

LA AUDITORÍA ADUANERA EN EL COMERCIO INTERNACIONAL. TENDENCIAS Y FLUJO DE CONOCIMIENTO

THE CUSTOMS AUDIT IN INTERNATIONAL TRADE. TRENDS AND FLOW OF KNOWLEDGE

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RESUMEN

En este trabajo se realiza un análisis bibliométrico de la tendencia mundial en materia de Comercio Internacional y Auditoría Aduanera como herramienta para contribuir al debido cumplimiento (Due Diligence) y lograr el cumplimiento normativo (Compliance). Esta investigación realizó un análisis bibliométrico utilizando la información de la base de datos Web of Science. Además, el software estadístico R y la biblioteca Bibliometrix y sus dependientes realizan

el análisis cuantitativo. El estudio permitió encontrar un aumento en el interés de los temas de fuentes académicas y distinguir regiones del mundo con una alta incidencia bibliográfica relacionada con los temas y vínculos entre ellos. Otros hallazgos relevantes identifican relaciones entre los principales temas de análisis y aquellos como gobernanza, riesgo, gestión, políticas, leyes, etc. Además, el método de mapeo científico y el método de enriquecimiento permitieron identificar relaciones regionales entre las áreas más activas en bibliografía. producción de este tipo.

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ABSTRACT

In this work, a bibliometric analysis is carried out on the world trend regarding International Trade and Customs Auditing as a tool to contribute to due compliance (Due Diligence) and achieve regulatory compliance (Compliance). This research conducted a bibliometric analysis using the information from the Web of Science Database. In addition, the R statistical software, the Bibliometrix library, and its dependents perform the quantitative analysis. The study made it possible to find an increase in interest in the topics from academic sources and to distinguish regions of the world with a high bibliographic incidence related to the issues and links between them. Other relevant findings identify relationships between the main topics of analysis and those such as governance, risk, management, policies, laws, etc. Furthermore, the scientific mapping and enrichment methods allowed the identification of regional relationships between the most active areas in bibliographic production of this type.

Keywords: Audit and Services, Public Management, Bibliometric Analysis, Business Ethics, Anti-Corruption, Strategic Management.

1. INTRODUCTION

In recent decades, trade auditing has undergone significant transformations associated with the impressive dynamics that international trade has followed in just a few decades.

The previous makes it possible to answer some questions such as what has led to these changes? Where are they pushing it, and what reconfigurations is this commercial and mercantile control mechanism taking? The answers to the questions will allow researchers and practitioners in international trade to understand the flow of knowledge and information about auditing international trade.

For this reason, the following research work uses bibliometrics as a methodology to understand these movements and trends. Furthermore, combining bibliometric methods with current computer systems provides excellent advantages, such as adding enormous amounts of data and bibliographic information and transforming them into graphic instruments that facilitate the visualization, understanding, and analysis of these large amounts of data aggregates.

1.1. BACKGROUND

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The world changed after the Second World War (WWII). The material, human and economic devastation had to disappear quickly lest regional, and world conflicts deepen and escalate. The United States of America (USA) and the United Kingdom were responsible for formulating the necessary works for the foundation and operation of international organizations that allowed the abolition of war to solve political and economic problems between nations.

The International Monetary Fund (IMF) and the World Bank (WB) were two of the first international organization. In this way, the International Trade Organization (OIC) arises to manage and operate international trade by the winning countries is formed. However, after the US Congress did not support it, it became known as the General Agreement on Customs

Tariffs and Trade (or GATT for its acronym in English). These events led to the international trade guidelines as they are known today having to wait until the 1980s to begin their transformation and go from being a general agreement to the World Trade Organization (WTO) (VanGrasstek 2013, 3–11).

In the 1940s, the European Economic Cooperation Committee created the World Customs Agency, an organization whose principal mission was and continues to be to increase the efficiency of customs administrations in the world. The GATT sought general conditions for the expansion of international trade; however, until the 1980s was not very successful given the restrictive conditions of capital mobility and existing international trade that brought protectionist trade policies. As a part of the restrictive conditions, all merchandise had a review process at customs, and post-clearance inspection, it was utterly null (Basaldúa 2016; Maldonado 2009).

With the Uruguay Round, the consolidation and implementation of the World Trade Or-

ganization (WTO) in the 90s became a reality, which gave way to trade liberalization and allowed random customs review criteria to be applied, in addition, to promote reactive customs, which at the time led to post-clearance inspection. Along with the above, the North American Free Trade Agreement (NAFTA) was signed and launched between Mexico, the United States of America, and Canada. NAFTA puts more significant pressure on the consolidation of the WTO, allowing customs to advance by making them risk managers by performing automated risk reviews and post-clearance inspections carried out by different units (Organización Mundial de Comercio 2018). From 2012 onward, applied comprehensive risk models, customs clearance facilitated trade, and specialized post-clearance inspection (Basaldúa 2016; Maldonado 2009).

Additionally, and since 2015, through the World Trade Organization, the Trade Facilitation Agreement was ratified, which sought to harmonize trade and thereby simplify customs procedures and practices (Organización Mundial de Comercio 2018).

The agreement highlights in article 7, 'Release and dispatch of merchandise' the following:

- 5.1. Each member will adopt post-clearance audit procedures (APD) to expedite release.
- 5.2. The Post-Dispatch Audit (PDA) will select the Individuals or shipments based on risk transparently.
- 5.3. The information obtained from a Post-Dispatch Audit (PDA) procedure may be used in administrative or judicial proceedings.

Also, the publication: "Guide to good practices in Customs Auditing" (Banco Interamericano de Desarrollo 2009, 1) that:

“The customs audit must be located within the general structure of controls in foreign trade. From this perspective, customs control could be defined as the action exercised by the customs authorities of a country on foreign trade operations with the following objectives:

- Determine the effective customs and tax debt derived from them.
- Verify compliance with all the requirements and conditions related to declared operations”.

The (anco Interamericano de Desarrollo, (2009, 1) also points that “Customs control can carry out its operations at different times (before, during, or after the authorization of the release of the goods).”

In this regard, the operator must request a customs destination for the goods through a customs declaration (first-line control): controls related to the goods’ dispatch and transit before their release. In a second instance, the customs authorities have the power to restructure the controls about documentation after clearance (second-line control) and with tax audits of foreign trade operations (third-line control). For this reason, customs complexes must consider adapting to the new international reality to establish an adequate structure of customs controls.

For example, in Mexico, the National Anti-corruption System was established in 2016 and a control system. This action responds to the existence of a generalized consensus for the fight against corruption and therefore must occupy a transcendental place on the national and international agenda. Without a doubt, acts of corruption are present at all borders. That is why it is in the international community’s interest to attack it in a coordinated manner. In this way, various international instruments have been drawn up regarding “compliance” or regulatory com-

pliance and “due diligence” or due compliance. They propose measures for prevention, avoiding impunity, asset recovery, and international collaboration in the fight against corruption (OCDE, UNODC, and Banco Mundial 2013; Durrieu and Saccani 2018).

1.2. BIBLIOMETRIC, A BRIEF DESCRIPTION

The treatment, analysis, and visualization of data is a discipline that has been present in the academic field through various areas of knowledge. However, this discipline has gained a lot of strength in recent years because, on the one hand, the production of information has increased considerably, not only in the scientific field but also in other areas such as business, economic, technological, among others. ; and on the other hand, the demand for information by society is increasing, which has developed exponentially with the appearance of information and communication technologies (De la Nava and Alfaro 2021; Domínguez- Gutiérrez 2020; Tabernero Sala, Álvarez Ramos, and Heredia Ponce 2020), thus establishing the general concept of the information society.

