Cogent Business & Management

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/oabm20

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To cite this article: Didi Pianda, Hilmiana Hilmiana, Sunu Widianto & Dina Sartika (2024) The impact of internship experience on the employability of vocational students: a bibliometric and systematic review, Cogent Business & Management, 11:1, 2386465, DOI: 10.1080/23311975.2024.2386465

To link to this article: https://doi.org/10.1080/23311975.2024.2386465

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COGENT BUSINESS & MANAGEMENT
2024, VOL. 11, NO. 1, 2386465
https://doi.org/10.1080/23311975.2024.2386465

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The impact of internship experience on the employability of vocational students: a bibliometric and systematic review

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ABSTRACT

Employability is a primary priority for vocational students in the competitive labor market, as it is essential to meet the demands of globalization and the Fourth Industrial Revolution. However, there is still limited research on the trends and developments, as well as systematic reviews available on this topic. This study aims to examine research trends and develop a conceptual framework related to the impact of internship experiences and employability, including its dimensions and indicators. This study reviews 23 articles published between 2009 and 2023 in the Scopus database, which appeared in 15 international journals. The research was analyzed using bibliometric and systematic review methods, employing Biblioshiny and VOSviewer software. The findings indicate that the highest publication trend occurred in 2022, with 5 published articles. The most productive country is the United States, with a total of 229 documents. Meanwhile, the most cited journal is Education and Training from Emerald Group Publishing. The author with the most citations is Irwin, Ami, with a total of 220 citations. The most developing topics, based on the thematic map, are student satisfaction, experiential learning, employers, and internship programs, which are dimensions of internship experience impacting the employability of vocational students. The implications of this research will assist stakeholders, industries, vocational education, the government, and researchers in policy formulation and curriculum development that are relevant to the needs of the labor market.

ARTICLE HISTORY
Received 21 November 2023
Revised 23 July 2024
Accepted 25 July 2024

KEYWORDS
Internship experience; employability; vocational students; student satisfaction; experiential learning; employer; internship program; bibliometric analysis; systematic review

SUBJECTS
Education; Sustainability Education, Training & Leadership; Secondary Education; Business, Management and Accounting; Industry & Industrial Studies; Work & Organizational Psychology

1. Introduction

Employability has become a global priority for stakeholders in the labor market. Academics and policymakers agree that employability is crucial in the workplace (Malik & Nawaz, 2022; Peeters et al., 2019; Scoupe et al., 2023). Alongside the increasing global unemployment rate, the future of work and the workforce is undergoing significant transformation. This is driven by automation, artificial intelligence, and evolving job roles. Additionally, these changes result in operational revolution, social support, technology, and remote work facilitated by Information and communications technology (ICT) (Khor & Tan, 2023). This revolution led to substantial changes in jobs, workplaces, and job skills needed in the labor market (Kapanen et al., 2016; Oliveira et al., 2023). Globalization and the Industrial 4.0 revolution as digitalization, knowledge, and capacity in the workplace are new challenges in terms of collaboration for young workers (Haipeter, 2020; Postelnicu & Câlea, 2019). Thus, employability in the labor market is a growing research trend today (Dinh et al., 2023; Masduki et al., 2022; Sharma & Bhattarai, 2022).

Employability has been recognized as important as a person's ability to maintain and develop job opportunities in various sectors of employment (Fugate et al., 2021; Su & Zhang, 2015; van Heerden et al., 2023). The trend of employability is now a significant concern, especially for young people in the labor market. The high unemployment rate is due to unequal employment opportunities for young people, low employability, the mismatch between graduate employability and labor market demand, limited

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access to information and career networks, and lack of practical work experience (Baluku et al., 2021; Devarajan, 2017; O'Reilly et al., 2019; Singh & Ehlers, 2020).

The most significant increase in unemployment was experienced by the level of vocational graduates compared to graduates of other schools Tudor et al. (2023). Students need to be equipped by education professionals with various strategies to increase confidence in obtaining jobs and prepare themselves for dynamic job demands (Duggal et al., 2023). Vocational students will face a variety of specific challenges to the dynamic needs of specific skills in the job market. So far, vocational students are seen as less competitive compared to college graduates. Vocational students also need non-technical skills to meet professional challenges to be ready to enter the job market such as communication, teamwork, and problem-solving skills.

Vocational education will provide hands-on training to acquire specific skills that are relevant and up-to-date with the industry, thereby increasing productivity and job opportunities after graduation, can overcome the skills gap that job seekers have with the skills desired by employers, Developing the right professional attitude and work ethic can build valuable professional networks as well as support their future careers (Chamadia & Mubarik, 2021; English et al., 2021; Jackman et al., 2021; Yusop et al., 2023). In addition, vocational education also provides opportunities for students to take part in internship programs, which makes it possible to gain valuable work experience before they graduate (Alp et al., 2023). Educational institutions are required to be able to increase student employability during the internship process in the industry (OECD, 2016).

