PUBLIC ACCOUNTING and SUSTAINABILITY

Mapping the Landscape of Accounting Education Quality Research: A Bibliometric Review

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Research aims: This study aims to map the literature on accounting education quality worldwide through bibliometric analysis..
Design/Methodology/Approach: Data were obtained from the Scopus database and then bibliometrically analyzed using Bibliometrix's R package, Biblioshiny. This analysis focused on studies on accounting education quality published in the form of English articles with the query used, namely TITLE-ABS-KEY (“accounting education" AND "quality") AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")). The research sample contained 142 scientific articles from 78 journals from 1983 to 2024.
Research findings: Based on the bibliometric analysis, the results of the study could map the literature on accounting education quality, which includes the most cited research trends, namely research on factors of students' intention to major in accounting and non-accounting science studied by Tan and Laswad (2006); Watty K became the most influential author; the most searched keyword is "accounting education"; the network of collaboration on accounting education quality remains minimal; and research topics have been mapped in four main themes (motor, niche, emerging or declining, basic). Future research themes in accounting can focus on curriculum development, the impact of technology, professional ethics, and the effectiveness of online/blended/hybrid learning, considering graduate work readiness and the quality of accounting education.
Theoretical contribution/Originality: This research guides other researchers in exploring potential topics on accounting education quality.
Practitioner/Policy implication: The results of this study can be used to identify the development of accounting education quality, become the basis for policies and initiatives that support the growth of international collaboration, and create opportunities for collaboration between researchers.
Research limitation/Implication: The limitation of this research is that it only analyzed articles published in the Scopus database.

Keywords
Accounting Education Quality; Bibliometric Analysis

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Introduction

One of the biggest challenges in achieving the Sustainable Development Goals (SDGs) is ensuring quality and inclusive access to education for all (Innovillage, 2022). Unequal quality of education and lack of access are barriers for individuals and communities to develop, hindering sustainable development goals, such as poverty alleviation, improved health, and gender equality. Existing educational disparities also impact social and economic inequities (Riyadi & Ghuzini, 2022). Marginalized groups, such as people experiencing poverty and minorities, often have more limited access to quality education (Nabilah & Darmaningrum, 2023). This creates a vicious cycle in which lack of education hinders economic and social opportunities, ultimately deepening inequities.

However, education also plays a crucial role in overcoming various problems and achieving SDGs (Bahtiar, 2023). When individuals have access to quality education, they can develop the skills and knowledge needed to participate in community building actively (Maula et al., 2023). Quality education can empower individuals to achieve a decent livelihood, maintain their health and the surrounding environment, and promote peace

and justice. Therefore, efforts to improve the quality and access to education must be a top priority in the sustainable development agenda, including accounting education.
Accounting education is a discipline that focuses on learning related to principles, methods, and skills in accounting. Accounting education is one of the topics explored in various studies (Nikolova, 2023). Research on accounting education is needed to respond to the challenges and changes that continue to grow in the accounting profession (Al Dulamy & Hamadi, 2022). Hence, accounting education plays an essential role in forming professionals in the accounting field by providing the knowledge, skills, and abilities required in the world of accounting professionals (Novak et al., 2022). The role of accounting education in shaping these professionals impacts industrial and economic development. The impact on industrial and economic growth is achieved by integrating industry and education (Nurhayati et al., 2023). To achieve all these things, quality accounting education is necessary.

On the other side, the quality of education is a relevant aspect of research as it significantly impacts various aspects of society (Yampol & Polandchuk, 2023). Research related to education quality can help identify factors and indicators of education quality that affect the ability of graduates (Nadtochiy et al., 2021). The skills and knowledge that an accounting graduate possesses depend on the quality of education he receives. In addition, the quality of education also has an impact on the readiness of graduates to face the professional world. The quality of education in accounting significantly impacts the success of graduates (Toan & Man, 2022). The quality of accounting education also affects the improvement of graduate performance in the industrial world (Khusaini & Mulya, 2021). Accounting graduates with superior performance can increase credibility and trust in the industrial world. This has a positive impact on the company or organization concerned.

The quality of accounting education is inseparable from the challenges and problems. One of the common challenges and problems faced in accounting education is related to the existing curriculum in accounting education, which can affect the role of accounting graduates in a professional environment (Toan & Man, 2022). Concerning curriculum, there still needs to be training for accounting graduates, especially concerning the skills and knowledge required and demanded by the accounting profession (Kassim, 2014). Moreover, pedagogical teaching should be changed to strengthen the learning process and improve the quality of accounting graduates. In addition, other accounting-related challenges are accountability, management, ethical behavior, and corporate governance, so attention needs to be paid to quality education and accountant training (Lubbe et al., 2020). Further, studies assert that there are changing trends or new needs in accounting education. Current education accounting is undergoing digital transformation, which requires accounting graduates to acquire complex knowledge, skills, and competencies related to the use of digital data, artificial intelligence (AI), and automation (Nikolova, 2023). This has led to the need to adapt traditional accounting systems in the face of pressure and an era of evolving technological competition. As such, changes in trends related to the quality of accounting education need to be explored further through bibliometric analysis.

Bibliometric analysis is a popular method used to analyze scientific data to measure the interconnectedness and impact of publications in educational research (Kurdish & Kurdish, 2021). Bibliometric analysis examines the number of publications, citations, and author networks (Aliusta, 2023). The bibliometric approach aims to provide insight into trends, patterns, and the impact of research in education, one of which is accounting education. It can help identify the main authors, institutions, and countries that contributed to the literature and the main subtopics and themes being researched. Using bibliometric analysis, researchers can comprehensively understand the existing literature, identify research gaps, and make informed decisions for future studies in accounting education (Cepêda et al., 2022). Bibliometric methods are also used to identify and analyze complexity and diversity in research in various fields. In health research, bibliometric analysis can help identify potential research areas to drive innovation and improve outcomes in medical care (Castillo, 2022).

Similarly, in the field of management, bibliometric analysis has been employed to identify leading works, analyze changes in knowledge structure, and highlight current research trends and gaps. Bibliometric analysis has also been used in accounting to examine the relationship between accounting and information systems/technology and determine the influence of information systems/technology development on accounting literature (Aliusta, 2023). Bibliometric methods are essential in identifying and analyzing complexity and diversity in research across multiple disciplines.

Based on the explanation above, research has yet to map the literature related to the quality of accounting education using a bibliometric approach. Research with this approach aims to map the literature related to the quality of accounting education. By evaluating existing research, it focuses on the following questions:

RQ_1: How has the trend of research on the quality of accounting education evolved?
RQ_2: Who is the most influential author in research on the quality of accounting education?
RQ_3: What keywords appear the most in the literature on the quality of accounting education?
RQ_4: What is the collaborative network between the authors and the institutions in the study?