The preceding has led, in recent decades, various academic areas to worry about having a source of information resources that allow obtaining an overview of which are the main channels or flows of information in each area. The importance of knowing these information flows lies in the generation or management of knowledge and other related issues, such as data protection and copyright. The latter, in turn, are involved in many areas of expertise, especially those that have social, legal, and economic guidelines. Vanti, (2000) points out that some scholars developed analysis techniques oriented to bibliometrics due to this need to evaluate scientific information. However, Shapiro, (1992)

points out that these scientific information analysis techniques are much older, dating back to the 18th and 19th centuries, where scientific bibliometric measurement elements of the time were registered. Therefore, the measurement and evaluation of scientific production and its continuous flow have accumulated a lot of history and interest over time.

Under this order of ideas, questioning the reason for this interest in measuring scientific production in a specific region is visualized; therefore, it is necessary to know the concept of each measurement technique. The concepts “bibliometrics” and “informetrics” might be thought to be very similar. However, the literature indicates no consensus between the two concepts. The difference lies in the approach with an economic perspective based on the allocation of resources and policy found on the legislation (Araújo Ruiz and Arencibia Jorge 2002).

The production of data and its transformation into information has grown exuberantly in recent decades through technological advances. This idea has led various government bodies (primarily observed in developed countries and have spread to emerging countries) to measure the degree of science production in multiple areas. This measurement of science through academic publications allows decision-makers in the countries to establish policies directed towards research and channel resources that encourage applied research. According to Rojas and Espejo, (2020), these policies contribute to economic development due to behavioural today's economic society. It is not only enough to consider the main factors of production, but they must consider intellectual capital. The preceding supports the importance of a link between the various bodies contributing to this economic growth by establishing collaboration in projects and investment between public and private organizations and bodies.

As mentioned above, there is no consensus among the techniques used to measure the information. However, Vanti, (2000) offers an approach by pointing out that computer techniques began to have a presence through the works related to information science in the 80s. These, in turn, contained elements of bibliometrics and scientometrics. In addition, Spinak, (1998) points out that the basis of informetrics is the techniques mentioned above and as an objective to develop theoretical models that allow finding the association of data from various sources with literary production in each area. On the other hand, Macías- Chapula, (2001) points out that bibliometrics oversees carrying out studies concerning the production, dissemination, and use of available information. These actions are always associated with various quantitative methods for preparing forecasts and projections of the scientific output in the arena of interest. Likewise, Scientometrics, according to Van Raan, (1997), is defined as the technique that quantitatively studies science and technology to determine what is the advancement of knowledge of these with social and political foundations.

As can be distinguished in the description of each concept, the study of scientific production has various social, political, and economic connotations and implications. Therefore, the scope of these measurement and evaluation techniques is essential to determine the flow of knowledge locally and globally (Araújo Ruiz and Arencibia Jorge 2002).

Hence, the general objective of this research is to know the trends and flow of information concerning customs audit issues and compliance with regulations and due diligence in international trade. Therefore, this research will make it possible to contribute to the state of the art and determine where this political, economic, and commercial control mechanism is going by identifying its influ-

ences and present and future dynamics. There are some sections in this paper after this introduction. The first section will describe the methodology to support the bibliometric analysis. The second section will show the analysis of the data and the research results. The final part of this paper will explain the study's main conclusions and their implications in the arena of knowledge.

2. METHODOLOGY

As it has been possible to distinguish in the previous section, the measurement techniques on the flow of knowledge vary and have implications in various areas. These techniques will make forecasting future compliance issues in customs audits. Given the characteristics of the research scenario, this research will implement a bibliometric analysis based on Donthu's guidelines (Donthu et al. 2021).

The analysis consists of various processes that suggest a series of steps for development. For example, scientific or systematic mapping (Macchi and Solari 2012) consists of the following points: 1) Define the research questions, 2) Carry out a literary search, 3) Select the studies concerning the research objective, 4) Classify the selected articles and 5) Extract and aggregate data for analysis. In this sense, bibliometric analysis is not far from these procedures; for example, Souza de Alencar, Vieira Junior, and Xavier Belém, (2021) suggests the following steps:

1. Initial research plan.
2. Analysis of the current context to define the keywords.
3. Carrying out the database search.
4. Preparation and analysis of clusters and graphs.
5. Analysis and intermediation.
6. Evaluation of results.
7. Conclusions and opportunities.

Similarly, Donthu et al., (2021) points out that to carry out the bibliometric analysis is necessary to comply with:

1. Define the objectives and scope of the bibliometric study.
2. Select the techniques for the bibliometric analysis.
3. Collect the data for the bibliometric analysis.
4. Perform the bibliometric analysis and report the findings.

The Autonomous University of San Luis Potosí (UASLP) has a Web of Science Resource Core Collection Database access through the CreaTiva system. This research work built a dataset from this resource following the study's objective and the methodological process described above. The WoS database met expectations due to the scope of academic articles and the diversity of areas related to the central issue of this research.

The UASLP subscription has the complete collection of all editions of citation indexes and their indicators Science Citation Index Expanded, Social Science Citation Index (Both with coverage from 1900 to the present), Arts & Humanities Citation Index (Coverage 1975 to the present), Emerging Source Citation Index (Coverage 2015 to present). The subscription also includes conference articles but does not have proceedings books. Instead, the system provides tools to graphically view activity and trends for posts and citations, allowing researchers to analyse the results to identify trends and publication patterns.

The methodology indicates that several text strings must be made to establish the search criteria to obtain the data. In addition, the search language was English. In this way, the scope would be more significant. The procedure used is as follows:

First, compile a base text string. For this

case, the term “International Trade” was the starting point for obtaining data. Second, the use of additional terms helps to specify the search. In this case, the representations “Compliance”, “Anticorruption”, “Custom Audits” and “Custom Inspections” limited the results.

Finally, it is essential to set the search criteria on the document platform. For this case study, the settings for the search fields covered all areas. In turn, due to the theme used in this work, the geographic search restrictions were not limited.

Table 1 shows the process carried out through a general search for documents. This research work does not carry out exclusions of records due to the importance of the topic. The results of the examination were 3215 documents.

With the database obtained, a debugging of the records was carried out employing a specific text search in the abstract. A total of 298 samples were obtained after this process.

A duplicate verification process was also carried out for each record. After the procedure, eight papers presented duplication problems. The process was to eliminate the documents with this problem. The final sample was 290 records. The characteristics of the sample indicate that 249 documents correspond to research articles, 3 to book chapters, 13 to conference papers, 17 to academic reviews, 8 to academic journals.

The temporality of the search ranged from the oldest record to the newest record. The search method established a range from January 1994 to March 2021. The statistical software R and RStudio as a graphical interface performs the analysis. The libraries' bibliometrix and the biblioshiny interface perform the bibliometric study in this research.

The next step is to enter the dataset in Bibliometrix to establish the working corpus. Subsequently, the knowledge flow analysis is carried out for each of the central themes of the research. The following section develops each of them.

TABLE 1. WEB OF SCIENCE SEARCH STATEMENTS.

Search statement	Overall results	Results through selection
“customs audit” (Abstract) or “anti-corruption” (Abstract) and “International Trade” (Abstract)	163	8
“customs audit” (Abstract) or “Compliance” (Abstract) and “International Trade” (Abstract)	1278	240
“customs inspection” (Abstract) or “Compliance” (Abstract) and “International Trade” (Abstract)	1774	50

Source: Own elaboration

3. PRESENTATION AND ANALYSIS OF RESULTS

For the bibliometric analysis, this research work will be divided into three parts. First, establish a performance analysis to identify the most critical aspects of the selected

bibliography. The research objectives will form an active part of the bibliometric analysis. For this case study, the objectives refer to the trends and flow of information concerning customs audit issues and compliance with regulations in international trade. This process will allow the researcher to make a

first evaluation of the trends in these areas. Secondly, take the

analysis to a level where science mapping will establish relationships between the keywords themselves and their behaviour and interrelation. Finally, the elaboration of networks and clusters of words allows us to meet this objective as far as possible.

