

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

---

2-21-2021

## Bibliometric Analysis of Articles on Accounting and Covid-19 during the Pandemic

irman firmansyah

*Siliwangi University*, irmanfirmansyah@unsil.ac.id

aam slamet rusydiana

*SMART Indonesia*, aamsmart@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Accounting Commons](#), and the [Library and Information Science Commons](#)

---

firmansyah, irman and rusydiana, aam slamet, "Bibliometric Analysis of Articles on Accounting and Covid-19 during the Pandemic" (2021). *Library Philosophy and Practice (e-journal)*. 5179.

<https://digitalcommons.unl.edu/libphilprac/5179>

# **Bibliometric Analysis of Articles on Accounting and Covid-19 during the Pandemic**

Irman Firmansyah<sup>1</sup>, Aam Slamet Rusydiana<sup>2</sup>

<sup>1</sup>Faculty of Economics and Business, Siliwangi University, email: irmanfirmansyah@unsil.ac.id

<sup>2</sup>SMART Indonesia, email: aamsmart@gmail.com

## **Abstract**

*This study aims to investigate articles with the theme of accounting and covid-19 published during the pandemic and indexed by Dimension (<https://dimension.ai>) with a focus on an analysis of journals, articles, and keywords. The articles analyzed were as many as 150 documents using bibliometric analysis with the help of R Biblioshiny software. The results showed that from several journals that published articles on the theme of accounting and covid-19, the themes discussed were not only focused on accounting but themes extended to other themes such as environment, science, energy, and health. The journal that publishes this theme the most frequently is the Journal of Accounting and Organizational Change, with the most searched keyword being 'covid-19' followed by 'accounting'. The affiliates that often conduct research are the University of Florence followed by Shanghai University and Kanazawa Medical University. Besides, the country with the most articles cited is Switzerland.*

Keywords: *accounting, covid-19, bibliometric, R*

## **INTRODUCTION**

The COVID-19 pandemic is growing rapidly in 2020 with a significant number of infections. Actions taken to prevent the spread of the virus have affected economic activity, which in turn has an impact on financial reporting. Previous studies have shown that environmental factors, namely economics, politics, law, culture, and religion have a considerable influence on the development of a country's accounting practices (for example Adhikari & Tondkar, 1992; Fechner & Kilgore, 1994; Jaggi & Low, 2000; McKernan & Kosmala, 2007)

While safety and health threats must come first, economic problems soon follow, as we all seek to minimize the impact on the economy and business. Companies face a great deal of ignorance regarding the ability to continue important operations, generate income, manage contractual obligations, gain access to capital and credit, and available business disruptions and other insurance protections (FTI, 2020).

After the Covid-19 pandemic outbreak spread throughout the world, there are no economies left in the whole world unless declared negatively affected by this virus. Correspondingly, many economic units, especially industry, are affected in various sectors around the world. Steps being taken by many countries to reduce the spread of Covid-19 continue to emerge, and the most prominent sector which has taken most of its impact is the transportation sector, followed by the tourism sector which includes the hotel sector, forcing many countries to stop activities recreation and gatherings. Thus, the significant impact of the Covid-19 pandemic is reflected in the financial reports prepared by the economic unit, of

course. According to International Accounting Standards, in terms of the need to disclose the negative effects of this pandemic, and whether these impacts are substantial, and that it occurred before the end of last year and the publication of financial statements, according to IAS 10 of the International Accounting Standards, economic units are required to disclose in the Clause of Clarification events after the financial statement preparation period for every possible future impact as a result of the Covid-19 outbreak. As a fundamental influence on financial statements, the most prominent of these effects is the potential risk with difficult impacts. (Al-Masoodi, et al, 2020). This has caused the spread of the Corona pandemic to have a significant impact on the financial statements of various economic units around the world starting in the first quarter of 2020, and the most prominent of these effects are changes in people's income or economic units, and resulting in an impact on the asset value of economic units. inventory, for example, is experiencing a decline in value due to decreased and stagnant sales. (Al-Masoodi, et al, 2020).

Because the Covid-19 outbreak has caused a deterioration in the financial situation that was so severe that it occurred after the date of financial reporting that the basis for preparing a going concern was no longer considered appropriate, financial reports (or interim reporting) needed to be adjusted. This will require the application of general measurements, recognition, and disclosure requirements, with particular attention paid to the requirements for assets held for sale, classification of corporate debt and equity instruments, testing for impairment, and recognition and measurement of provisions. (KPMG, 2020). According to FTI (2020), several things that could potentially be impacted by Covid-19 are a decline in assets, fair value measurement, hedge accounting, modification of debt and loan agreements, revenue recognition, insurance recovery, bankruptcy and restructuring, and disclosure of financial statements.

Al-Masoodi, et al, (2020) highlighted several aspects that need to be considered related to the impact of Covid-19 on accounting, namely (1) Financial reports, (2) Continuity, (3) Financial Instruments, (4) Impairment of Asset Value (5) ) Lease Contracts, (6) Measuring Fair Value, (7) Evaluating Corona Incidents After the Reporting Period, and (8) Fixed Costs and Coverage of Problems during the Covid-19 Pandemic.

Meanwhile, in an article published by PWC (2020), it is explained that the coronavirus has been responded to quickly by European governments, especially about social and economic conditions. These actions include a drastic increase in public sector spending, largely in favor of the private sector. In the end, it becomes a challenge that the funds issued by the government are appropriate. This shows that Covid-19 has also had an impact on government accounting because the government needs quality information for the policies taken.

Therefore, the many aspects that are affected by Covid-19 have led to the importance of careful preparation in preparing financial reports as a provider of reliable and accurate accounting information that will support economic decisions to be taken by an entity and ultimately support decisions at the national economic level. (Al-Masoodi, et al, 2020) and must be by IFRS accounting standards.