Literature Review

Accounting Education Quality

Accounting education is part of economics, which has become a topic in various research studies. The quality of accounting education is essential to be studied, as it directly impacts the formation and development of future accounting professionals. Research related to accounting education often does not rank well in journal quality guidelines, which impacts the perception that accounting education research is of lower quality than research in other fields (Abdullahu & Vokshi, 2021). This is one of the causes of the quality of accounting education that is not optimal and needs to be improved. There are various ways or methods to improve the quality of accounting education. The study stated that the shift from teacher-centered learning to student-centered learning could improve the quality of accounting education (Jamiu & Yakubu, 2020). Another way to improve the quality of accounting education is by changing curriculum and pedagogy to develop high-quality human resources in accounting (Toan & Man, 2022). In addition, ethics education is important in accounting learning and contributes to improving the quality of accounting education (Shaharuddin et al., 2022). It indicates that improving the quality of accounting education is needed not only to answer the future needs of accounting professionals but also to become an important step in overcoming suboptimal perceptions of research in this field. Efforts to improve quality can involve implementing more student-focused learning methods, changes in curriculum and pedagogy, and an emphasis on ethics education. Thus, through these approaches, accounting education can become more responsive to industry demands and produce high-quality human resources in accounting.

Bibliometric Analysis

Bibliometrics was introduced by Pritchard, Nalimov, and Mulchencko around 1969 (Tupan et al., 2018). According to Glänzel (2003), bibliometrics has three parts, namely "*bibliometrics for bibliometricians, bibliometrics for scientific disciplines, and bibliometrics for science policy and management.*" The three bibliometric components have their definitions and benefits. Bibliometric methods generally provide quantitative analysis results from scientific publications (Wedhatama et al., 2021). This type of analysis is based on identifying some literature or publication within a particular subject area (Ellegaard & Wallin, 2015). Bibliometric analysis is a method used to evaluate and analyze scientific publications in a particular field that involves examining various aspects, such as growth patterns, authorship patterns, frequency of citations, types of publications, and productive sources (Nobanee et al., 2023). Bibliometric analysis is also a statistical method employed to measure and analyze scientific literature, including articles, books, and other publications, to identify research trends and map developments in various fields of science and technology

(Saputro et al., 2023). Bibliometric analysis identifies research gaps and potential future research directions by analyzing patterns and trends in scientific publications (Abdullah et al., 2023). It can be concluded that bibliometric analysis is a method used to analyze and identify scientific publications of a particular field, covering various aspects such as research trends, gaps and potential future research, frequency of citations, and all things related to the scientific publication. The bibliometric method as a way of analyzing scientific publications has begun to be used in all disciplines. This bibliometric analysis is considered suitable for comprehensive mapping of various fields of science. However, science mapping is complex and onerous since it consists of several steps and often requires many and varied software tools, not all of which are free software (Aria & Cuccurullo, 2017). In this case, R-studio is a free and flexible software that can be used as a tool in analyzing bibliometric studies. This tool is useful in constantly changing sciences such as bibliometrics (Aria & Cuccurullo, 2017).

Methodology

The data in this study was obtained from the Scopus database, which focused on publication maps on accounting education quality at the global level. The data retrieval involved filtering by limiting document types to only English articles. The data search queries used were TITLE-ABS-KEY ("accounting education" AND "quality") AND (LIMIT-TO (DOCTYPE, "ar") AND (LIMIT- TO (LANGUAGE, "English"). The stages of data collection are depicted in Figure 1.

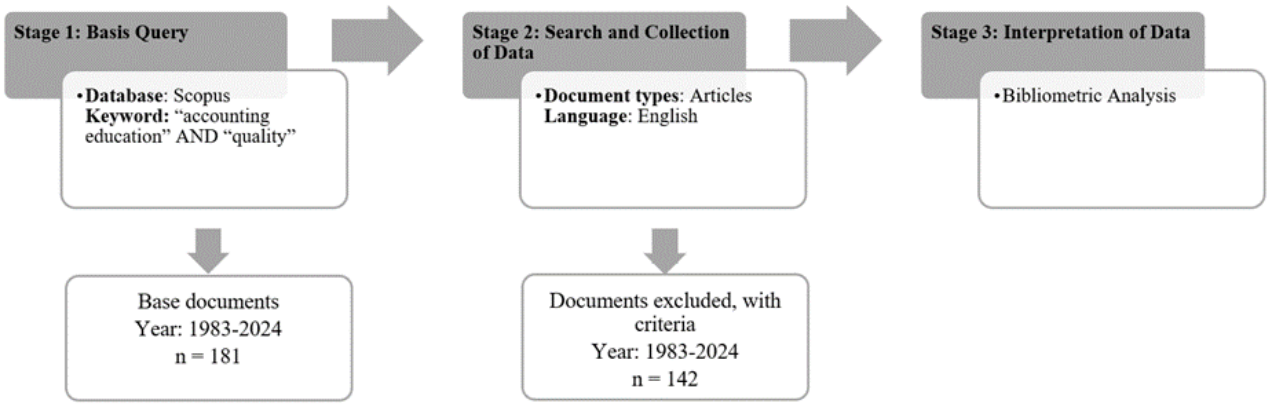

Figure 1 Data Collection Stages

After the data were successfully filtered, they were exported into *comma-separated values* (CSV) format. The R Bibliometrix (Biblioshiny) package then performed a more in-depth bibliometric analysis based on the exported data.

Results and Discussions

This bibliometric study was analyzed using RStudio software with data from the Scopus database. Data search used the queries TITLE-ABS-KEY ("accounting education" AND "quality") AND (LIMIT-TO (DOCTYPE, "ar") AND (LIMIT-TO (LANGUAGE, "English"). The data presented in this study included main information and research trends, most influential authors, most frequently occurring keywords, collaboration networks, and maps of future research topics.

Main Information and Research Trends of Accounting Education Quality

After carefully screening data retrieved from the Scopus database, 142 scientific documents in articles were obtained for analysis. Overall, bibliometric analysis data information is presented in Table 1.

Table 1 Main Information

Description	Results
Timespan	1983-2024
Sources (Journals)	78
Documents (Articles)	142
Annual Growth Rate %	-1.68
Document Average Age	11.5
Average citations per doc	13.94
References	6199
Keywords Plus (EN)	23
Author's Keywords (DE)	445
Authors	329
Authors of single-authored docs	32
Single-authored docs	36
Co-Authors per Doc	2.5
International co-authorships %	13.38

Based on Table 1, it was found that the earliest registered study on accounting education quality was from 1983, while some studies have already been published in 2024 (current year). This means that the results of this analysis captured publication information that is approximately 41 years old. However, the number of publications on accounting education quality is insignificant, considering the relatively long period. This is evidenced by the annual growth rate of -1.68%. This figure implies an average decrease in the quantity of scientific literature per year related to aspects of accounting education quality. The amount of scientific production each year is illustrated in Figure 2.