Internships play a crucial role in improving the employability of vocational students by bridging the gap between academic knowledge and practical skills, making them more attractive to potential employers (Hora et al., 2020). Internships provide an opportunity to connect with potential employers and demonstrate practical skills, which ultimately has a positive impact on graduate employability (da Silva & Teixeira, 2013). Internships are used in various forms to solve the problem of unemployment and increase employment for young people (Hunt & Scott, 2020; Margaryan et al., 2022; Silva et al., 2018). Internships are one of the effective strategies carried out for students who have not yet graduated that pave the way to the world of the labour market (Di Meglio et al., 2022).

Results of research bibliometric analysis by Dinh et al. (2023), regarding employability taken from the Scopus database from 1972 to 2019, found that the conceptual structure of the discipline was visualized by highlighting three main schools of thought including employer requirements and higher education institution preparation; factors that precede employability; and the role of work-based learning in increasing employability. Contribution to this research calls for conducting integrative research on private agency and employability, as well as contributing practically in the field of human resource development to focus more on the multi-level perspective between institutions and structural that affect the improvement of individual employability.

Bibliometric analysis in research by Triyono et al. (2023), about the focus of vocational education growth on employability based on the Scopus database between 2003 and 2022. This research focuses on aspects of employability, higher education, technical education, curriculum, employment, and vocational education. The results of the report found that the UK was more influential in terms of citations. Employability research has grown rapidly in Australia, Malaysia, India, and the United States. Further results of this study suggest to researchers that more extensive research on vocational education is still needed to face the challenges of the digital era and the industrial revolution 4.0. In addition, research needs to be conducted on aspects of experiential learning, 21st-century competencies, and work-based learning to help people get better jobs. Another aspect that is important to be studied more deeply is related to the curriculum, teaching, learning, and e-learning in vocational education. This trend shows the increasing interest of the scientific community in this topic in the last five years.

The trend of analysis using bibliometrics in the attribution of internship experience to employability has experienced a significant increase in research interest over the past decade, especially after 2017. Bibliometric analysis highlights increasing internship recognition as an important factor in increasing employability (Marinas et al., 2022). The literature above mentions the importance of internship experience on the employability of vocational students. However, other literature according to Saidani et al. (2022) that, internships do not guarantee to increase in student employability and this study provides strong evidence that graduate employability can be predicted from the context of internships. It is

intended that a good internship will obtain high employability or vice versa. Therefore, it is important to conduct a rigorous empirical analysis of the impact of internship work (Choe et al., 2023).

Bibliometric analysis related to students' internship experience in the context of vocational school education has not been done much. This study is the first study to explore the impact of internship experience on student employability in vocational high schools through bibliometric analysis to contribute a progressive perspective on this issue. This bibliometric analysis is used to help researchers understand the relationship between concepts, research directions, and progress in a field through visualization (Wang & Gu, 2022). Bibliometric analysis and systematic literature review (SLR) can also be used to assess and map the contributions of individual, organizational, and country researchers thereby identifying national and international collaborative networks. Exploration of the level of authorship collaboration related to vocational student employability is also needed to produce knowledge sharing (Akbari et al., 2020; Koseoglu, 2016). Broadly speaking, bibliometric analysis is invaluable for describing research trends and providing insights for future research directions.

The study analyses some relevant data from previous research to achieve the above research objectives, therefore this study attempts to answer the following research questions (RQ):

RQ1: What are the research trends and publication features related to internship experience and employability?
RQ2: Which countries, institutions, and journals do the most research on employability and internship experience?
RQ3: Is there any link and collaboration network among authors, countries, and keywords related to internship experience and employability? and, who are the most prolific authors contributing the most number of articles and have the most citations?
RQ4: What are some emerging topics based on the thematic map, as well as how is the conceptual structure related to the internship experience and employability?
RQ5 Design a conceptual framework of vocational student employability through an internship experience with its dimensions and indicators.

2. Method and data

This study was systematically reviewed with bibliometric analysis conducted using VOSviewer software and the Biblioshiny package in R Language as an analysis. Biblioshiny is an application tool in the visualization of web provision with the R programming language to perform bibliometric analysis developed by Aria and Cuccurullo (2017). VOSviewer is a software application for analyzing and visualizing networks that are used mainly in the field of bibliometrics and scientific analysis developed by Van Eck and Waltman (2014). Bibliometrics in this study is used to collect data, conduct a thorough analysis, and select research according to the topic. According to Wang et al. (2021), bibliometric analysis is the analysis of documents with a quantitative approach and statistical visualization to help reveal the characteristics of bibliography and current literature trends. This study conducted a systematic review with the same keywords and methods as the term, namely semi-systematic review, integrative review, narrative review, systematic review, meta-analysis, review paper, bibliometric analysis, and systematic literature review (Momeni et al., 2021).