According to Tokar (2020) in a panel discussion at the IFRS Foundation Virtual Conference which was held on September 28, 2020, he explained that in preparing financial reports with IFRS standards in 2020 due to the impact of covid-19, there are several important principles to consider, namely (1) users financial statements expect entities to base their

estimates in the financial statements on assumptions that are consistent with management's expectations of the business performance and operating environment at the reporting date, (2) these assumptions should be developed using reasonable and substantiated information available to management, and (3) users expect transparency in the main assumptions used. Entities must provide unbiased and clear information about key assumptions. Therefore, the covid-19 pandemic is the first problem and financial reporting, especially interim. IAS 34 Interim Reporting requires entities to disclose significant changes in assumptions and the effect of changes in financial statements compared to those reported in the previous annual period.

The number of impacts felt by entities due to the Covid-19 pandemic on accounting, so many authors immediately examine Covid-19 issues in corporate financial reporting. So that in 2020 and 2021 there have been many articles published on this theme. Based on this, this study aims to see a map of research results in the world regarding the impact of Covid-19 on accounting.

## **METHODOLOGY**

Bibliometric mapping is a research topic in the bibliometric field (Borner et al., 2003). Two bibliometric aspects that can be distinguished are the construction of the bibliometric map and the graphical representation of the map. In the bibliometric literature, the greatest concern has been with the construction of bibliometric maps. Research related to the effect of differences on size similarity (Ahlgren et al., 2003), and they were tested by different mapping techniques (Boyack et al., 2005).

The graphical representation of the bibliometric received less attention. Although some researchers seriously study problems related to graphic representation (Chen, 2003). Most of the articles published in the bibliometric literature rely on simple graphical representations provided by computer programs. This study uses publication data in the form of papers sourced from various scientific journals and other sources with the theme of accounting and covid-19 research on economic and business research. From the search results, 150 published articles were obtained

## **FINDING**

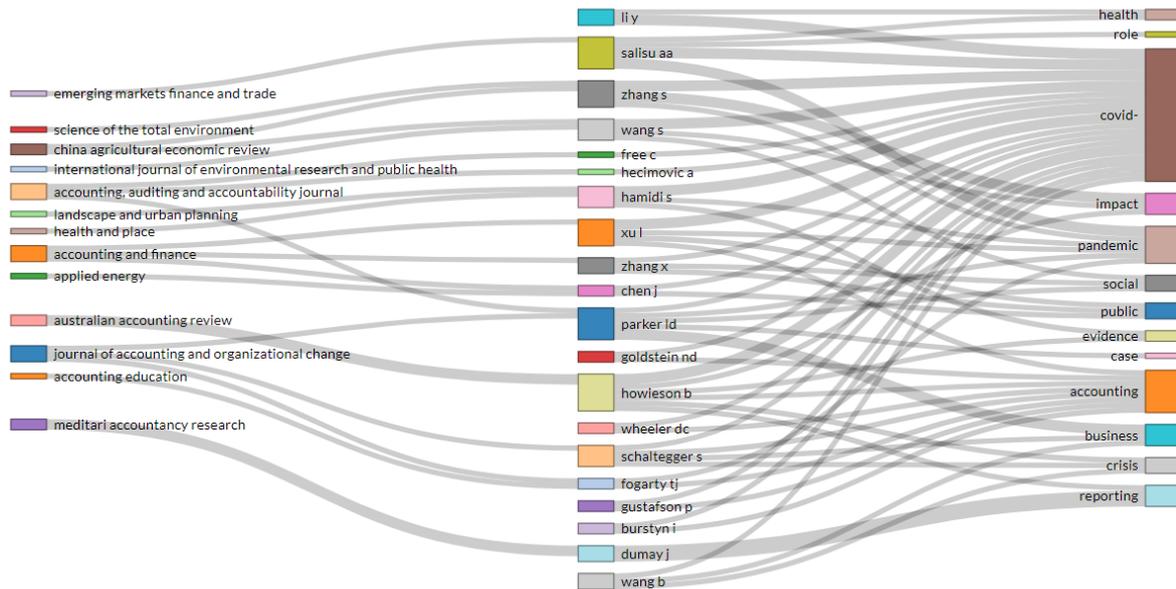
The following is a table showing a collection of documents used in research with the theme of accounting and covid-19 in economic and business research. The number of documents used is 150 which are divided into 5 types of documents, including journal articles (136 documents), conference papers (3 documents), editorials (2 documents), reviews (8 documents), and short surveys (1 document).

Table 1. Source Document

<b>No</b>	<b>Document Types</b>	<b>Number of Articles</b>
1	Journal article	136
2	Conference paper	3
3	Editorial	2