3.1. PERFORMANCE ANALYSIS

This part of the analysis starts by considering some graphs concerning the behaviour of bibliographic production, citations, citations by country, the h-index and the growth of sources. Figure 1 shows the annual scientific production on the issues related to auditing in international trade and regulatory compli-

ance and due compliance. Also, it could be observed that these issues have been fundamental in recent years, especially since the creation of the WTO in the last century. The graph also shows that in recent years, indicators have grown to their maximum peak in 2019 and very marked peaks in 2009 and 2013.

The following analysis corresponds to the most cited documents. It is interesting to note that those written at the beginning of the 21st century are the ones that reach the most citations. The analysis allows researchers to understand the topics' flow through various areas of knowledge despite the time that has elapsed since its publication to the present. Figure 2 shows the global citations by authors since 2001.

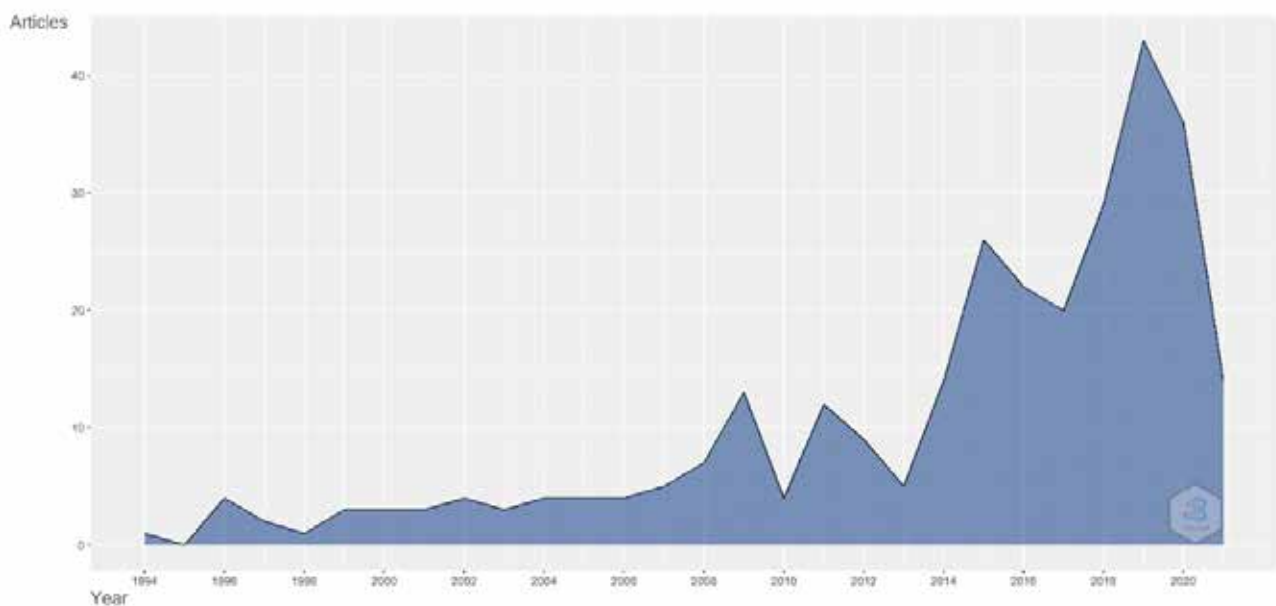


FIGURE 1. ANNUAL SCIENTIFIC PRODUCTION

Source: Own elaboration from Bibliometrix and Biblioshiny

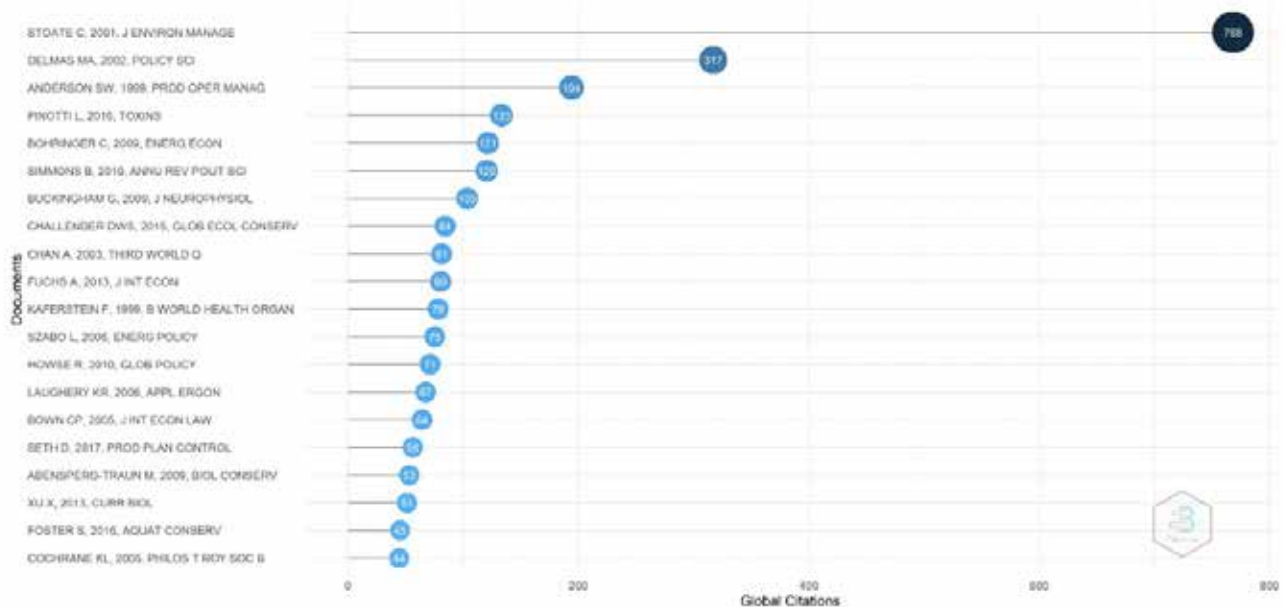


FIGURE 2. DOCUMENTS MOST CITED GLOBALLY

Source: Own elaboration from Bibliometrix and Biblioshiny

For this research, it is essential to know the geographical origin of the bibliography. Therefore, Figure 3 has a significant contribution and shows that the USA has the most documents cited. This should not be surprising given the importance and significance of international trade for that country. What is important to highlight is the involvement of the USA to issue control regulations for international trade through audits known as “Compliance Regulations” and “Due Compliance”. The figure also shows that other countries such as the UK, Germany, China, and Australia attach high importance to these regulations. Therefore, it can be deduced that there is a high correlation between the publications and the countries

interested in these issues and the fact that these countries are commercial powers. In the case of Latin America, it is striking that Brazil is the only country interested in the subject; in some way, it is logical to think about it since this country has a lot of commercial potentials and occupies first place in exports in the region. On the other hand, countries like Mexico, Argentina and Chile should also show interest since they are the three countries below Brazil.