Evaluation and screening of the feasibility results of this study are based on the guidelines of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) and PICO (Participants, Interventions, Comparisons, and Outcomes). The data collection process in this study consists of database selection, literature extraction based on inclusion and exclusion standards, export of extracted data to Biblioshiny, and article screening. Literature review as a basic guideline created by Kraus et al. (2022) as an independent study. This study uses Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) as a reference with an integrative approach to "what", "why", "when", "where", "who" and "how" (Paul et al., 2021). Meanwhile, bibliometric data analysis uses a sensemaking approach involving 3 (three) phases, namely data scanning, data sensing, and data proof to analyze, understand, and interpret data or information in a complex manner in a systematic way (Lim & Kumar, 2023). *The data scanning phase* is the initial phase of the sensemaking process, where this phase is the most important part of the significant bibliometric analysis phase, such as coupling analysis, citation, and co-citation analysis, publication and citation metrics over time, and contributors to influential and productive groups.

The data sensing phase, this phase is a stage where researchers analyze in-depth related data to identify patterns, trends, and relationships between topics in investigating the "how", "why", and "what" of the identified patterns as well as observations in understanding the root of the problem behind the trend. This provides a complete and comprehensive perspective on bibliometric results. *In the data proof phase*, where individuals or groups attempt to confirm or validate their understanding of the situation or problem at hand in helping to give confidence to the overall outcome through a process of standardizing credibility, dependability, transferability, and suitability, these results will increase the reliability of the research by experts.

The process of reviewing articles in research by Turzo et al. (2022) includes 10 review steps using PRISMA and AMTAR 2 protocols. This study adopts the steps of the PRISMA-based review process which are outlined in 5 steps as follows: The first step is to determine the keywords in the article search. Keywords used "Internship experience" AND "employability" along with on 16 January 2023. In the second step, the initial result of the article extraction. The initial search results obtained 30 article documents according to keywords. In the third step, an increase in search results is carried out. Initial search data is collected through the SCOPUS database. The SCOPUS database was chosen because it includes high-quality journals, credibility, a rigorous review process, and one of the most comprehensive bibliographic sources, as well as a wide scope compared to the web of science (WoS) (Mongeon & Paul-Hus, 2016). According to, Rovira et al. (2019) and Dewi et al. (2022), the SCOPUS bibliographic database displays the correct number of citations and ratings for each component as specific information. The initial data search results are exported to an xlsx file that contains the author name, citation, document title, year, source title, volume, publication, page, number of citations, source type, document type, abstract, and keywords. Next, file.xlsx is converted into a sortable, and depicted, spreadsheet, and the search results are saved in RIS format (Li et al., 2022). This study collects initial search results by running queries on the Scopus Database. The combinations of search strings and Boolean operators are TITLE-ABS-KEY ("internship experience" AND "employability") AND PUBYEAR > 2008 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (LANGUAGE, "English")).

Conduct a search based on the complete text on the article title, abstract, and author keywords. We limit queries to documents published in the last 14 years from 2009 to 2023 in the "article" category and English so that we can collect high-quality material with a *double-blind peer review process*. According to Yu et al. (2020) and Strauss and Manalo (2023), the selection of English-language journals in the research is to be able to provide international coverage, opportunities to collaborate and disseminate knowledge widely, and ensure strict information quality. In addition, many researchers use English so that searching for articles can be faster and more efficient. The database of relevant articles is also more widely displayed in English. Although other language articles are relevant and reputable, they are very few and do not have the same peer-reviewed standards. The 2009 selection to link our research with the Lundsteen and Edwards (2009) study previously focused only on the academic process and chose 2023 as the final year because there was a significant relationship between the internship experience and employability, as in the 2023 research findings that professional experience significantly and positively affected student perceptions about job skill development. From the increase in search results, 23 article documents are obtained as the last option.

In the fourth step, the final screening process is carried out by selecting articles based on inclusion and exclusion criteria. The inclusion and exclusion criteria are set based on the categories of authors, citations, document titles, years, source titles, volumes, publications, number of citations, source and document type, abstracts, and keywords combined into an RIS file. Last, in the fifth step, the selected articles are subjected to bibliometric analysis and systematic review. Bibliometric analysis was chosen because it has the advantage of providing insight into the developments, trends, and impact of research in a particular field. This is because bibliometrics uses citations as an indicator of the impact of a study and helps identify the most influential research in a field. In addition, bibliometrics can also help identify the latest trends in a research field, thus offering a comprehensive picture of the research landscape (Zhu et al., 2023). In this case, bibliometric analysis will be very useful to describe the development of trends and the impact of research on the field of internship experience and employability which is still small. Despite its advantages, it is important to note that bibliometric analysis requires critical thinking,

analysis, and meaningful interpretation to be truly effective (Greener, 2022). Although this bibliometric analysis cannot explain the impact qualitatively, because bibliometrics only measure quantitatively from the number of citations and the number of publications. This stage is carried out with VOSviewer and Biblioshiny software to help visualize the data and add information related to a deeper understanding of the scientific literature relevant to the study and organize and analyze the data more efficiently (Aria & Cuccurullo, 2017; Donthu et al., 2021; Van Eck & Waltman, 2014). The stages of the bibliometric literature review method are shown by inclusion and exclusion criteria following the PRISMA protocol introduced by Turzo et al. (2022) (see Figure 1).