4	Review	8
5	Short survey	1
	<b>TOTAL</b>	150

### Three Fields Plot



**Figure 1: Three Fields Plot on Accounting and Covid-19**

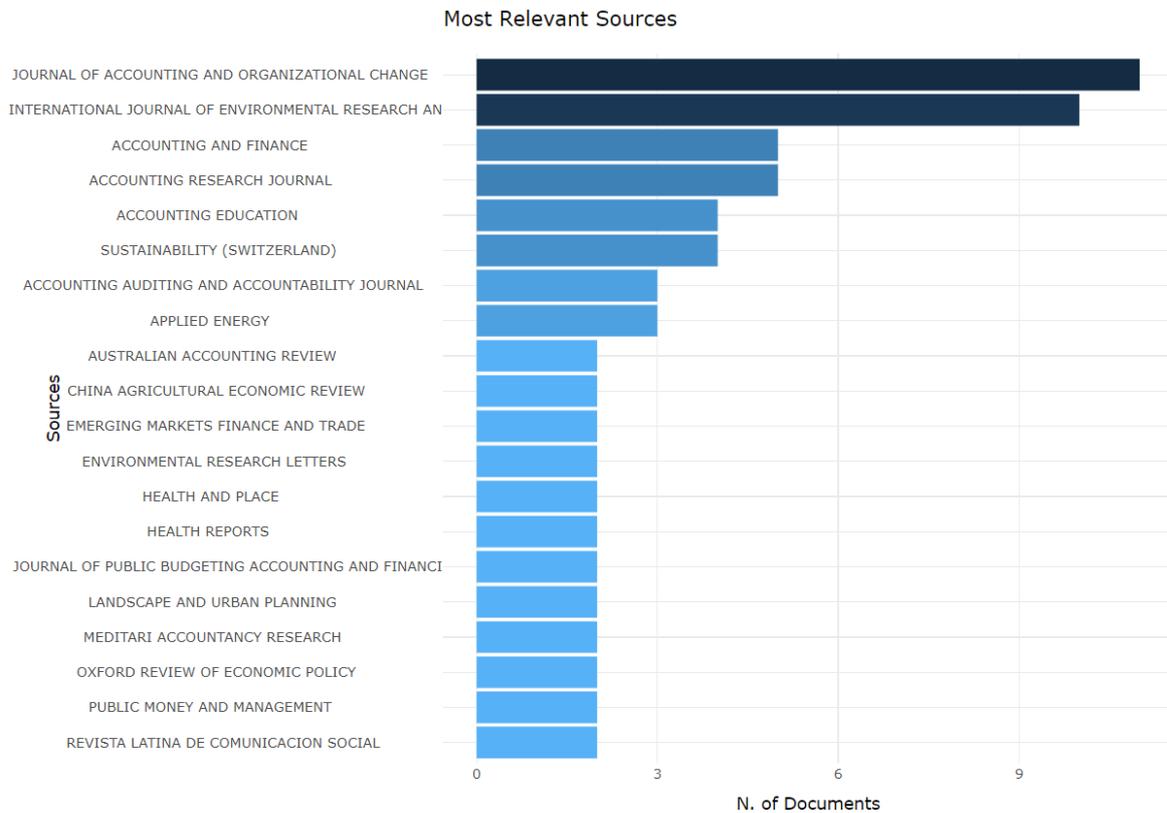
The three fields plot figure above illustrates three important elements in this research, namely the name of the journal/publication, the name of the author, and the theme used. The three of them are connected by a gray line which explains that there is a relationship between the three. On the left are the names of journals that publish themes on accounting that explain the impact of covid-19, then in the middle are the names of the authors and on the right are the themes/topics that often appear when the author is researching accounting and covid-19.

Based on the picture above, on the left, it is known that 13 journals publish the theme of accounting and covid-19, and the most published journals are "Accounting, Auditing, and Accountability Journal", "Accounting and Finance", and "Journal of Accounting. and Organizational Change ". Then the three journals are linked with their authors, in the journal "Accounting, Auditing, and Accountability Journal" there are 3 connected authors, namely Free C, Kevimovic A, and Parker Id, then in the journal "Accounting and Finance" they are linked with 3 authors, namely Xu I, Zang X, and Chen J. While the journal "Journal of Accounting and Organizational Change" is linked with 3 authors, namely Parker Id, Schaltegger S, and Fogarty Tj.

Furthermore, in the middle section, namely the author's name, 20 authors write on the theme of accounting and covid-19. However, only three people wrote the theme, namely Howieson B, followed by Salisu AA and Parker Id. Howieson B wrote most of the most diverse themes, not only accounting and covid-19, but also other themes, namely impact, evidence,

crisis, and reporting. On the far right are the themes that have sprung up in accounting and covid-19 research. We can see that there are 13 words that appear and the most frequent words are "covid-19", followed by "accounting", and "pandemic".