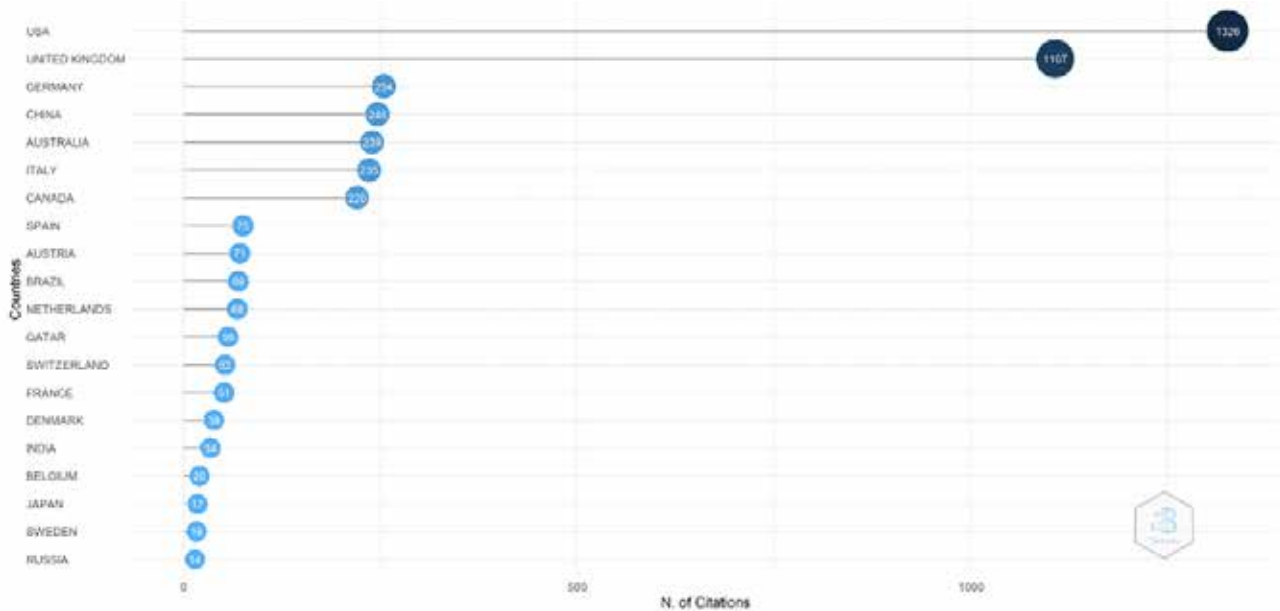


FIGURE 3. LIST OF THE MOST CITED COUNTRIES IN RELATION TO THE RESEARCH TOPIC

Source: Own elaboration from Bibliometrix and Biblioshiny

In order to analyse the flow of knowledge based on academic research articles, it is necessary to carry out a collection phase as explained above. Bradford's law is a method that allows us to state that there is a decreasing trend of research articles on a topic. This law forces the researcher to expand more than proportionally the number of journals reviewed to locate twice the number of articles initially found. In this research study, it can be seen from Figure 4 that the first seven

articles belong to only one journal. However, for Bradford's law (proportional number of journals) to be fulfilled, at least two more journals add another seven articles. This action should be increased to ensure the indicated number of journals and their proportional number of scholarly articles. For example, if 50 articles on the research topic are required, approximately 15 journals will need to be evaluated.

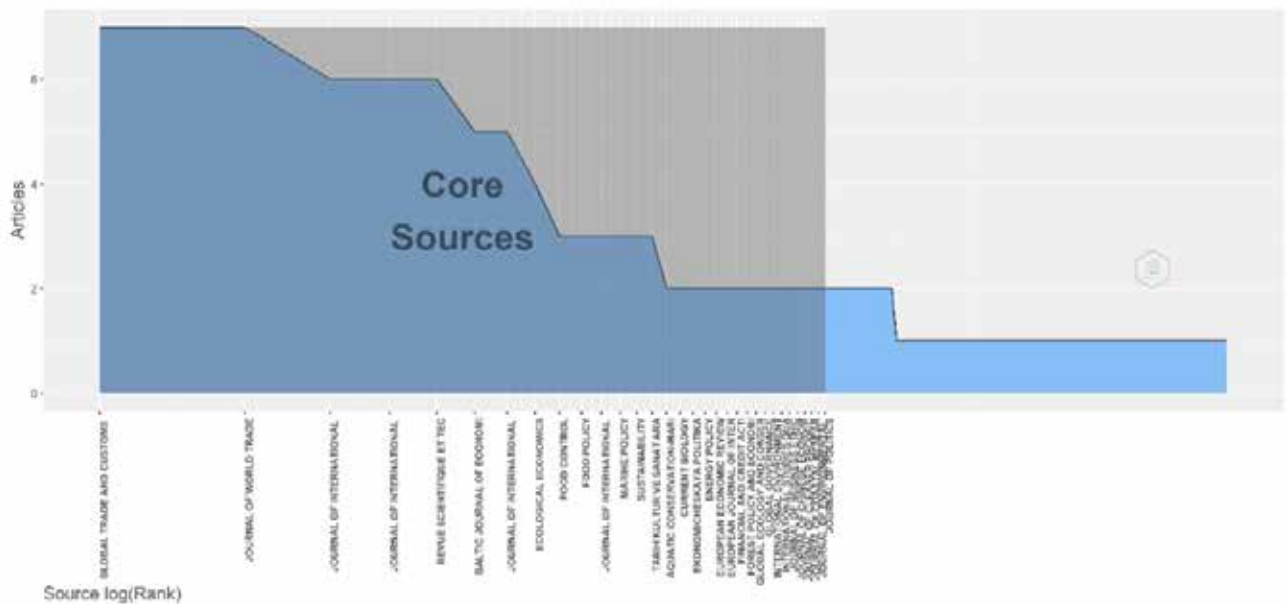


FIGURE 4. BRADFORD'S LAW

Source: Own elaboration from Bibliometrix and Biblioshiny

The h-index for journals is an indicator that relates the number of articles published to the number of citations received. This index is designed to measure the efficiency and quality of researchers in the same area of knowledge. Figure 5 shows that only two journals have a high h-index are "Global Trade and Customs Journal" and "Journal of

World Trade" for the topics analysed in this research. These journals are followed by the journals "Journal of International Economic Law", "Journal of International Trade Law and Policy" and "Revue Scientifique et Technique-Office International" with an index of 6, while the following five journals have four.

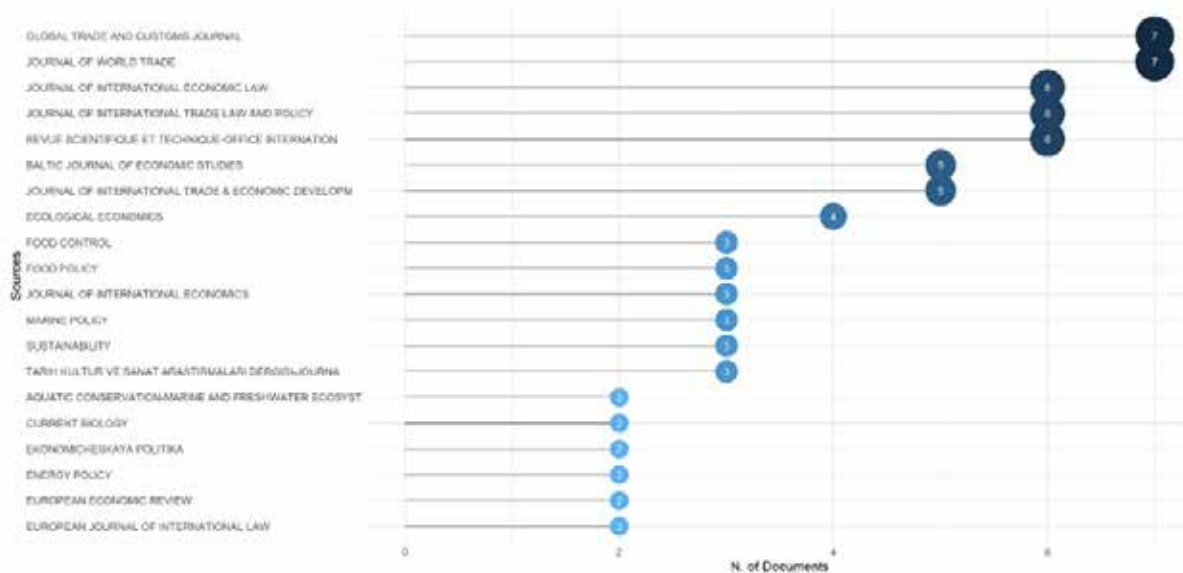


FIGURE 5. LOCAL SOURCE IMPACT BY H-INDEX

Source: Own elaboration from Bibliometrix and Biblioshiny

Figure 6 shows the annual growth of bibliographic sources. As in the previous graph, the analysis is based on journals, with the addition of the time variable. This type of analysis allows researchers to observe the journals with the most extended trajectory and acquire the most significant thematic notoriety concerning time. For this research

work, it can be observed that the Journal of International Economic Law is the journal with the most extended trajectory over time. However, the Journal of World Trade and the Global Trade and Customs Journal has accumulated the most notoriety in recent years in terms of accumulated occurrences.