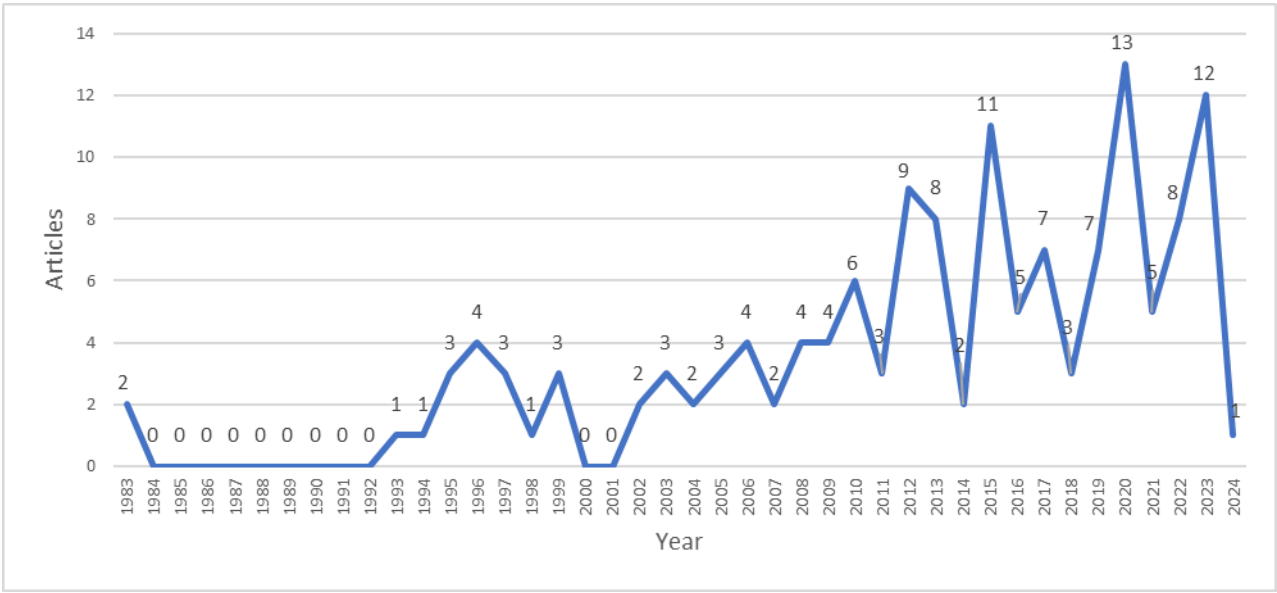

Figure 2 Annual Scientific Production

Figure 2 exhibits that publications related to accounting education quality fluctuate every year. The highest number of publications occurred in 2020, with 13 publications. In 2024, there is only one publication. However, it is still feasible to increase the quantity of publications, as it is in the current year. The existence of one publication in 2024 provides an opportunity for researchers to make further contributions and enrich the literature on accounting education quality.

In this context, the data also reflects strong collaboration among researchers. As seen in Table 1, 329 authors have contributed to the writing of scientific literature. The author used 6.199 references and 445 keywords as a reference for writing literature on accounting education quality. Most publications were written

collaboratively. This is shown because there are only 32 articles published by a single author. Next, research trends could be reviewed based on the most cited articles in Table 2.

Table 2 Most Global Cited Documents

Paper	Title	DOI	TC	TC per Year
Tan & Laswad (2006)	Students' beliefs, attitudes, and intentions to major in accounting	10.1080/09639280600787194	95	5.00
Wells et al. (2009)	Professional Skills and Capabilities of Accounting Graduates: The New Zealand Expectation Gap?	10.1080/09639280902719390	73	4.56
Hopper (2013)	Making accounting degrees fit for a university	10.1016/j.cpa.2012.07.001	64	5.33
Dillard & Tinker (1996)	Commodifying Business and Accounting Education: The Implications of Accreditation	10.1006/cpac.1996.0027	59	2.03
Watty (2006)	Want to Know About Quality in Higher Education? Ask an Academic	10.1080/13538320601051101	56	2.95
Allen (2004)	Business students' perception of the image of accounting	10.1108/02686900410517849	55	2.62
Sangster (2015)	You Cannot Judge a Book by Its Cover: The Problems with Journal Rankings	10.1080/09639284.2015.1055929	53	5.30
Hussain (2011)	Food for Thought on the ABS Academic Journal Quality Guide	10.1080/09639284.2011.596659	52	3.71
Solomon & Darby (2005)	Is private social, ethical, and environmental reporting mythicizing or demythologizing reality?	10.1016/j.accfor.2004.12.003	47	2.35
Volkov & Volkov (2015)	Teamwork Benefits in Tertiary Education: Student Perceptions that Lead to Best Practice Assessment Design	10.1108/ET-02-2013-0025	41	4.10

Table 2 reveals that the most cited research, with 95 citations, was conducted by Tan and Laswad (2006), who examined factors that influence students' intentions to major in accounting and non-accounting disciplines. One of the things highlighted in the study results is that university accounting majors in New Zealand have a positive perception of the quality of accounting education and the accounting profession. It indicates that the quality of accounting education can form a positive perception that affects students' intentions to study accounting disciplines. The following most cited research, with a total of 73 citations, was conducted by Wells et al. (2009). The research identified the skills considered most important for the success of accounting practice during the first years after graduation. It also identified the extent to which New Zealand universities focus on delivering quality courses. Their research highlights that personal and interpersonal emotional intelligence is more important than accounting professional skills. Then, the role of university programs in developing professional abilities in teamwork and providing real-world learning experiences is minimal, so it needs to be improved. Accounting education quality can be described through a balance between the university environment and the workplace to prepare and develop the professional abilities of accounting students. The subsequent most cited research, with 64 citations, is by Hopper (2013). The study investigated four areas related to accounting curriculum and pedagogics, accounting relations within universities and professional accounting institutions, expectations of accounting students, and accounting academics. The results of this study recommend that accounting academics fight against accounting degree lapses that mimic professional accounting courses. Meanwhile, research conducted by Sangster (2015) and Volkov and Volkov (2015) is the most recent study in the top ten most cited studies.

Most Influential Authors

In this section, the main contributors to research on accounting education quality are presented. Before presenting the author with the most publications, the author's publication output is presented first through Lotka's Law of Scientific Productivity in Figure 3.

Lotka's law is typically used to see if the majority of scientific production comes from a small number of authors or whether its distribution is more evenly distributed among many authors (Thottoli et al., 2022). Figure 3 exposes that the greater the number of authors (% of authors), the fewer the number of articles written (documents written). These results suggest that the contribution of scientific publications was not concentrated in a small number of authors but rather more evenly distributed among many authors. Then, from the perspective of publication sources (journals), it was found that only three journals are the core publishing sources on accounting education quality based on Bradford's Law. The three journals include Accounting Education, Journal of Accounting Education, and Issues in Accounting Education, which are visualized in Figure 4, and trends in the number of publications in these journals from year to year can be observed in Figure 5.