### Most Relevant Source

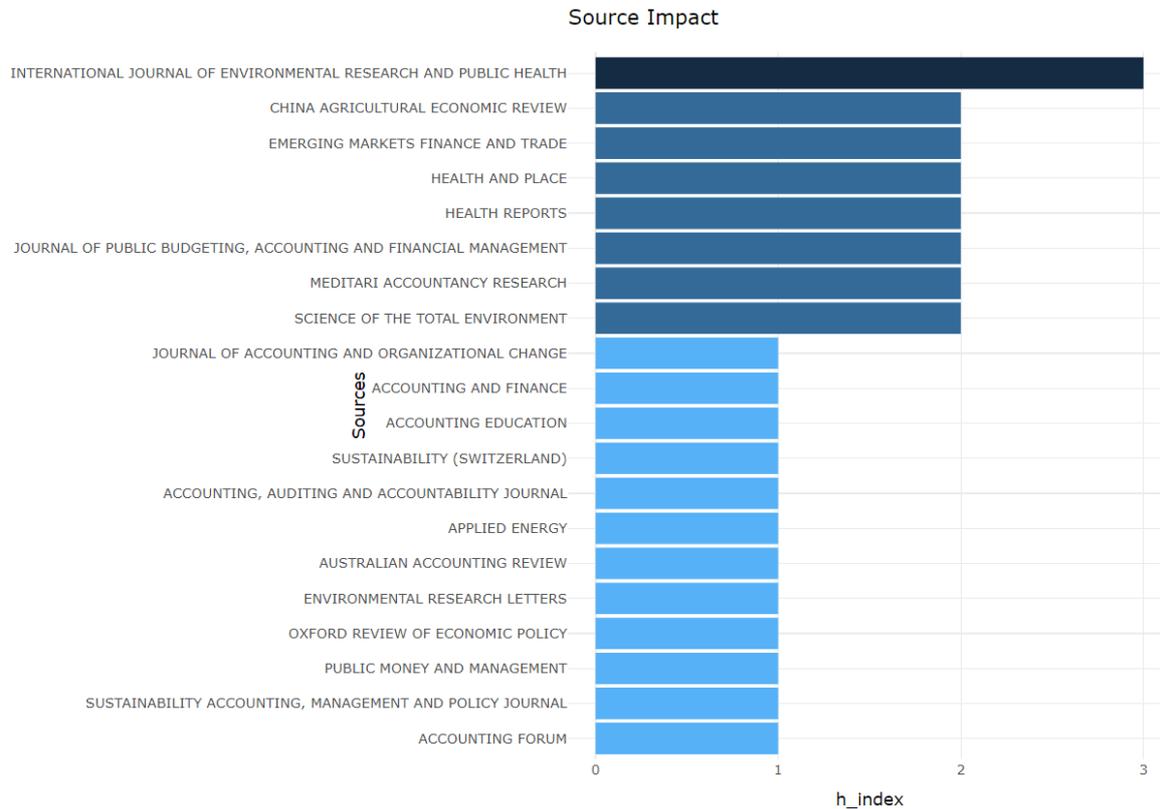


**Figure 2. Most Relevant Source on Accounting and Covid-19**

In this study, we can find out the most relevant and most relevant journals for publishing articles on the theme of accounting and covid-19. The number of articles published on the theme of accounting and covid-19 will cause the journal to be sought after by readers and other researchers who want to know about the relationship between accounting and covid-19 conditions. Therefore, we can see which journals publish the most on this theme.

The picture above explains that there are 20 journals with the most published order, from the top one in dark blue to the bottom in light blue. The journals that publish the most articles on the theme of accounting and covid-19 are only 2, namely "Journal of Accounting and Organizational Change" by publishing 11 articles, followed by "International Journal of Environmental Research and Public Health" which publishes 10 articles

### Source Impact

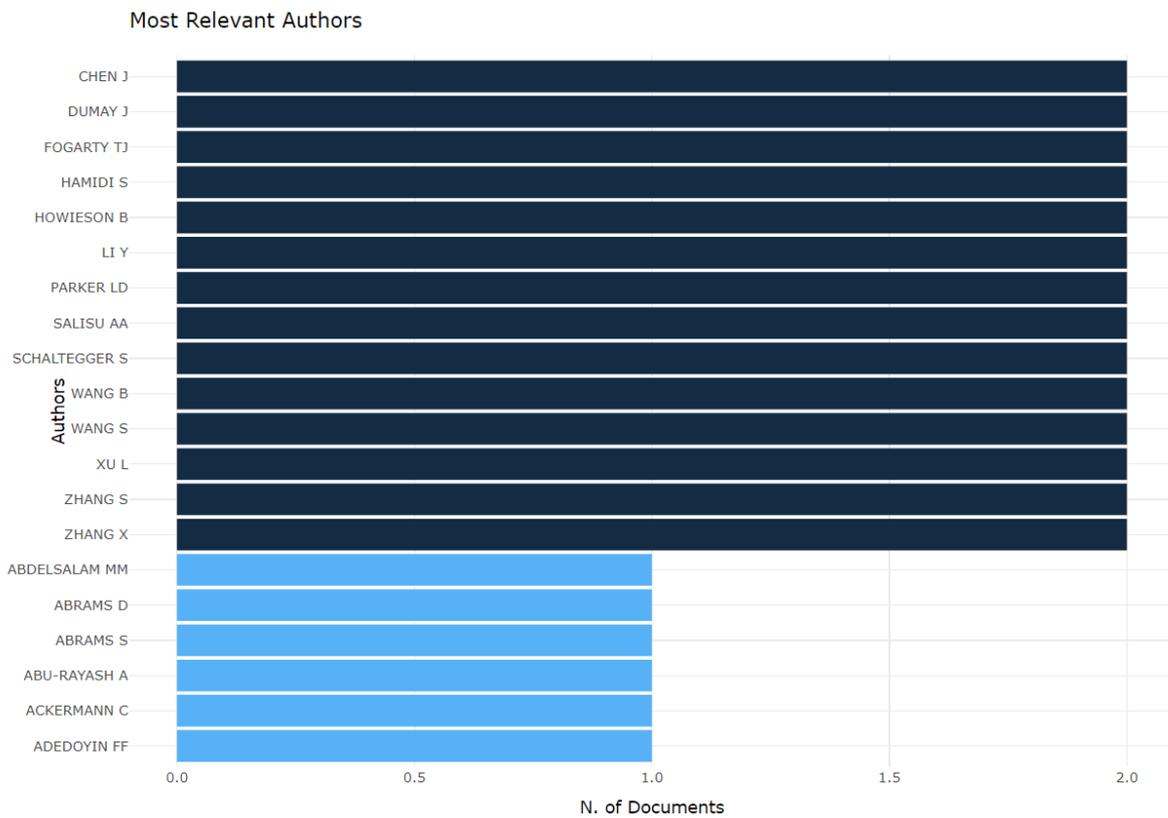


**Figure 3. Source Impact on Accounting and Covid-19**

Not only based on the number and relevance to the theme of accounting and covid-19, but this study also looks at the impact of each journal on the articles it publishes. The impact can be seen from the amount of h\_index obtained by each journal. You can also look from the longest stem with the darkest blue color. The bluer the color is, the more impact the journal will have.

From the picture above, it can be seen that there is only 1 journal with the highest impact, namely "International Journal of Environmental Research and Public Health" with h\_index 3. Then 7 journals have h\_index 2, namely "China Agricultural Economic Review", "Emerging Market Finance and Trade", "Health and Place", "Health Report", "Journal of Public Budgeting, Accounting and Financial Management", "Meditari Accountancy Research", and "Science of the Total Environmental".