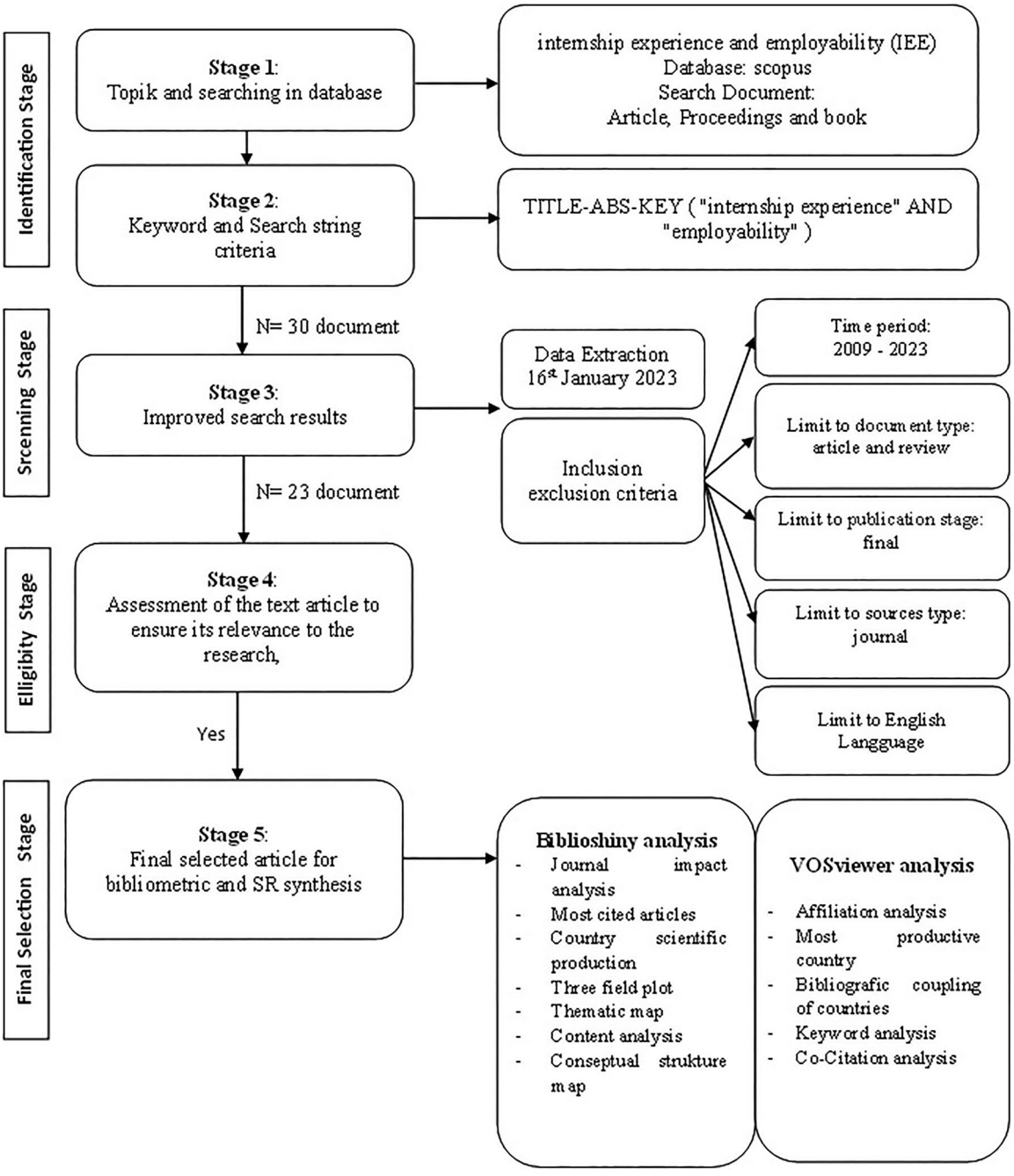

Figure 1. Review design process for internship experience and employability (IEE) research based on the PRISMA protocol.
Source(s): Turzo et al. (2022).

3. Results and discussion

3.1. The bibliometric analysis's findings

Bibliometric analysis was carried out on 30 research papers published over 14 years (2019–2023), obtained from the Scopus database. The first step of systematic review research is to collect and combine the results of the research with the previous literature. According to Zupic and Čater (2015), the purpose of the review is to use the literature structure of the review and meta-analysis. Instead, characterize, describe, assess, evaluate, and track published literature related to relevant topics using bibliometric analysis.