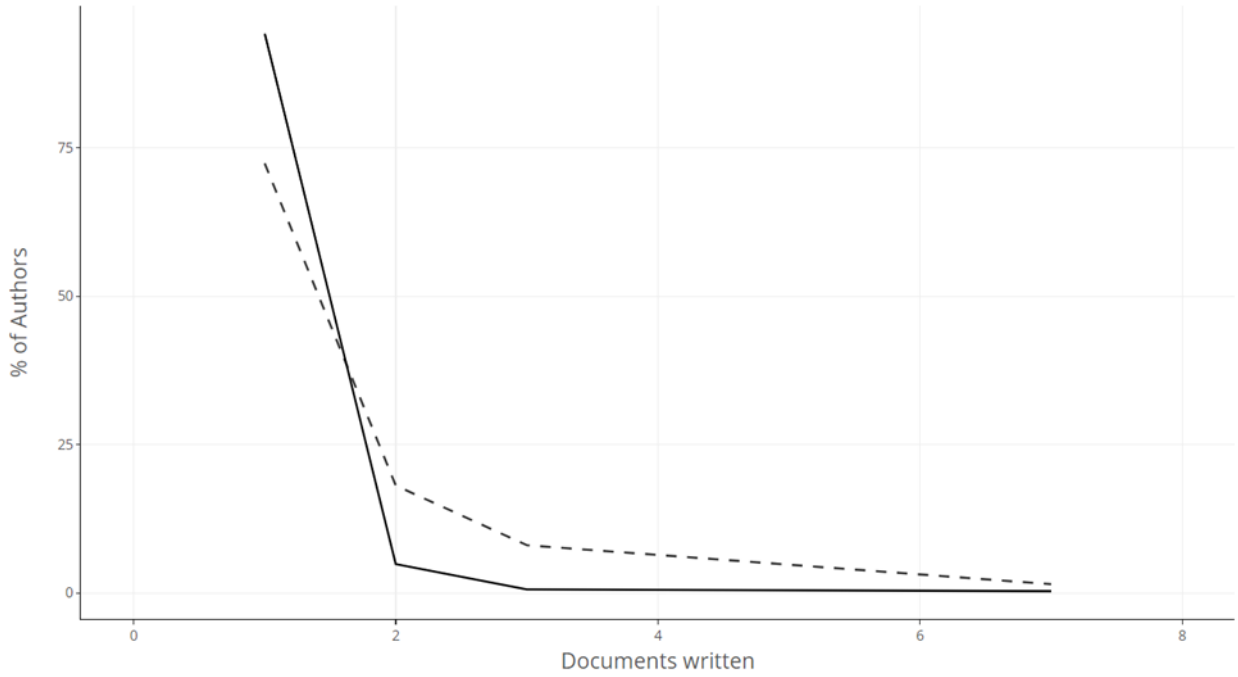

Figure 3 Lotka's Law

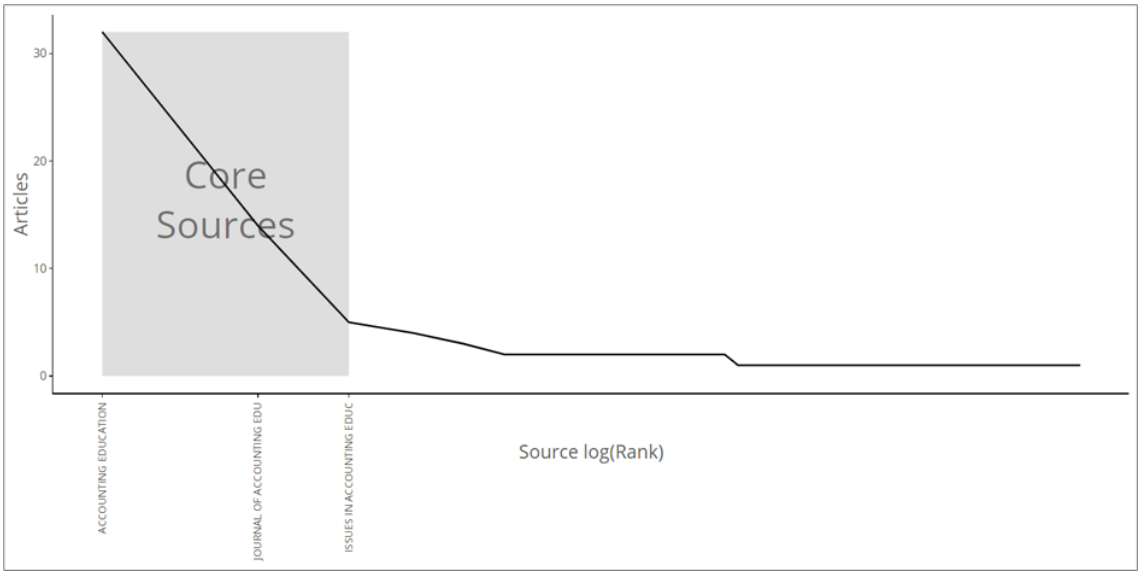

Figure 4 Bradford's Law

Figures 4 and 5 demonstrate core journals with a significant influence on publications on accounting education quality compared to other journals. Therefore, ten authors who contributed the most were presented, and these authors were the authors who produced the most scientific publications on accounting education quality. The data are provided in Table 3.

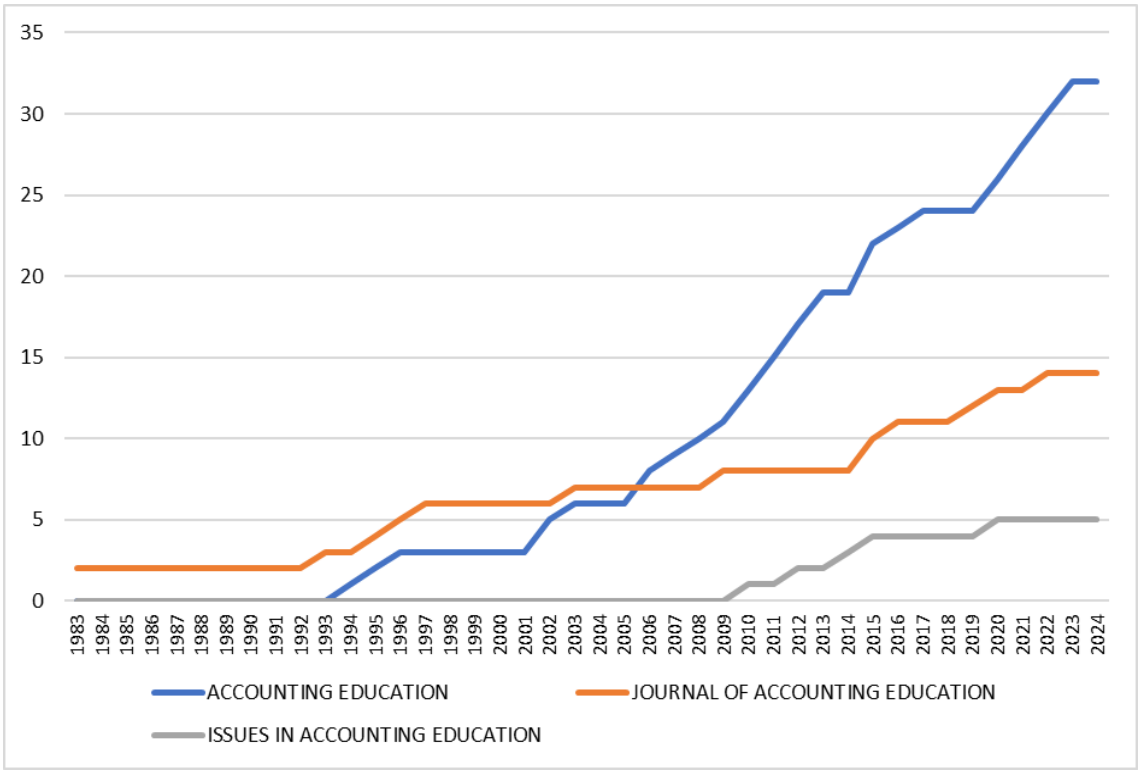

Figure 5 Sources' Production over Time

Table 3 discloses that based on the number of publications, Watty K is the most prolific author with seven articles, followed by Marriott N and Nelson IT with three articles each. Then, other authors such as Byrne M, Cooper BJ, Deines DS, Dellaportas S, Flood B, Hopper T, and Hussain S published two articles each. However, when looking at the impact of the publication, Watty K is still the top-ranked author. Not only does he have a high number of publications, Watty K also has a total citation of 200 and an h-index of 7. Hopper T is also

quite influential, with a total citation of 81 and an h-index of 2. This denotes that even if multiple authors have the same number of publications, the impact of those publications can vary