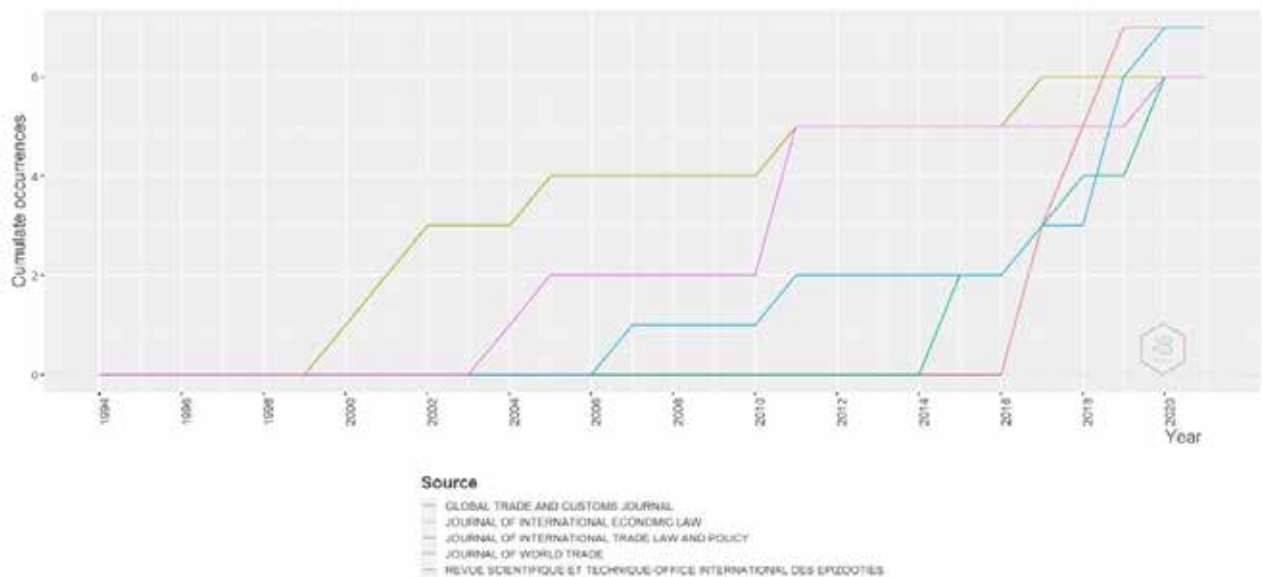


FIGURE 6. ANNUAL GROWTH OF BIBLIOGRAPHIC SOURCES

Source: Own elaboration from Bibliometrix and Biblioshiny

3.1. SCIENTIFIC MAPPING

Scientific mapping refers to the extraction of relationships between the constituent elements of publications such as citation analysis, co-citation analysis, bibliographic linking, co-word analysis and co-authorship analysis (Donthu et al. 2021).

In the case of this research work, some analyses that significantly impact the proposed objectives will be considered. According to the suggested methodology, scientific mapping can be carried out through various actions such as:

- Trending topics.
- Keyword clouds plus (words that the software identifies within the documents as those most frequently mentioned).
- Evolution over time of the plus keywords.
- Collaboration map by country.

Figure 7 of the trending topics allows us to identify those plus keywords that are mentioned in the bibliography with greater relevance and importance by year, where the ones that appear, the most are related to the topics that have been causing more interest, such as the impact of audits on international trade, conservation, standards, and risk, as well as governance, administration/stewardship, productivity.

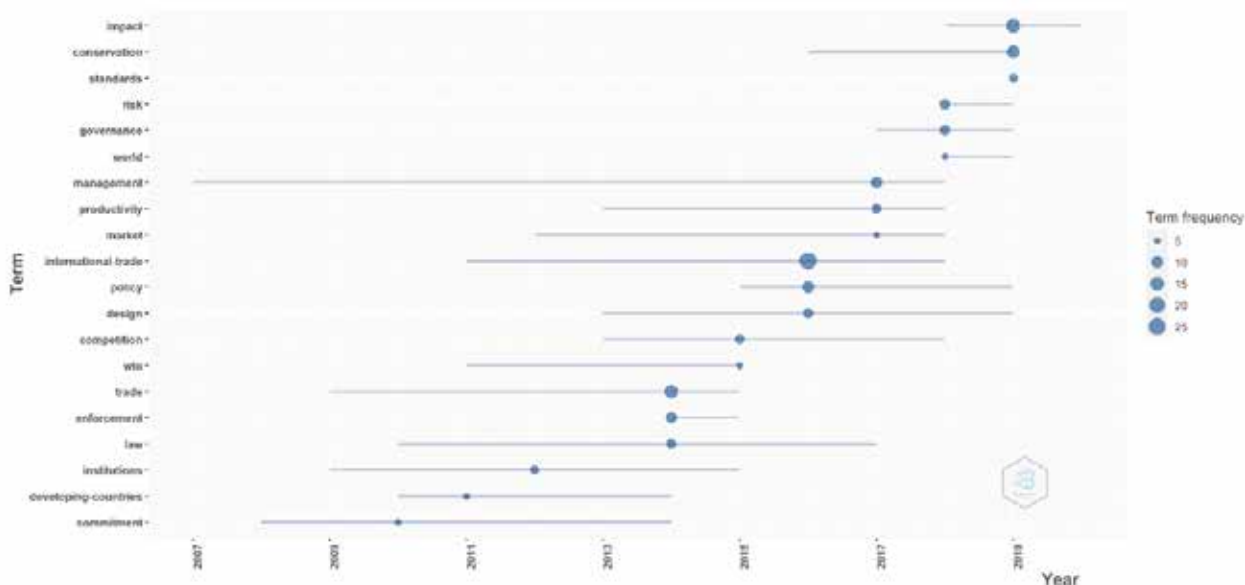


FIGURE 7. TRENDS TOPICS ON COMPLIANCE AND DUE DILIGENCE

Source: Own elaboration from Bibliometrix and Biblioshiny

The word cloud also allows reaffirming the analysis of the previous figure. Figure 8 allows researchers to look at some other words such as performance, law, policy, business, or

developing countries. Some of them do not show a comprehensive intensity. However, they are latent as a possible line of investigation.



FIGURE 8. CLOUD OF KEYWORD PLUS

Source: Own elaboration from Bibliometrix and Biblioshiny

Country collaboration map. This analysis makes it possible to identify collaborative relationships between authors according to their geographic location. The results show that the highest concentration of collaboration between authors is in the USA and China as is shown in Figure 9 and is consistent with comments on in previous analyses of this document. Both China and the US are two countries that are currently leaders in international trade, so this result explains the interest of both countries in the subject studied in this job.

Other regions with high collaboration are Southeast Asia and Australia, representing a very intense relationship. Nevertheless, the US maintains intense collaboration with China and Europe and with the region that makes up Southeast Asia and Australia. Canada also has collaborative relationships with that region made up of Southeast Asia and Australia. South America stands out for its little collaboration relationship.

Country Collaboration Map



FIGURE 9. MAP OF COLLABORATION BETWEEN COUNTRIES

Source: Own elaboration from Bibliometrix and Biblioshiny

Figure 10 represents the thematic evolution for the case of this research. This figure makes it possible to observe how the flow of knowledge or themes varies concerning time. In addition, the analysis allows observing the relationships between the themes or areas of knowledge in different periods. For example, from 1994 to 2016, the relationships between administration/direction, policy, performance, trade, and international trade

preceded. However, for the period from 2017 to 2021, it is perfectly observable that the administration/direction is related to issues such as conservation and risk, while politics is related to issues of competition, international trade, risk, and governance, which is very significant of what are the most important interests that can be in this literature.