### **Most Relevant Author**

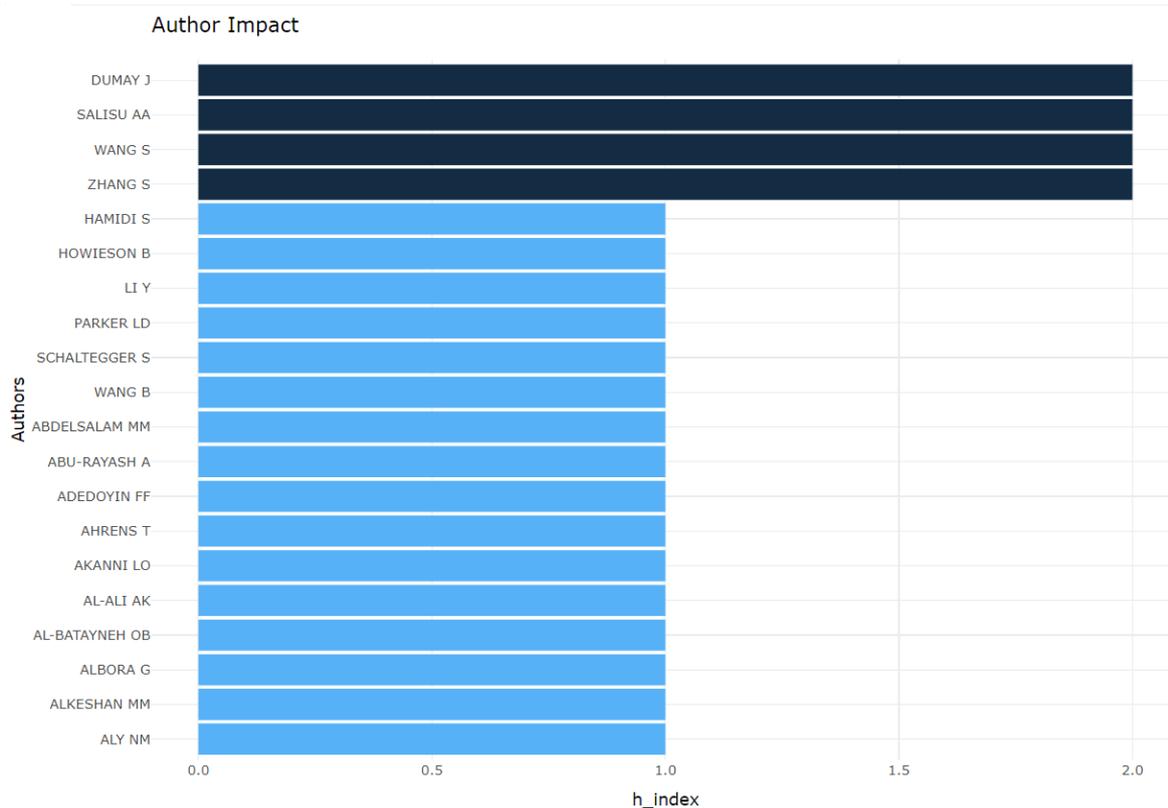


**Figure 4. Most Relevant Author on Accounting and Covid-19**

The picture above shows the relevance of the authors to the themes studied, namely regarding accounting and covid-19. The number of documents will be a measure in assessing the author's productivity in producing articles related to the theme under study. 20 authors are most relevant to the theme studied. The image above shows a bar chart with two colors, namely dark blue depicting the authors who write the most on accounting and covid-19 themes, while the light blue one is positioned below it.

We can see that 14 authors write the most and are relevant to the theme of accounting and covid-19, namely Chen J, Dumay J, Fogarty TJ, Hamidi S, Howieson B, Li Y, Parker LD, Salisu AA, Schaltegger S, Wang B, Wang S, Xu L, Zhang S, and Zhang X with the number of articles each was 2 documents.