Table 3 Most Contributing Authors

Rank	Author	Number of Publications	Total Citations	h-index	Publication Start
1	Watty K	7	200	7	2005
2	Marriott N	3	49	3	2015
3	Nelson IT	3	49	3	1993
4	Byrne M	2	49	2	2009
5	Cooper BJ	2	30	2	2018
6	Deines DS	2	28	2	1993
7	Dellaportas S	2	9	2	2012
8	Flood B	2	49	2	2009
9	Hopper T	2	81	2	2004
10	Hussain S	2	66	2	2011

Most Frequently Occurring Keywords

This section presents research keywords used by the authors in research on accounting education quality. Statistical analysis of the author's keywords can provide clues or research directions that can be used to explore the development of scientific research (Donthu et al., 2021). Variation of the research group, where most of the research focus is reflected through the analysis of keyword occurrences visualized in Figure 6.

Figure 6 Words TreeMap

Figure 6 displays the 20 most frequently used keywords in a publication. "Accounting education" is the dominating word that appeared 64 times or covered 47% of the total keyword occurrences. These results point out that accounting education is the main focus of the publications studied. Furthermore, several other keywords also had a significant frequency of occurrence. The words "accounting" appeared nine times, while "accounting history" and "Australia" appeared five times each. This confirms that in addition to accounting education, there is significant research interest in accounting history and the context of accounting education in Australia. Then, to see the relationship between one keyword and another, the co-occurrence network is illustrated in Figure 7.

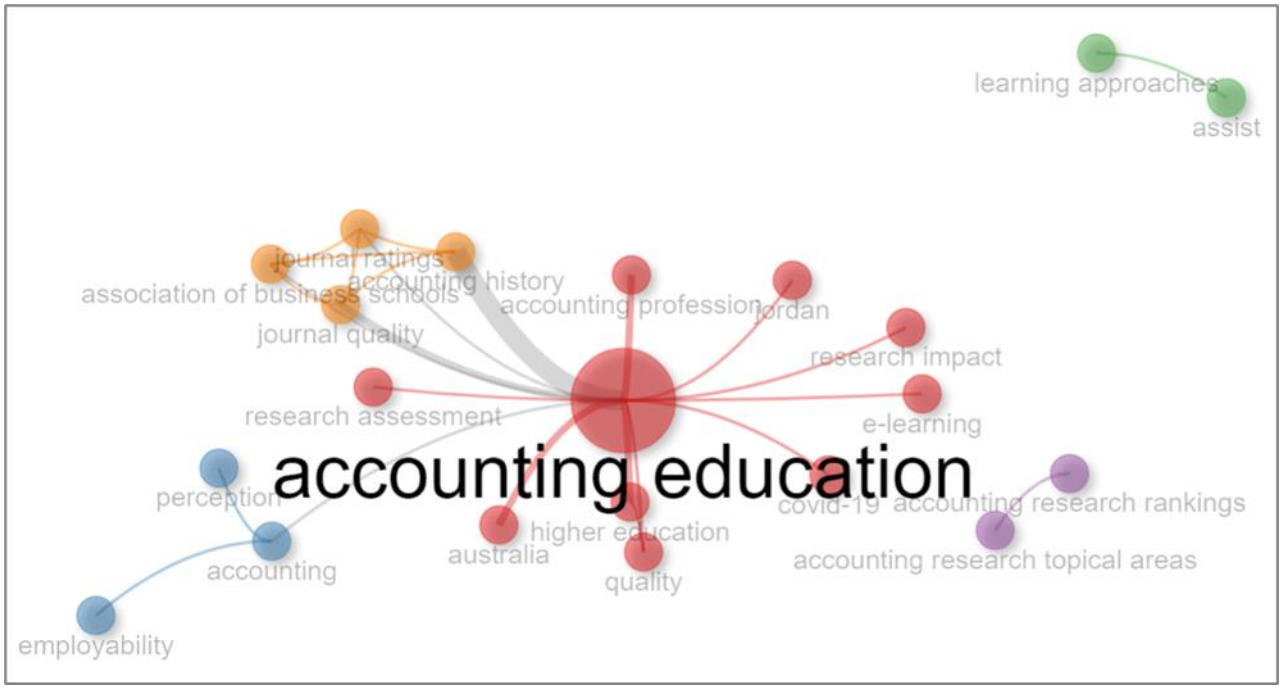

Figure 7 Network Co-occurrence

Figure 7 exhibits five clusters of author keywords about accounting education quality. The red cluster, which is cluster 1, includes ten keywords, including "accounting education," "Australia," "accounting profession," "COVID-19," "e-learning," "higher education," "Jordan," "quality," "research assessment," and "research impact." If analyzed further, these keywords indicate a focus on developing, evaluating, and improving accounting education quality through education, research, learning, and its impact on the accounting profession. Similarly, cluster 2, which is yellow, covers four keywords, including "association of business schools," "accounting history," "journal quality," and "journal ratings," which shows additional aspects that enrich the perspective of accounting education quality through accounting research and history. Then, cluster 3 in blue contains the keywords "accounting," "perception," and "employability," where this cluster may show a focus on the relationship between accounting concepts, perceptions of accounting, and involvement in the world of work. Cluster 4, purple with the keywords "accounting research rankings" and "accounting research topical areas," emphasizes accounting research rankings and trending research topics related to accounting education quality. Finally, cluster 5 in green displays two keywords, namely "learning approaches" and "assist." This cluster is most likely to highlight strategies for learning and support approaches related to accounting education. Further analysis of this cluster can provide insight into effective learning methods in the context of accounting education as well as support efforts that can improve the learning process. Overall, the overview of these five clusters provides a deeper understanding of the complexity and variety of topics covered in the literature related to the quality of accounting education.

Collaboration Network

This section presents a network of collaborations between authors, institutions, and countries. The collaboration network aims to analyze the relationship of cooperation in scientific writing on accounting education quality. This analysis can also provide information about the dynamics of academic partnerships, patterns of research collaboration, and joint contributions in developing knowledge about accounting education quality. The collaboration network between authors is visualized in Figure 8.