This methodology is used to analyze important publications, important articles, social networks, related documents, as well as interesting topics. Through the use of bibliometric analysis, the study helps to find and examine a large amount of relevant scientific data from a particular topic to uncover the area of research being investigated and developed based on the number of citations and the location of the research (Agbo et al., 2021; Donthu et al., 2021). A descriptive description of the publication of internship experience and employability is described in Table 1. A total of 22 publications on the topic of student internship experience and employability were taken from the Scopus database for the period 2009 to January 16, 2023. Table 1 illustrates 22 documents (95.7%) of research articles, 1 document (4.3%) of review articles, the number of authors in this field is 60, and the number of journals that published 30 papers with the theme of this research is 15 journal sources.

3.1.1. Trend of publication

In this study related to the topic of internship experience and employability, this context is important and useful in the field of education and industry. Although this topic was previously still not explored much with an increase in the number of publications, the current surge in publications (2019, 2020, and 2022). While 2021 and 2023 publications began to decline, the researcher started by determining the background and limitations of the research. This article lists research publications, authors, keywords, and research groups related to internship experience and employability. Over the past 14 years, there have been 30 related research publication articles on internship experience and employability, as shown in Figure 2. The highest number of publications in 2022 until 16 January 2023, is 5 documents. Furthermore, from 2019 to 2021, the number of documents issued was 3 documents each. In 2017 and 2018, 2 documents were issued each, while in 2009 to 2016, 1 document was issued each (see Table 2).

From 2009 to 2016, there was only 1 article (9.1%), followed in 2017 and 2018 by 2 documents (18.3%), which increased by 9.2%. Then from 2019 to 2021, the number of documents issued was 3 documents each (27.3%), this also saw an increase in publications by 18.2%. Then 2022 until 16 January 2023, as many as 5 documents (45.5%), experienced a maximum increase of 36.4%. The data of this study is only temporary, so the collection of articles for this study can be developed until December 2023. Therefore, the number of article publications each year varies, as shown in Figure 2a, b.

Table 1. Descriptive overview of selected publications on internship experience and employability.

Description	Criteria	Results
Main information about data	Timespan	2009 - January 16, 2023
	Sources (Journals, Books, etc.)	15
	Documents	23
	Annual Growth Rate %	0
	Document Average Age	5.43
	Average citations per doc	16.87
	References	0
Document contents	Keywords Plus (ID)	11
	Author's Keywords (DE)	94
Authors	Authors	60
	Authors of single-authored docs	1
Authors collaboration	Single-authored docs	1
	Co-Authors per Doc	2.65
	International co-authorships %	17.39
Document types	article	22
	review	1

Source: Biblioshiny, 2023.

