus database, on these are made from the social sciences occupying the main position in the publication of documents. Additionally, studies are carried out from other areas such as environmental science as well as business, management and accounting have contributed to the study of these variables, managing to publish 57 and 48 documents respectively. That is, as we can see in *Figure 6*, the variables object of this study are relevant in various areas of knowledge, since they have the capacity to positively and /or negatively impact the economy and socio-economic stability of a nation.

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.
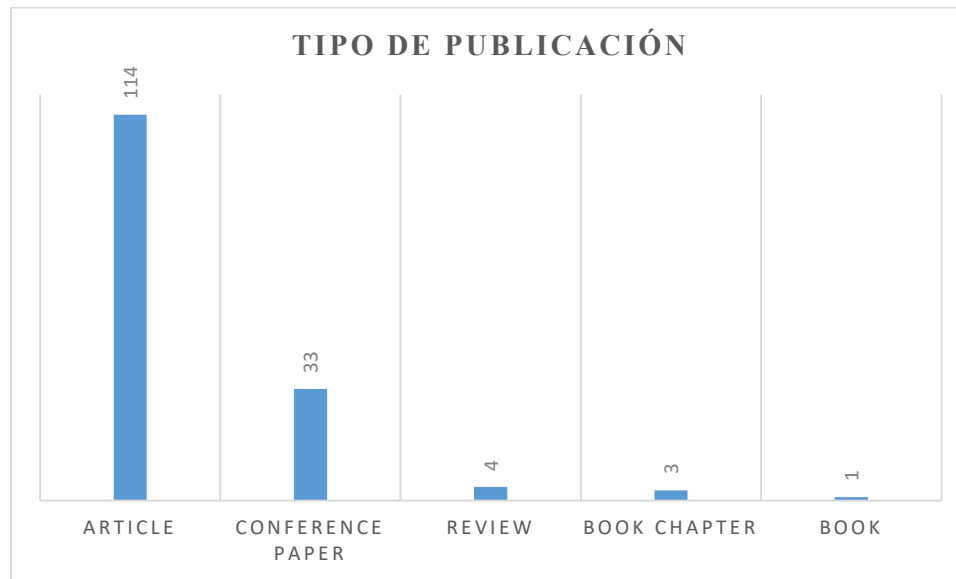
Figure 7. *Type of publication.*
Source: Own elaboration (2023); based on data provided by Scopus.

Figure 7 clearly shows that the predominant type of publication in the study of l Economic Analysis and Business Competitiveness journal article with a total of 11 4 documents, followed in second and third place by conference proceedings with 33 publications and reviews with 4 titles.

The review entitled "Management of Efficiency and Competitiveness of Companies"(Golovchenko, et al., 2022) points out that competitiveness is currently used as a method of measuring the efficiency and effectiveness of a company, hence the importance of achieving high levels of competitiveness within the international market. Globalization and the interdependence it generates between states is fundamental to better understand the world's economy, which is why the authors propose "organizational and financial principles to ensure the competitiveness of the company, information and analytical tools to control the efficiency and competitiveness of companies, identified and demonstrated the logic of harmonizing business management objectives". (Golovchenko, et al., 2022)

5. Conclusions

After the bibliometric analysis carried out in the present research work, it was established that Russia was the country with the highest number of records published for the variables Economic Analysis and Business Competitiveness with a total of 28 publications, in the Scopus database during the period 2018-2022 and that the area of knowledge with the greatest contribution was the social sciences with 64 texts.

At this point, there is no doubt that Economic Analysis and the development of Business Competitiveness maintain a close relationship because the first is known as "a set of techniques to diagnose the situation of the company, detect reserves and make the appropriate decisions", that is to say that with its execution it is possible to "diagnose and make decisions for the achievement of

the following objectives"(Comas-Rodríguez, Hernández-Nariño, Medina-León, Medina-Nogueira, & Nogueira-Rivera, 2017)(Comas-Rodríguez, Hernández-Nariño, Medina-León, Medina-Nogueira, & Nogueira-Rivera, 2017):

1. Survive: maintain its operation, meeting the commitments made.
2. Be profitable: generate sufficient profits to return to shareholders, finance investments and achieve the balance between profitability and liquidity.
3. Grow: increase sales, market share and profits.(Comas-Rodríguez, Hernández-Nariño, Medina-León, Medina-Nogueira, & Nogueira-Rivera, 2017)

On the other hand, it is essential to highlight that most of the documents found in Scopus alluded to the development of Competitiveness taking into account sustainability which is precisely due to the realization of these Economic Analyses, which have made Companies turn their processes around and concentrate on finding ways to implement sustainable alternatives that promote the development of good quality products using ecological raw materials which has contributed to the attraction of more customers or users. All this results from the global situation and the concern that the majority of the population maintains about global warming and the need to make changes in the pattern of consumption. For all of the above and with the sole objective of continuing to raise awareness of the importance of guaranteeing access to this type of information in a transparent manner by anyone, we hope to promote with this article the participation of scientific communities in the study of these variables from any scientific profile and area of knowledge always seeking to provide more alternatives that contribute to the investigation of General interest.

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