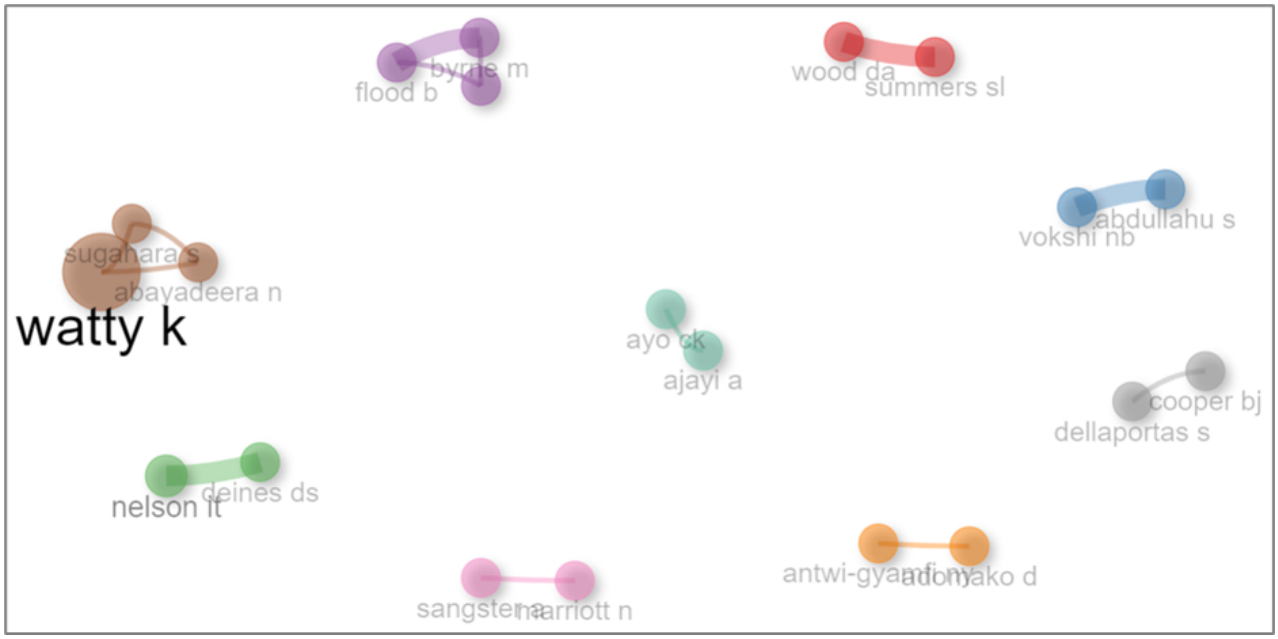

Figure 8 Collaboration Network Based on Authors

The author's analysis of the collaboration network, as visualized in Figure 8, reveals the existence of nine identifiable clusters. Each node of the same color represents the authors involved in the collaboration of a study. The first cluster consists of Summers SL and Wood DA, while the second cluster involves Abdullahu S and Vokshi NB. The third cluster has members Nelson IT and Deines DS. The fourth cluster comprises Byrne M, Flood B, and Arquero JL.

In contrast, the fifth cluster involves Adomako D and Antwi-Gyamfi NY. The sixth cluster includes Watty K, Sugahara S, and Abayadeera N. Meanwhile, the seventh cluster consists of Marriott N and Sangster A. The eighth cluster involves Cooper BJ and Dellaportas S, and the ninth cluster has Ajayi A and Ayo CK members. These findings corroborate critical information data, stating that most scientific publications are collaborative. After that, the collaboration network per institution can be seen in Figure 9.

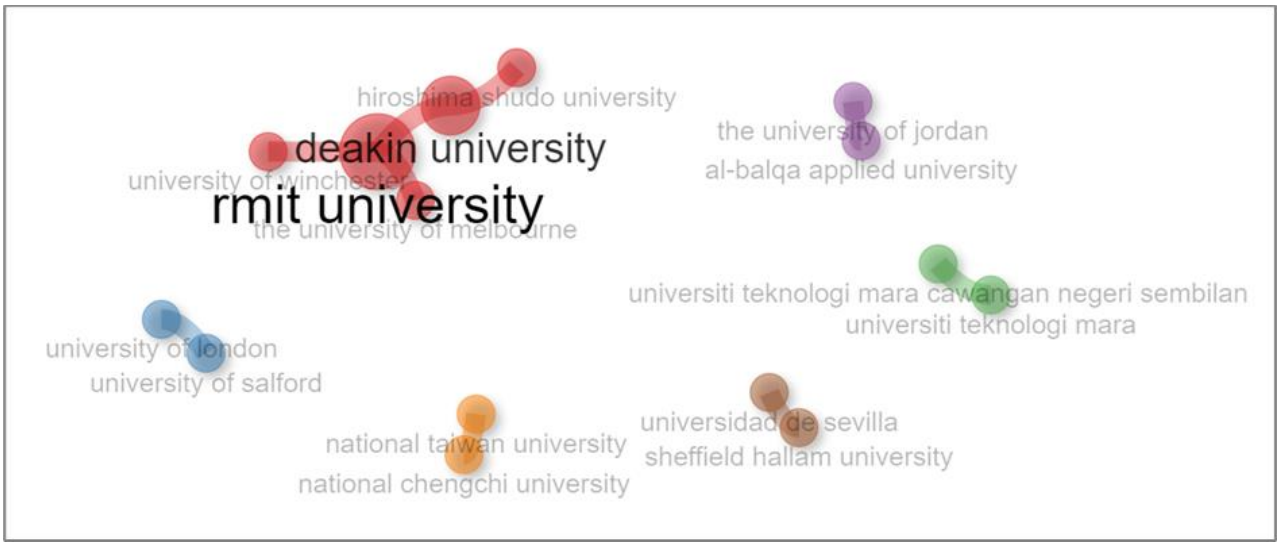

Figure 9 Collaboration Network Based on Institutions

Analysis of collaboration networks by institutions, as illustrated in Figure 9, demonstrates an exciting pattern of cooperation in the world of accounting education quality research. Six main clusters can be identified based on the institutions involved. The first cluster includes Deakin University, RMIT University, Hiroshima

Shudo University, the University of Melbourne, and the University of Winchester. The second cluster consists of the University of London and the University of Salford. Meanwhile, the third cluster involves the MARA University of Technology and the MARA Cawangan Negeri Sembilan University of Technology. The fourth cluster includes Al-Balqa Applied University and the University of Jordan. The fifth cluster involves National Chengchi University and National Taiwan University. Finally, the sixth cluster comprises Sheffield Hallam University and Universidad de Sevilla. Furthermore, the analysis of collaboration networks per country can be observed in Figure 10.