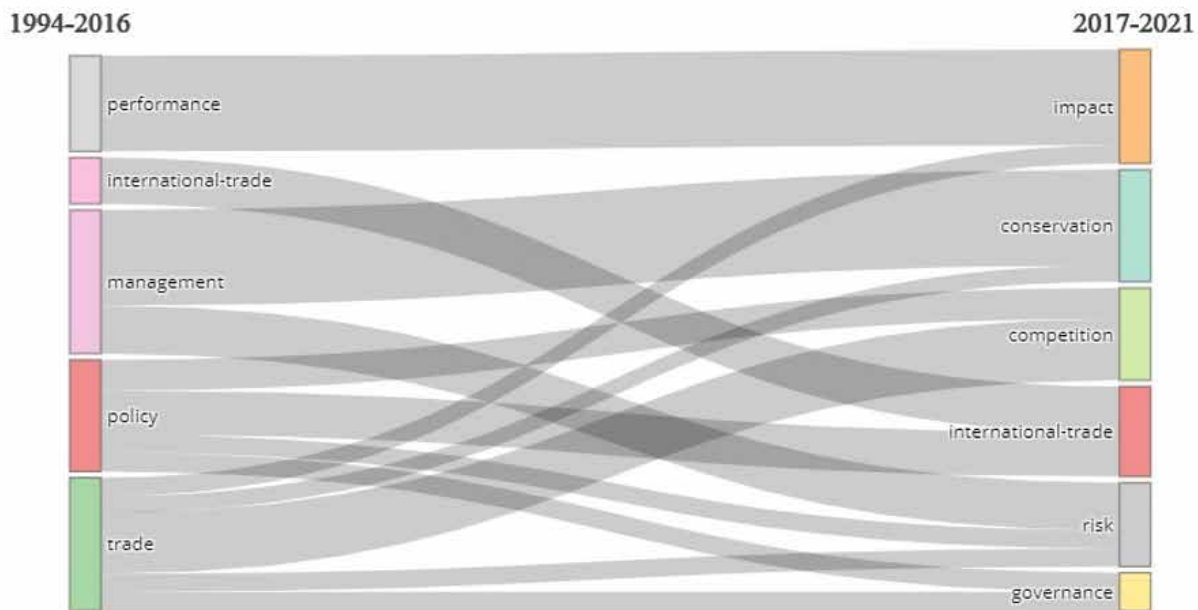


FIGURE 10. MAP OF TOPICS DIVIDED INTO TWO PERIODS

Source: Own elaboration from Bibliometrix and Biblioshiny

3.3. ENRICHMENT TECHNIQUES

Content enrichment techniques make it possible to strengthen the knowledge flow analysis. For example, this technique allows the development of cluster-type graphics and network-type graphics under various contexts such as clusters of plus keywords or geographic regions. Figure 11 shows the conceptual structure map for the case study of this research. The figure shows two large clusters, one very dense, with many words

related to each other (red colour) and the other with much fewer words. The first manages to combine very diverse words and occupy very central places such as legitimacy, risk, governance, China, food, health, crisis, and others further from the centre, such as corruption, stability, performance, structure, behaviour, among several more. On the other hand, the less dense one has words like cooperation, world, committees, and liberation in the centre.

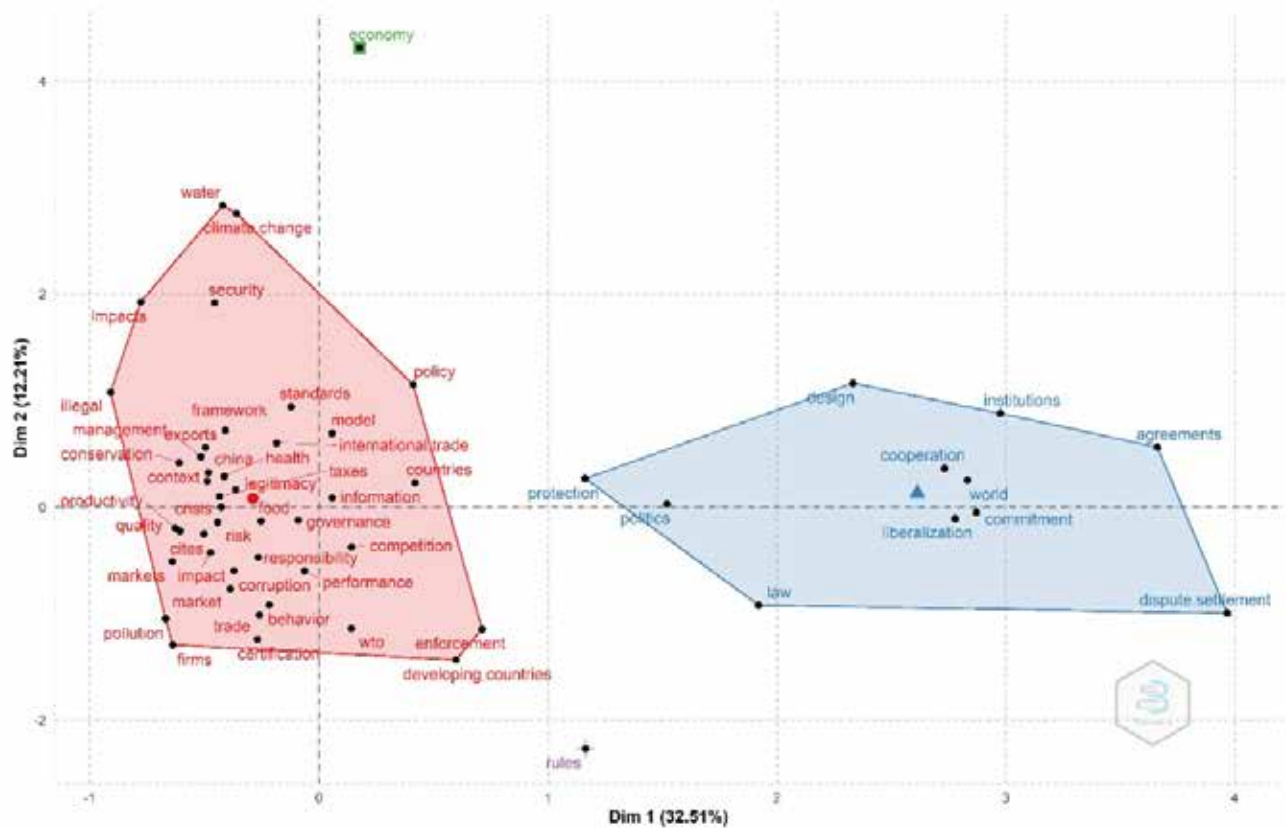


FIGURE 11. CONCEPTUAL STRUCTURE MAP BY THE MULTIPLE CLASSIFICATION METHODS.

Source: Own elaboration from Bibliometrix and Biblioshiny

Figure 12 represents the network and cluster analysis by country. This type of analysis performs an association of publications by country. The graphic representation clearly shows that the USA occupies the central and most prominent position, which refers to this country's specific weight on the subject. The relationship that the US has with other countries of great importance in international trade, such as the United Kingdom, Australia, and Brazil, is also clearly observable. This analysis is of great interest for the research context, the relationship with China, which occupies an important place in the current economy and trade, which has a significant commercial relationship with coun-

tries in its geographic region. Furthermore, it is essential to detail that the US also has a strong relationship with the European Community, which can be described as a region that has progressively emerged in its production system, generating a strengthening in its value chains.