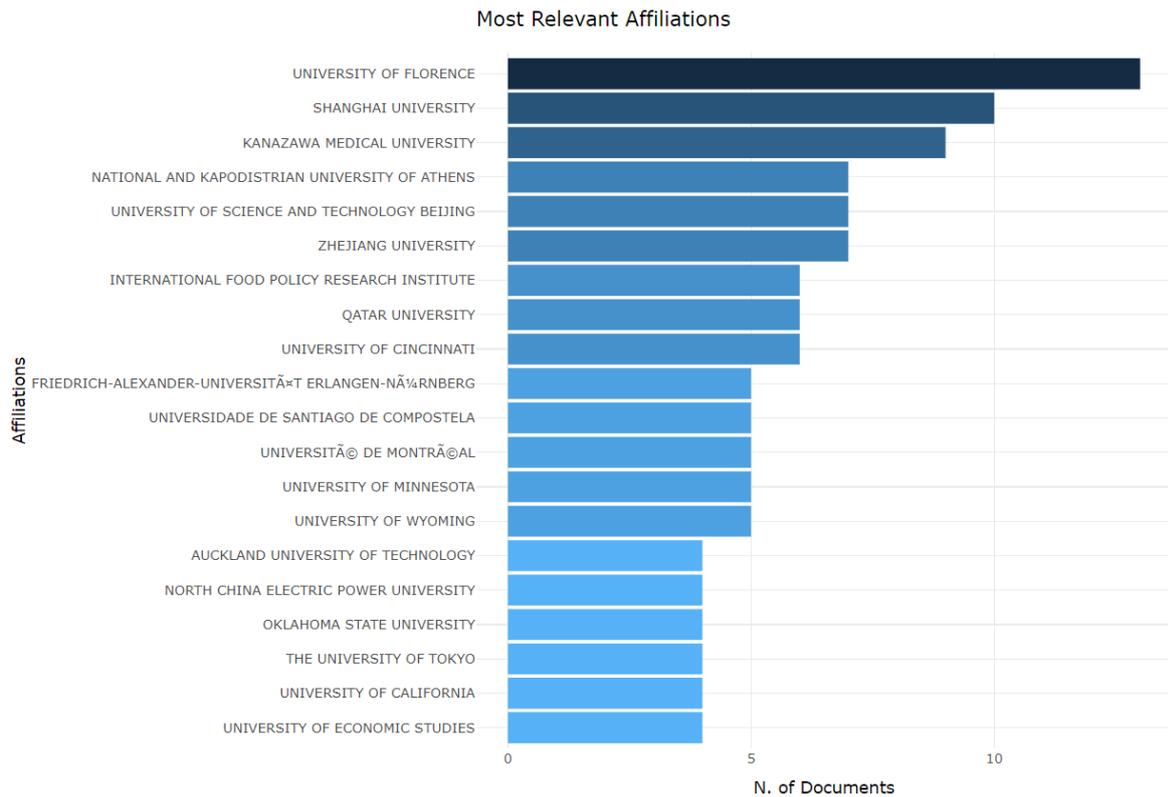
### **Author Impact**



**Figure 5. Author Impact on Accounting and Covid-19**

Many authors who publish articles on the theme of accounting and covid-19 have had an impact. Author impact can be seen from the h\_index of each author so that the quantity and quality of current articles will be illustrated. From the picture above, you can see the h\_index range between 0 and 2. There are 2 color groups, namely light blue and dark blue. Light blue has h\_index 1 and dark blue has h\_index 2. Writers who have h\_index 2 are marked with a long and dark blue diagram, 4 people are consisting of Dumay J, Salisu AA, Wang S, and Zhang S. While the rest are 16 people. has h\_index 1.

### Most Relevant Affiliations

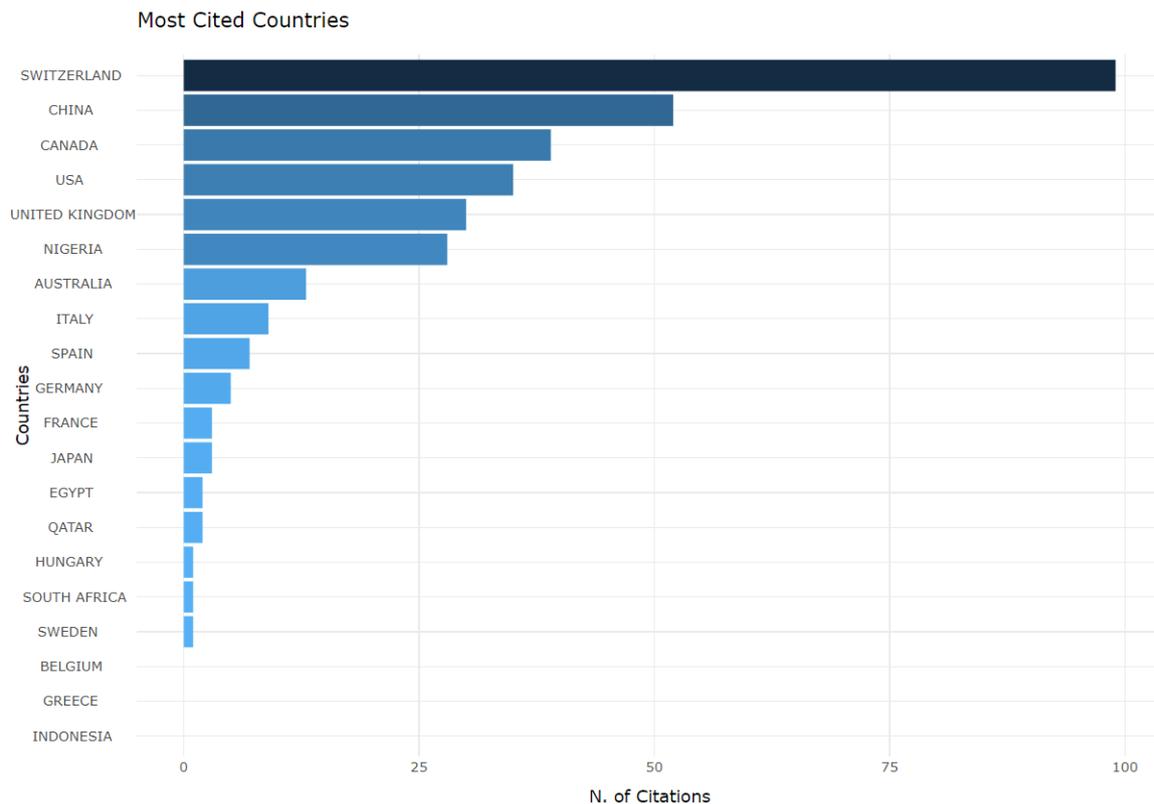


**Figure 6. Most Relevant Affiliations on Accounting and Covid-19**

The figure above shows that there are 20 affiliates who most often publish articles on the theme of accounting and covid-19. The largest order can be seen from the length of the bars on the chart and it can also be from the color shown. The dark blue color is the most published articles, while light blue color is the least published articles on accounting and covid-19 themes.

The University of Florence is the most affiliated with publishing articles relevant to the theme of accounting and covid-19, with 13 articles, followed by Shanghai University with 10 articles, and Kanazawa Medical University with 9 articles. The three of them are university affiliates that are the most consistent in publishing articles on the theme of accounting and covid-19.