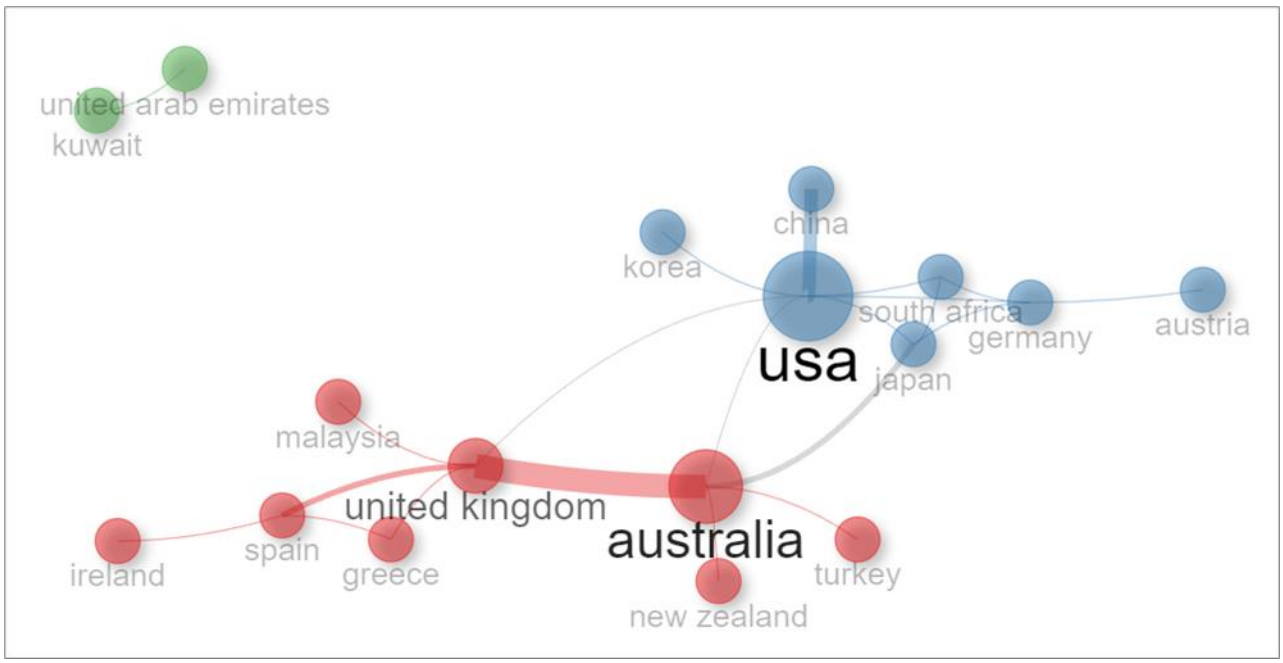

Figure 10 Collaboration Network Based on Countries

Figure 10 provides an overview of international collaboration in accounting education quality research. Three main clusters can be identified based on the countries involved. The first cluster consists of Australia, the United Kingdom, Malaysia, New Zealand, Ireland, Spain, Greece, and Turkey. The second cluster involves the USA, China, Germany, Japan, South Africa, Austria, and Korea. Meanwhile, the third cluster consists of Kuwait and the United Arab Emirates. A world map of collaborating countries is presented in Figure 11 to clarify the collaboration network between countries.

Based on Figures 10 and 11, it can be seen that collaboration in international networks in accounting education quality research remains relatively minimal. International collaboration still has room to improve, and this is an opportunity to stimulate the exchange of knowledge and practices to improve the quality of accounting education between countries. The implementation forms include international conferences, researcher exchanges, and collaborative projects between countries to be an effective strategy to strengthen international collaboration networks in accounting education quality research. This analysis can be the foundation of policies and initiatives that support the growth of international collaboration to improve the quality of accounting education globally.

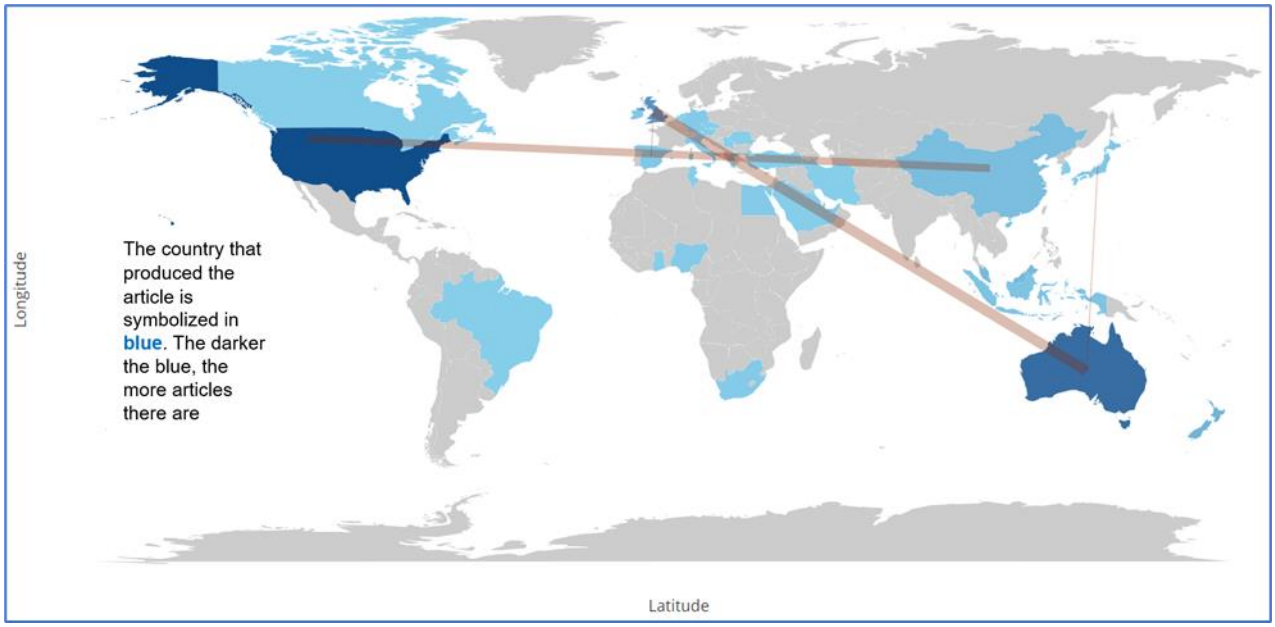

Figure 11 Countries' Collaboration World Map

Future Research Topic Map

This section presents a map of research topics by analyzing the thematic distribution of scientific literature on accounting education quality based on the author's keywords. The analysis is based on visualization of the Thematic Map to help identify trends, research focus, and relationships between topics spatially (Pizzolitto et al., 2023). The Thematic Map visualization is presented in Figure 12.