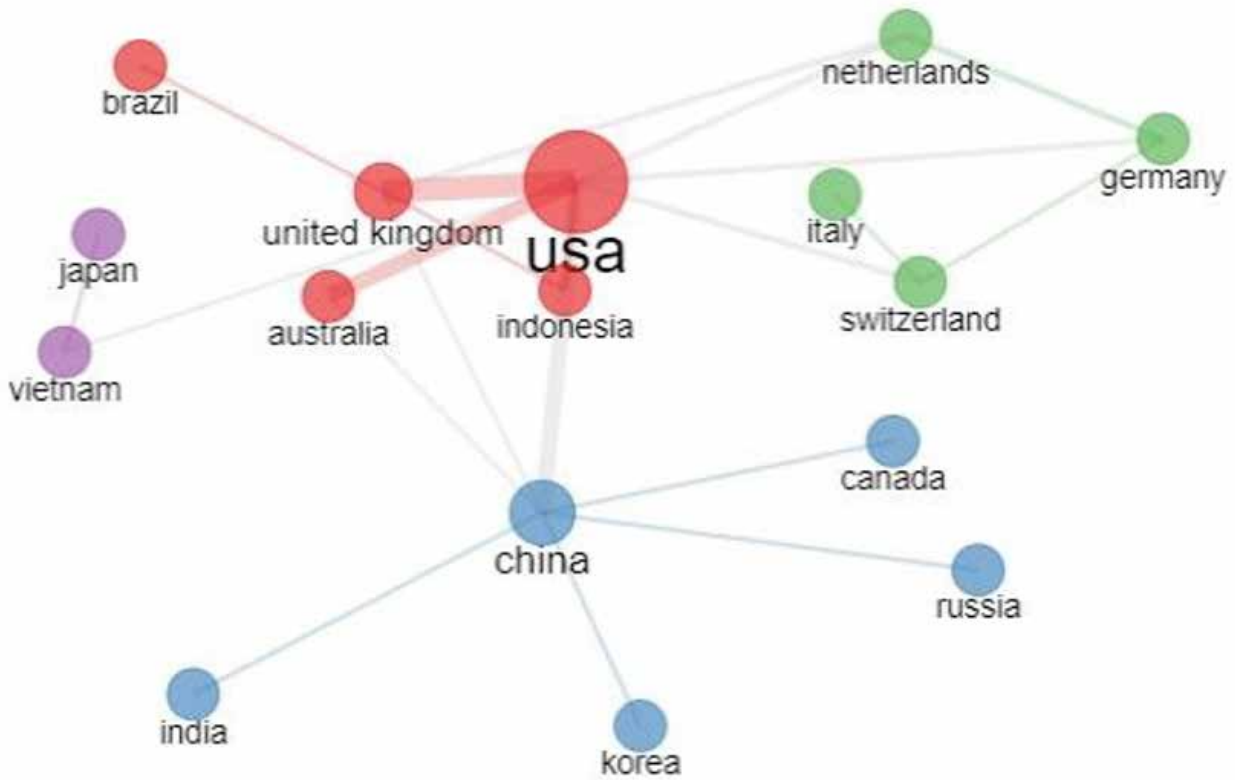


FIGURE 12. NETWORK AND CLUSTER ANALYSIS BY COUNTRY.

Source: Own elaboration from Bibliometrix and Biblioshiny

The graph of networks and clusters generated from Keyword Plus shows the topic of International Trade in the clusters' centre. According to the previous results in this research, it is convenient to point out that the central theme is related to themes on Policies, Governance, Competition, and Productivity. Figure 13 shows the findings indicating that governments must consider international relations and economic policy on the correct application of Compliance and Due Diligence in terms of International Trade and International Economic Policy. Another interesting finding is the proximity of the central cluster with the other clusters referring to the Institutions. It is important to note that the

relationships between clusters have implications with Commitments, Dispute Resolution, Laws and Agreements, among others. In addition to the previous relationships, relationships with a greater weight can be clearly observed towards issues such as Performance, Companies, Trade, Risk and Standards, which corroborates the importance of this issue regarding international trade.

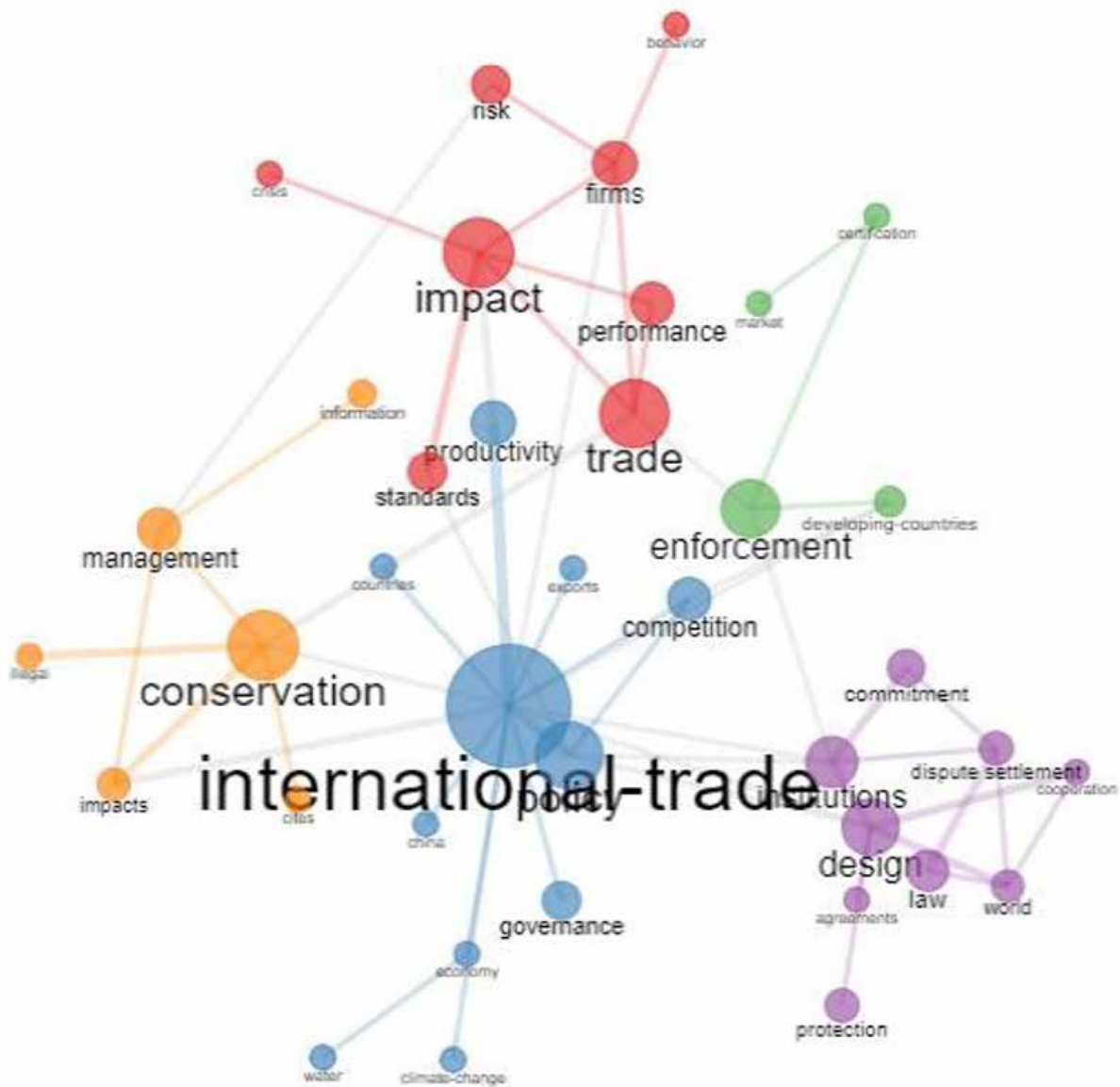


FIGURE 13. NETWORK AND CLUSTER ANALYSIS BY KEYWORDS PLUS

Source: Own elaboration from Bibliometrix and Biblioshiny

4. DISCUSSION

In current literature, many areas can be found that address the topics discussed here. Specifically, emblematic cases such as Enron, Odebrecht, Volkswagen, GyM have been studied. These cases highlighted the importance of ethics, social responsibility, and legal risk, becoming fundamental and necessary business organizations. The integration of these activities in the business environment makes it possible to avoid devastating effects on the image, reputation, and relationship

with society and, in this way, reduce social questioning on issues about the management of business resources and the quality of information that they transmit abroad (Ameen 2020; McBarnet 2006).