### Most Cited Countries



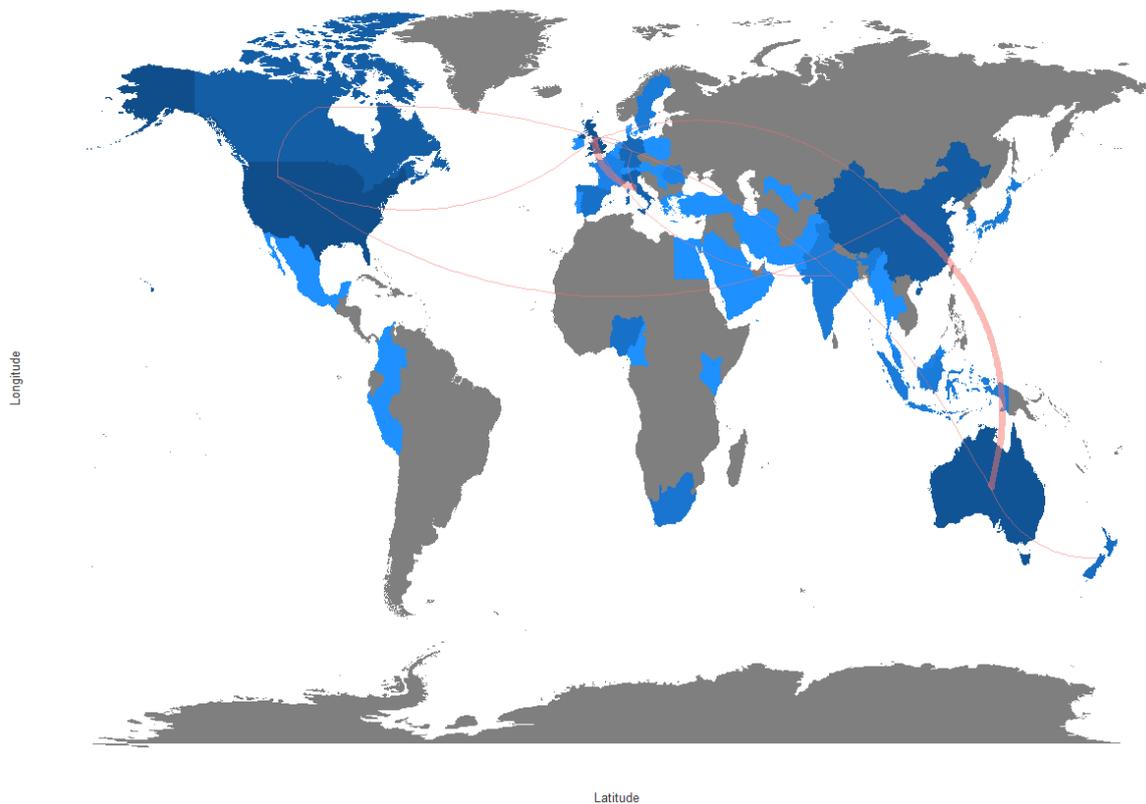
**Figure 7. Most Cited Countries on Accounting Covid-19**

The figure above shows the 20 countries that are the most cited from articles published on accounting and covid-19. This analysis does not describe the number of articles published but only limited to the number of citations of the published articles. The top sequence dark blue is the most cited, while the bottom and light blue are the least cited.

This study found that Switzerland was the country most cited by researchers in the world on the theme of accounting and covid-19, nearly 100 times. Then the second largest is China, which is more than 50 times, followed by Canada, USA, United Kingdom, and Nigeria.

### Country Collaboration Map

## Country Collaboration Map



**Figure 8. Country Collaboration Map on Accounting and Covid-19**

To see research collaboration between countries on the theme of accounting and covid-19, you can see the “Country Collaboration Map” image by looking at the pink line connecting between countries. The thick pink line represents the most collaboration among countries. Meanwhile, the country map in dark blue is the most written on the theme. From the picture above, we can see that the most collaborations were carried out by China and Australia, as well as by Italy and the United Kingdom.

## **FINDING**

This study describes the results of a bibliometric analysis using the R Biblioshiny from various sources of research publications consisting of journal articles, conference papers, editorials, reviews, and short surveys with digital object identifiers equipped with accounting and covid-19 themes indexed by the dimension.ai database.

Research with the theme of accounting and covid-19 is research with new themes, especially in 2020 and 2021 in line with the conditions of the Covid-19 pandemic that hit the world so that it directly affects world economic conditions. Of course, accounting plays a very important role in reporting the financial condition of a company as a result of the Covid-19 pandemic. Researchers also did not remain silent, they continued to research financial reports throughout 2020 and 2021 to find the impact caused by the Covid-19 pandemic. As a result, we found as many as 150 articles relevant to the theme of accounting and covid-19 published in 2020 and 2021. This is in line with calls from accounting academics to immediately conduct

special research related to the spread of covid-19 (Grossi, Ho, & Joyce, 2020; Leoni et al., 2020; The Accountability Institute, 2020; University of São Paulo, 2020).

Based on the data obtained, the 12 most productive journals publish articles on the theme of accounting and covid-19. Uniquely, from these journals, not all journals are directly related to accounting, but some are related to the environment, science, energy, and also health. This is of course not without reason, considering that controlling the spread of the coronavirus is not only needed in the health sector but also to maintain the economic, financial and political situation (Al-Masoodi, et al, 2020).

The authors also spread not only in certain countries, for example in China, where the Covid-19 virus started but spread throughout the world. We can analyze this that Covid-19 is not choosing a particular country but has spread and has an impact on accounting in various countries.

In connection with the words that often appear on the theme of accounting and covid-19, the word that most often appears is the word "covid-19" which is of course the center of attention of researchers in the world that covid-19 is the most interesting word to research so that this word appears most often in the articles researched. Then the second word that appears most often is "accounting". These two words are certainly the keywords most relevant to the theme that discusses accounting and covid-19. Apart from that, many other words have sprung up on this theme so that it is widespread. For example, there are the words pandemic, business, public, social and others. Therefore, the interesting fact that these words show is that this research on the theme of accounting and covid-19 is quite extensive and covers a wide range of sectors because the popular words that appear are similar to each other. This shows the need to increase and expand research on the theme of accounting and covid-19 to other fields, for example in the fields of health, government, and others.

This is also evidenced by the variety of sources that publish articles on the theme of accounting and covid-19 which not only focus on accounting journals, but other journals have also published this theme. For example, the name of the journal that most frequently publishes this theme is the Journal of Accounting and Organizational Change, which has published 11 journals. This journal is very relevant to the theme of accounting. This is also supported by the impact it has of 3 and is the biggest impact among other journals that publish this theme.

However, there are journals whose relevance leads to health and published many articles, namely the International Journal of Environmental Research and Public Health, which published 10 articles. Even so, the majority of article sources are journals that are in line with accounting themes.