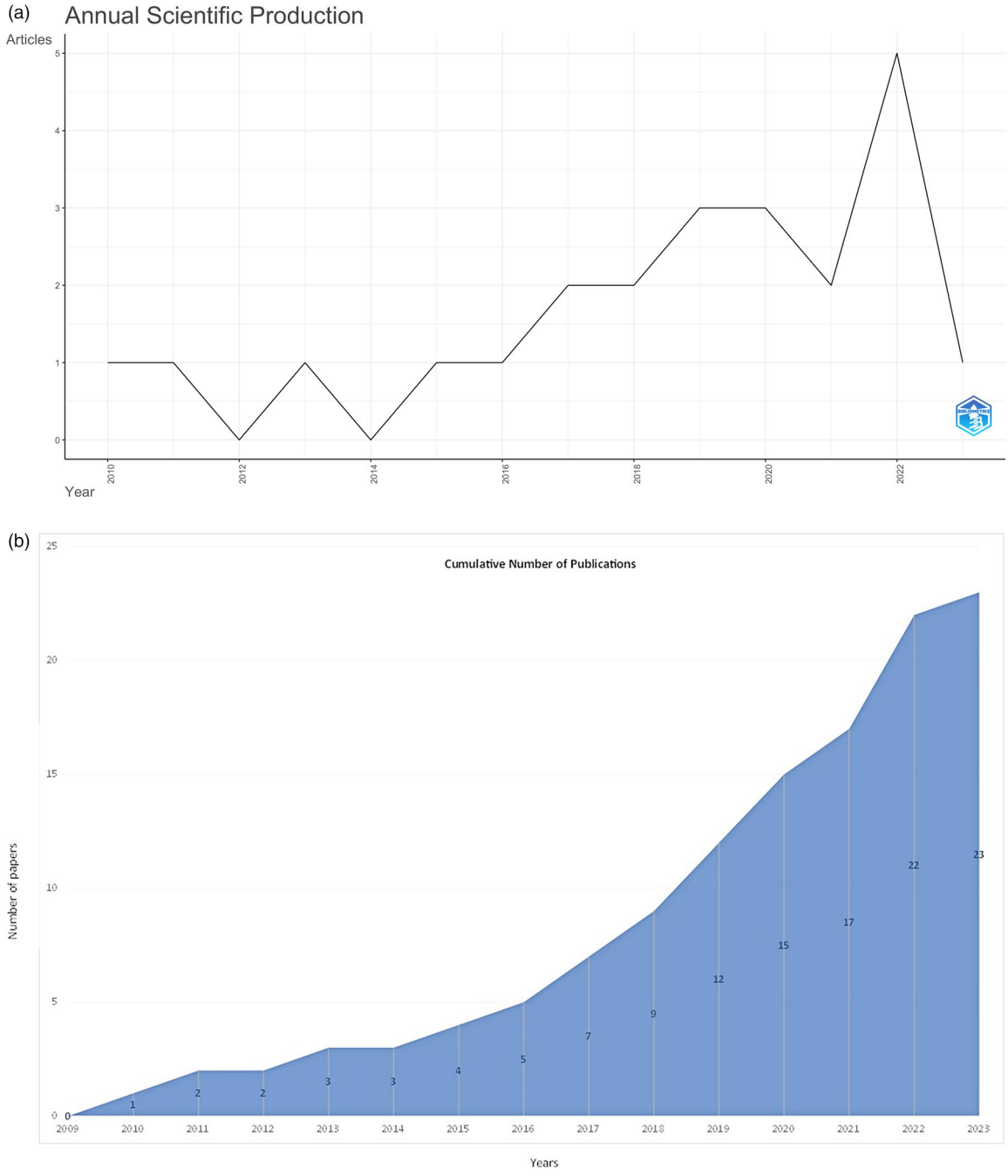

Figure 2. (a) Number of articles published per year. *Source:* Biblioshiny, 2023. (b) The cumulative number of publications on "internship experience and employability" from 2009 to 2023.
Source(s): Own elaboration in Scopus, 2023.

This researcher evaluates publications in bibliometric studies to determine developments, publication trends, and progress, related to research on internship and employability experiences. The results show that the number of publications in the next ten years will be about 30 articles per year, equivalent to a cumulative total of 491 publications until 2025. Then, the current health emergency generated by COVID-19 has increased the number of publications. The socio-economic consequences of the lockdown measures of the past few months and the crisis itself have had a significant effect on supply chain operations, the effectiveness of which is now more necessary than ever. For this reason, the increase in publications attests to the increasing interest of researchers.

Table 2. The trend of articles published on "Internship Experience and Employability".

Year	Articles
2009	0
2010	1
2011	1
2012	0
2013	1
2014	0
2015	1
2016	1
2017	2
2018	2
2019	3
2020	3
2021	2
2022	5
2023	1
Total	23

Source: Biblioshiny, 2023.

Table 3. The top most productive journals on internship experience and employability.

Rank	Journal	Publisher	TP	TC	H-index	CS	PY (Star)
1	Higher Education, Skills and Work-Based Learning	Emerald Group Publishing	5	64	20	3.2	2016
2	Education and Training	Emerald Group Publishing	4	220	78	6.6	2010
3	Higher Education	Springer Netherlands	2	51	118	8.6	2019
4	Chinese Education and Society	Taylor & Francis	1	8	17	0.6	2013
5	International Journal of Learning	Common Ground Research Networks	1	6	13	0.2	2011
6	International Journal of Music Education	SAGE Publications	1	4	32	2.4	2017
7	Journal of Agricultural Education and Extension	Taylor and Francis	1	3	33	4.3	2023
8	Journal of Education and Work	Brill Academic Publishers	1	2	43	2.1	2020
9	Journal of Geography in Higher Education	Routledge	1	2	56	4.5	2015
10	Journal of Hospitality and Tourism Education	Taylor and Francis	1	1	28	5.4	2023

Notes: *TP_Total Publication; PY_Publication Year; TC_Total Citation; CS_ Cite Score.

3.1.2. The most productive journal source

The ten most productive journals in the field of internship experience and employability are in *Higher Education, Skills and Work-Based Learning* published by Emerald Group Publishing, which contributed the highest number of articles with 5 (five) documents with an h-index of 20 and a cite score of 3.2. When assessing the productivity and reliability of the most productive journal sources, it is important to consider several factors including peer review, author credentials, publication reputation, and relevance to the topic of this research. The 10 most productive journal sources about internship and employability can be seen in Table 3.

3.1.3. Journal impact analysis

Journal impact analysis is the process of evaluating the influence and significance of academic journals in a particular field of study. The influence of journals related to the field of internship experience and employability is measured by calculating the number of articles published and citations received. The highest citations indicate the journals that are most relevant to the subject or theme of this research. Based on the analysis of the journals, it shows that the education and training journal has the highest or maximum number of citations 220 citations. For the 10 journals with the most sources cited, see Table 4.

3.1.4. Most cited articles

Citation analysis is a research methodology used to test citation patterns in academic literature. Citation analysis provides insight into the influence, impact, and linkages between various publications and researchers in a particular field or discipline. The writer has an impact on writing, how much other

Table 4. Top 10 most cited sources.