Those management models that evolved to what we know today as "Compliance" gained recognition from these events. Currently, compliance is emerging as a new way of doing business, which is supported by the international market. Maintaining a compliance structure in the company can imply an unaffordable and robust investment.

However, organizations should consider the benefits of implementing this function. Arredondo-Hidalgo, Caldera González, and Barradas Bribiesca, (2019) point out that the term compliance in international trade can be considered full compliance with tariff and non-tariff regulations of the country of destination or operation.

Professionals dedicated to the design and monitoring compliance with regulations and Due Diligence programs in organizations (i.e., Chief Compliance Officer) must show excellent knowledge in legal areas and accounting and methodological auditing areas. In other words, the importance of "compliance" should currently be emphasized in international regulations such as accounting (IAS), financial (IFRS) and International Auditing Standards, Techniques and Procedures (ISAs). For the audit area, the desirable knowledge for professionals in the "compliance" area should cover public and private auditing, internal and external auditing, preventive or home visit, customs, post-clearance, legal, criminal, operational, financial, internal control, and management of company policies.

Countries have been consolidating a regulatory model to ensure that this relationship remains stable, and each party fulfils its task. This model focuses mainly on the liability of legal persons, in such a way that if previously only natural persons were criminally imputable, now companies will be as well. As Sanclemente, (2020) points out, this adoption of regulation models and the transfer of sanctioning powers to administrative management institutions corresponds to an international trend. The bibliometric analysis shows all movements made in question to research these issues at this level, so that research in the field will show considerable support for establishing internal policies in the countries to achieve this regulation. The establishment of these policies will guarantee

compliance with the obligations that companies have, so they must join the compliance culture considering the risks of incurring criminal liability.

Therefore, because of the bibliometric findings of this study, it can be pointed out in this discussion that the compliance review programs specific to the audit in foreign trade will function in two aspects:

1. Serve as support to the programs aimed at "Due Diligence" and "Compliance", so they should be focused on evaluating risk and on organizational control, supervision, and surveillance at the headquarters of the corporations and in the operational routes of the countries involved.
2. The scope of the programs will depend on the nature, size, and activity of each company. However, it is essential to note that they must have preventive and control effectiveness internally and externally to represent virtuous circles of regulatory compliance in legal relationships and criminal risks that arise within organizations.

5. CONCLUSIONS

The purpose of the present work was to carry out a bibliometric analysis that allows knowing the trends and flow of information concerning customs audit issues up to the present time. The results obtained through this study have practical implications in business and government areas. Therefore, these implications provide the knowledge so that government authorities and businesspeople immersed in economic, financial, legal, environmental conditions can have access to legal and technical mechanisms for regulatory compliance, given that the volume and complexity of the economic and commercial relations and current regulations are no longer the exclusive patrimonies of

the regulated sectors.

In recent decades, given the phenomena and acts that we have witnessed, the appearance of new technological, environmental, commercial, and regional risks, among others, has been observed. Around these changes, it has been possible to observe the deployment of criminal activities that generate risks to economic activities. Due to these changes, some legal provisions have been established that affect business activities and government activity.

On the one hand, the increase in the complexity of the rules comes first. Nevertheless, on the other hand, these standards traditionally have two perspectives: hard-law and soft-law. Hard law is distinguished as an assessment instrument very attached to the institutional. Due to this, it is related to international negotiations, corporate and tax laws, and the laws, rules and regulations issued by States or institutions public bodies through their parliamentary structures and/or legislative powers. The second perspective has to do with soft law, which is a regulation that is not mandatory and therefore cannot be required by the authorities. Private organizations and institutions issue these regulations more attached to the market, industry, or commerce. Its operation is through self-regulation or best corporate practices. However, they can be regulated through the *Lex Mercatoria* (Trade Law) issued by international organizations such as the International Chamber of Commerce CCI and economic criminal law.

On the other hand, given the processes of globalization of the economy, organizations must manage Due Diligence and Compliance with all these regulatory provisions in the different jurisdictions where they operate. The results of the bibliometric analysis are related to previous ideas and concerns. As already mentioned, the bibliometric study allows us to glimpse the increase in the interest

of these topics in a growing number of journals today. In addition, it allows knowing the regions of the world that are involved in these ideological currents, therefore, seeking institutional collaboration. A complementary vision of this type of study allows us to observe the geographical and political areas that maintain interest in developing new knowledge in the area. In this study, it can be observed that the current commercial powers show the most interest in related issues. Considering the keywords identified by bibliometric mechanisms in international auditing, the idea is consolidated that they are related to the fears and interests mentioned in previous sections. These terms refer to conservation, standards and risk, governance, administration/direction, productivity, and others such as performance, laws, politics, companies or developing countries. Those first keywords are the ones most present today, reaffirming the priority for the audit activities.

The most advanced techniques of bibliometrics, mainly those related to an association (cluster and network techniques), allowed this study to encapsulate some keywords related very strongly to current political, economic, and commercial issues. Some of these keywords are legitimacy, risk, governance, China, food, health, crisis, cooperation, political committees and liberation, governance, competition, and productivity. Another set of keywords associated topics related to institutions and their design allows observing the commitment of companies and government institutions towards international commitments, dispute resolution, laws, and agreements, which in turn is related to performance, companies, trade, risk, and standards. These bibliometric techniques allow identifying the existence of a relationship between various topics to indicate the flow of knowledge about the advances taking place in these matters. These findings rep-

resent a challenge in political management and human capital formation; Therefore, in academic terms, it formalizes the question, what professionals have the means and knowledge necessary to take the leading role in the new trends that international trade auditing follows? As a result of the findings of this research work, the idea is conceived that professionals in areas such as Accounting, Administration, Foreign Trade or in Economic and Legal Sciences could become the Compliance Officer or Regulatory Compliance Officer. As noted above, this response faces a scenario of significant academic and commercial challenges and opportunities. That means that both academics and professionals in the area will develop new understanding, comprehension and distribution of knowledge and skills. At the same time, they must develop techniques with a qualitative and quantitative basis to respond to the problems and challenges posed by these new configurations, not only in the field of public and private organizations.

Based on the findings of this study, regulatory trends are the result of the risks involved in the flow of international trade. These risks can be studied from various areas such as environmental, economic, financial, legal, political, cultural, social, and technological. These economic, political, and social phenomena are just beginning to be seen in most developing countries, while it is already a reality for developed countries with broad access to international trade. The SARS-CoV-2 pandemic and its variants have accelerated these manifestations in recent years, although they are now widely observed in the countries most exposed to international trade. As predicted by the gravity model of international trade (Krugman, Obstfeld, and Melitz 2012, 12), it is evident in the figures of networks and clusters presented in this research, where countries such as the USA that have, a greater specific weight are linked to other coun-

tries of large commercial size even if they are not so close geographically. In addition to establishing trade relations with nations such as the United Kingdom and Australia or Brazil, it establishes relations with China. It is logical to think about establishing these relations due to China's commercial importance today. These geographic relationships allow establishing a conclusion for this research. The flow of the information and knowledge about Due Diligence, Compliance and norms for auditing in international trade must continue consolidating in the developing countries in both the commercial sphere and in the regulation, control, and monitoring mechanisms. In addition, developing countries must encourage policies to endorse the commercial integration process if they want to be equated with more developed nations.

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