With regards to the productivity of authors who study the same themes regarding accounting and covid-19, the majority of authors have not done much of the same research. This is very understandable because the Covid-19 pandemic has only been running for 1 year, so the number of articles produced by the authors is not much. 14 writers are the most productive on this theme, with 2 articles produced during this pandemic. Of the 14 writers, there were 4 people with the greatest impact, namely Dumay J, Salisu AA, Wang S, and Zhang S who had h\_index 2. They have proven themselves to be productive writers and have a quality that many other writers cite. If you look at research opportunities, currently accounting research opportunities are increasingly wide open due to the existence of Covid-19, because Covid-19

has changed everyone's life including changing current business behavior so business people and accountants must introduce new technology in carrying out their work (Vetter, 2020).

Author affiliation data is obtained based on the top order of the most productive producing articles on accounting and covid-19. The University of Florence is a university from the continent of Europe located in Italy and the most productive writing on this theme and has managed to write 13 articles, followed by Shanghai University from China and Kanazawa Medical University from Japan, both of whom are from the Asian continent. Also, several other affiliates originating from the Americas indicate that this article on accounting and covid-19 has spread all over the world.

From the distribution of these articles, Switzerland is the country that has contributed the most in references to various other articles relevant to the theme of accounting and covid-19, nearly reaching 100 citations. Therefore, Switzerland is very instrumental in the progress of other researchers to produce articles on this theme. So that several countries in different continents such as China, Canada, USA, and other countries participated in producing similar articles.

Based on the data obtained, there is not much collaboration between countries on this theme. Only 4 countries collaborated the most, namely China and Australia and two other countries, namely Italy and the United Kingdom. Therefore, it is still necessary to collaborate among other countries to be able to add insight and the latest findings regarding the impact of Covid-19 on accounting in various countries. Because this pandemic has spread throughout the world, not only in China or surrounding countries, but several other countries including in the African region also need to be increased.

## **CONCLUSION**

Research with the theme of accounting and covid-19 is a new theme that has emerged from early 2020 along with the coronavirus pandemic. Accounting as a tool to report the company's financial condition also affects it because it has to make financial reports that describe the company's condition due to Covid-19. Therefore, many researchers immediately research to describe the development of financial reporting.

From several journals that published articles, the themes discussed were not only focused on accounting but extended to discussions about the environment, science, energy, and health. The journal that most frequently publishes this theme is the Journal of Accounting and Organizational Change. Meanwhile, the affiliates that often conduct research are the University of Florence followed by Shanghai University and Kanazawa Medical University. Besides, the country with the most articles cited is Switzerland.

## **REFERENCE**

Adhikari, Ajay & Tondkar, Rasoul H. (1992). Environmental Factors Influencing Accounting Disclosure Requirements of Global Stock Exchanges. *Journal of International Financial Management and Accounting*, 4(2), 75-105.

- Ahlgren, P., Jarneving, B., & Rousseau, R. (2003). Requirements for a cocitation similarity measure, with special reference to Pearson's correlation coefficient. *Journal of the American Society for Information Science and Technology*, 54(6), 550–560. <https://doi.org/10.1002/asi.10242>
- Al-Masoodi, Hayder Ali., Al-Kawaz, Salah Mahdi., & Abbas, Ali Abdulhassan. (2020). Accounting Readings During the Time of Covid-19. *International Journal of Multicultural and Multireligious Understanding*. 7(5), 158-166. <http://dx.doi.org/10.18415/ijmmu.v7i5.1673>
- Börner, K., Chen, C., & Boyack, K. W. (2003). Visualizing knowledge domains. *Annual Review of Information Science and Technology*, 37(1), 179–255. <https://doi.org/10.1002/aris.1440370106>
- Boyack, K. W., Klavans, R., & Börner, K. (2005). Mapping the backbone of science. *Scientometrics*, 64(3), 351–374. <https://doi.org/10.1007/s11192-005-0255-6>
- Chen, C. (2003). Mapping the mind. In *Mapping Scientific Frontiers: The Quest for Knowledge Visualization* (pp. 67–99). [https://doi.org/10.1007/978-1-4471-0051-5\\_3](https://doi.org/10.1007/978-1-4471-0051-5_3)
- Fechner, Harry H. E & Kilgore, Alan. (1994). The Influence of Cultural Factors on Accounting Practice. *The International Journal of Accounting*, 29, 265-277.
- FTI. (2020). COVID-19 Impacts on Accounting, Disclosures & Internal Controls <https://www.fticonsulting.com/~media/Files/us-files/insights/articles/2020/apr/covid-19-impacts-accounting-disclosures-internal-controls.pdf>
- Jaggi, Bikki & Low, Pek Yee. (2000). Impact of Culture, Market Forces and Legal System on Financial Disclosures. *The International journal of Accounting*. 35 (4), 495-519
- KPMG. (2020). Accounting Implications of the Coronavirus. March 2020. <https://home.kpmg/ch/en/blogs/home/posts/2020/03/accounting-implications-of-the-coronavirus.html>
- McKernan J. F. & Kosmala K. (2007). Doing the truth: religion – deconstruction – justice, and accounting. *Accounting, Auditing and Accountability Journal*. 20(5),729-64
- PWC. (2020). Government accounting, EPSAS and supporting the COVID-19 response. [https://ec.europa.eu/eurostat/documents/9101903/9700113/EPSAS\\_paper\\_on\\_Covid-19.pdf](https://ec.europa.eu/eurostat/documents/9101903/9700113/EPSAS_paper_on_Covid-19.pdf)
- Tokar, Mary. (2020). Applying IFRS Standards in 2020— impact of covid-19. IFRS Foundation Virtual Conference. <https://cdn.ifrs.org/-/media/feature/news/2020/inbrief-covid19-oct2020.pdf?la=en>