Rank	Sources	No. of citations
1	Education and Training	220
2	Higher Education, Skills and Work-Based Learning	64
3	Higher Education	51
4	Journal of Education and Work	29
5	Chinese Education and Society	8
6	International Journal of Learning	6
7	International Journal of Music Education	4
8	Journal of Agricultural Education and Extension	3
9	Journal of Geography in Higher Education	2
10	Journal of Hospitality and Tourism Education	1

Source: Biblioshiny, 2023.

writers can cite on a particular writing. In Table 5, it can be explained how much writing cited by other authors is related to internship and employability experience. Research written by Gault et al. (2010), titled '*Effects of business internships on job marketability: The employers' perspective*" which was published in 2010 is the most cited document in this field related to internship experience and employability, which is 196 times the total citation.

3.1.5. Affiliation analysis

Affiliate analysis is the process of identifying and analyzing relationships and connections between individuals, organizations, and groups. This research has the top 10 institutions by producing a large number of studies related to internship experience and employability from 2009 to January 2023. These top 10 institutions have contributed to 23 articles shown in Figure 3.

3.1.6. Most productive country

Determining the "most productive" country can depend on the specific metrics or criteria used to measure productivity. This study analyzes that related to the field of internship experience and employability, ten countries contribute by showing that the *United States* is in the first position level by contributing 229 article documents. *China* and *the United Kingdom* are in the second and third positions, respectively, with 3 articles each, as shown in Table 6.

The social networks between countries and related authors in the field of internship experience and employability were analyzed based on the merger of bibliographies from the top 10 countries. The connecting lines between nodes are obtained by showing relationships, where nodes with a larger size are countries that have many connections (see Figure 4).

3.1.7. Country scientific production map

Data obtained based on the Scopus database shows five countries contributed the maximum number of article documents and making the largest contribution related to the field of internship experience and employability, namely the United States (USA) which contributed the most documents, namely 14 documents, then the United Kingdom 9 documents, China 8 documents, and Australia, the United Arab Emirates, and Kenya 5 documents each (see Figure 5).

3.1.8. Author impact analysis

Author impact analysis is a method used to evaluate the influence and significance of a writer's scientific work in a particular field or discipline. This involves assessing various metrics and indicators to gauge the reach, visibility, and importance of an author's contributions. Some common metrics used in author impact analysis include the number of citations, H-index, and impact factor. Based on the impact analysis on the authors of the article, the author took ten studies related to internship experience and employability by contributing a large number of documents. The top authors who contributed 2 articles were Amy Irwin, Joy Perkins, Leah Luise Hillari, and Darja Wischerath, from the United Kingdom (UK), while others contributed one article each, listed in Table 7.

Table 5. Top 15 most cited articles on internship experience and employability research.

Rank	Title	Authors	Years	DOI	Source	Type of research	TC	TC per Year	NTC
1.	Effects of business internships on job marketability: The employers' perspective	Gault et al. (2010)	2010	10.1108/00400911011017690	Education and Training	Empirical	196	13.07	1
2.	Business students' perspectives on employability skills post internship experience: Lessons from the UAE	Griffin and Coelhoso (2019)	2019	10.1108/HESWBL-12-2017-0102	Higher Education, Skills and Work-Based Learning	Conceptual	37	6.17	1.261
3.	Stakeholder perception of student employability: does the duration, type and location of work experience matter?	Irwin et al. (2019)	2019	10.1007/s10734-019-00369-5	Higher Education	Empirical	30	5.00	1.023
4.	How do students conceptualise the college internship experience? Towards a student-centred approach to designing and implementing internships	Hora et al. (2020)	2020	10.1080/13639080.2019.1708869	Journal of Education and Work	Empirical	29	5.80	2.071
5.	I wish to do an internship (abroad): investigating the perceived employability of domestic and international business internships	Pinto and Pereira (2019)	2019	10.1007/s10734-018-0351-1	Higher Education	Empirical	21	3.50	0.716
6.	The perceived value of internship experience: a try before you leap	Bhattacharya and Neelam (2018)	2018	10.1108/HESWBL-07-2017-0044	Higher Education, Skills and Work-Based Learning	Conceptual	20	2.86	1.818
7.	Factors influencing internship satisfaction among Chinese students	To and Lung (2020)	2020	10.1108/ET-01-2020-0023	Education and Training	Empirical	13	2.60	0.929
8.	Student Musicians' experiences of reflexivity during internships: Personal narratives and complex modalities	Bennett et al. (2017)	2017	10.1177/0255761416689843	International Journal of Music Education	Conceptual	8	1.00	2
9.	Enhancing perceived employability through work-integrated learning	Ng et al. (2022)	2022	10.1108/ET-12-2021-0476	Education and Training	Empirical	7	2.33	2.333
10.	Geography students' assessment of internship experience at a Kenyan university	Simiyu et al. (2016)	2016	10.1080/03098265.2015.1038780	Journal of Geography in Higher Education	Empirical	6	0.60	1
11.	Student internship experiences: areas for improvement and student choices of internship practices	Thi Ngoc Ha and Dakich (2022)	2022	10.1108/ET-09-2021-0337	Education and Training	Empirical	4	1.33	1
12.	An essential partnership for preparing students to work in the global knowledge economy	Joseph and Payne (2011)	2011	10.18848/1447-9494/CGP/v17i11/47352	International Journal of Learning	Empirical	4	0.29	1.333
13.	Workplaces and policy spaces: Insights from Third Sector Internships Scotland	Pegg and Caddell (2016)	2016	10.4324/9781003045779	Higher Education, Skills and Work-based Learning	Empirical	3	0.33	2
14.	Sustainable development of employability of university students based on participation in the internship promotion programme of Zhejiang Province	Chen and Gan (2021)	2021	10.1108/HESWBL-07-2015-0039	Sustainability (Switzerland)	Empirical	3	0.75	1
15.	Is the future of internships online? An examination of stakeholder attitudes towards online internships	Irwin et al. (2022)	2022	10.3390/su132313454	Higher Education, Skills and Work-based Learning	Empirical	3	0.67	0.182