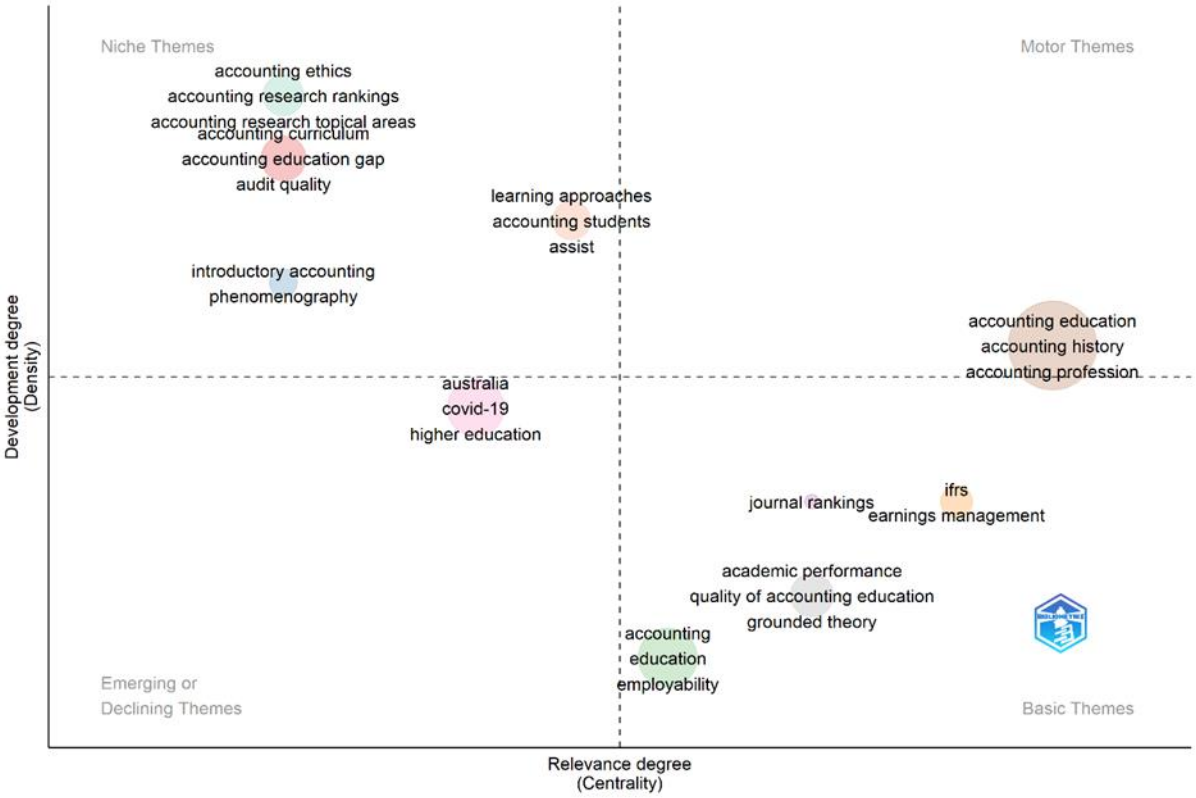

Figure 12 Thematic Map

Figure 12 shows the existence of four quadrants of themes based on density and centrality. Quadrant I is called the motor theme, which is the theme that dominates the development of literature and has a significant impact in motivating or encouraging further research. Keywords included in the motor theme include "accounting education," "accounting history," and "accounting profession." Hence, motor themes such as "accounting education" and "accounting profession" can be further investigated by reviewing the latest accounting education curriculum and its impact on the readiness of accounting graduates in the field of work. Future research could explore whether current curricula include the skills and knowledge needed to meet the challenges of the evolving accounting profession. This aligns with research conducted by Birt et al. (2023), which mentions that the accounting curriculum needs to be updated to include the Information and Communication of Technology (ICT) skills required by future accounting professionals to match the industry's demands and rapid technological developments.

The next quadrant II is the niche theme, a specific theme representing a research approach that has been widely developed. Keywords included in niche themes include "Accounting ethics," "accounting research rankings," "accounting research topical areas," "accounting curriculum," "accounting education gap," "audit quality," "learning approaches," "accounting students," "assist," and "introductory accounting," "phenomenography." Future research on niche themes such as "accounting ethics" could investigate how technological developments impact the ethical dilemmas faced by professional accountants. For example, how artificial intelligence (AI) affects ethical decision-making in accounting or how social media affects accountants' ethical behavior. In line with that, Ballantine et al. (2024) stated that the recent growth of AI, especially large language models (LLM) such as ChatGPT, poses significant problems and challenges that accounting academics need urgently addressing. Accounting academics have a fundamental role in recognizing threats and challenges related to AI and can take advantage of existing opportunities, especially in shaping student ethics. Future research can also consider the theme of the "accounting curriculum" by linking technological developments, especially big data and AI, and adjusting the competence of accounting graduates to the current world of work. A study by Tandiono (2023) mentioned that AI should be integrated into the accounting curriculum so that students can learn about artificial intelligence before encountering it in the workplace. The integration of AI enables students to develop technological skills relevant to the needs of the modern accounting profession, thus preparing them for an increasingly automated work environment (Baldwin-Morgan, 1995). Moreover, today, AI technology can improve accounting and auditing practices to help businesses improve efficiency, accuracy, and decision-making capabilities, resulting in better financial exposure and audit processes (Abdullah & Almaqtari, 2024).

Furthermore, in quadrant III, themes that appear or decrease indicate themes whose studies decrease or disappear from year to year. Keywords that fall under an emerging or descending theme include "Australia," "COVID-19," and "higher education." In comparison, themes such as "COVID-19" may decline as the pandemic subsides, so its impact on accounting education can be further researched. For example, research can investigate the effectiveness of online learning, blended learning, or hybrid learning applied during the pandemic on the learning achievement of accounting students. Learning models that adapt to the digital age are project-based learning and collaborative learning, which will encourage various learning outcomes from students' thought processes (Tavares et al., 2023). The research implications can be used as recommendations for accounting education policies to implement effective and efficient learning models.
Finally, quadrant IV presents a basic theme that includes a common theme and has been researched extensively. Keywords that fall under the basic theme "IFRS," "journal rankings," "earnings management," "academic performance," "quality of accounting education," "grounded theory," "accounting," "education," and "employability." This analysis provides a comprehensive overview of themes that are developing, declining, or becoming a common focus in accounting education quality research. As such, these results can be a valuable guide for researchers and practitioners to plan future research and identify areas that need more attention in the quality literature of accounting education. Basic themes such as "quality of accounting education" can be further examined by reviewing the relationship between teacher quality, learning methods, and accounting student achievement. Without quality and achievement, the accounting profession

will become increasingly irrelevant to the needs of businesses, organizations and governments, society, and the wider public interest (Ballantine et al., 2024). Future research may investigate how accounting education programs can be improved to produce competent graduates ready to face the challenges of a dynamic world of work.

Conclusion

Based on the results and discussion, it may be concluded that the research trend on the quality of accounting education fluctuates from year to year and reaches the highest publication peak in 2020. Furthermore, the research trend based on the most cited article is a study conducted by Tan and Laswad (2006), which examined factors that influence the intention of students to major in accounting and non-accounting disciplines. Next, Watty K was identified as the most influential author with seven articles, 200 citations, and an h-index value of 7. Furthermore, "accounting education" is the author's keyword that appears most often and is the main keyword of research on the quality of accounting education.

In the context of international collaboration, research on the quality of accounting education remains relatively minimal. This creates opportunities to stimulate collaboration among researchers from different countries. Finally, the thematic map draws research topics into four main themes, namely motor themes, niche themes, emerging or declining themes, and basic themes. Future research themes in accounting can focus on curriculum development, the impact of technology, professional ethics, and the effectiveness of online/blended/hybrid learning, considering graduate work readiness and the quality of accounting education.

The findings of this study provide implications for academics and practitioners in identifying developments in the quality of accounting education. In addition, these findings create opportunities to stimulate collaboration between researchers from different countries with a research focus through themes that have been mapped out from this study. These findings can also be the foundation of policies and initiatives that support the growth of international collaboration to improve the quality of accounting education globally. The limitation is that this study only included articles published in the Scopus database. Thus, suggestions for future research can expand the scope by combining data from various quality databases.

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