Notes: *TC_Total Citation; NTC_Normalized Total Citation.

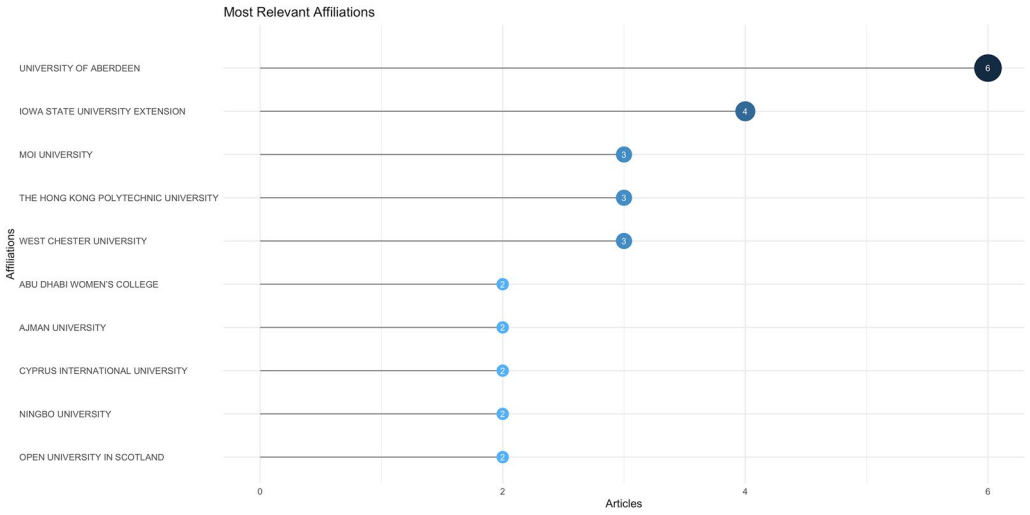

Figure 3. Most relevant affiliantions.
Source: Biblioshiny, 2023.

Table 6. Top 10 countries contributing a maximum number of documents.

Rank	Country	No. of documents	C	ACD	TLS
1	United States	6	229	38.2	190
2	China	3	4	1.3	147
3	United Kingdom	3	35	11.7	21
4	United Arab Emirates	2	37	18.5	55
5	Australia	2	12	6	4
6	South Africa	1	0	0	71
7	Zambia	1	0	0	71
8	Portugal	1	21	21	32
9	Spain	1	1	1	17
10	India	1	20	20	14

Notes: *C_Citation; ACD_Average citation per document; TLS_Total Lingk Strength.

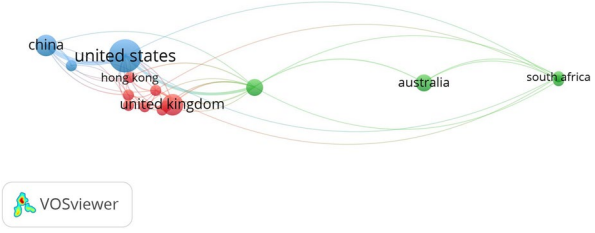

Figure 4. Bibliographic coupling of top ten countries.

3.1.9. Analysis of keywords

Analysis of keywords is a process to identify and examine keywords that are important in a particular text (Agbo et al., 2021). Bibliometric analysis, keywords used to investigate a topic that is currently popular in the field. In this study, 22 related documents about internship experience and employability. Keywords that are generally indexed in the Scopus database can be considered for analysis 1 time. The 11 most common keyword appearance networks are "university sector", and "student". The analysis of keywords is shown in Figure 6.

3.1.10. Three field plots of keywords author country

Sankey Diagram or called Plot three fields which include, keywords (right side), country (middle), and author (left side). The size of each node corresponds to the number of documents published by each

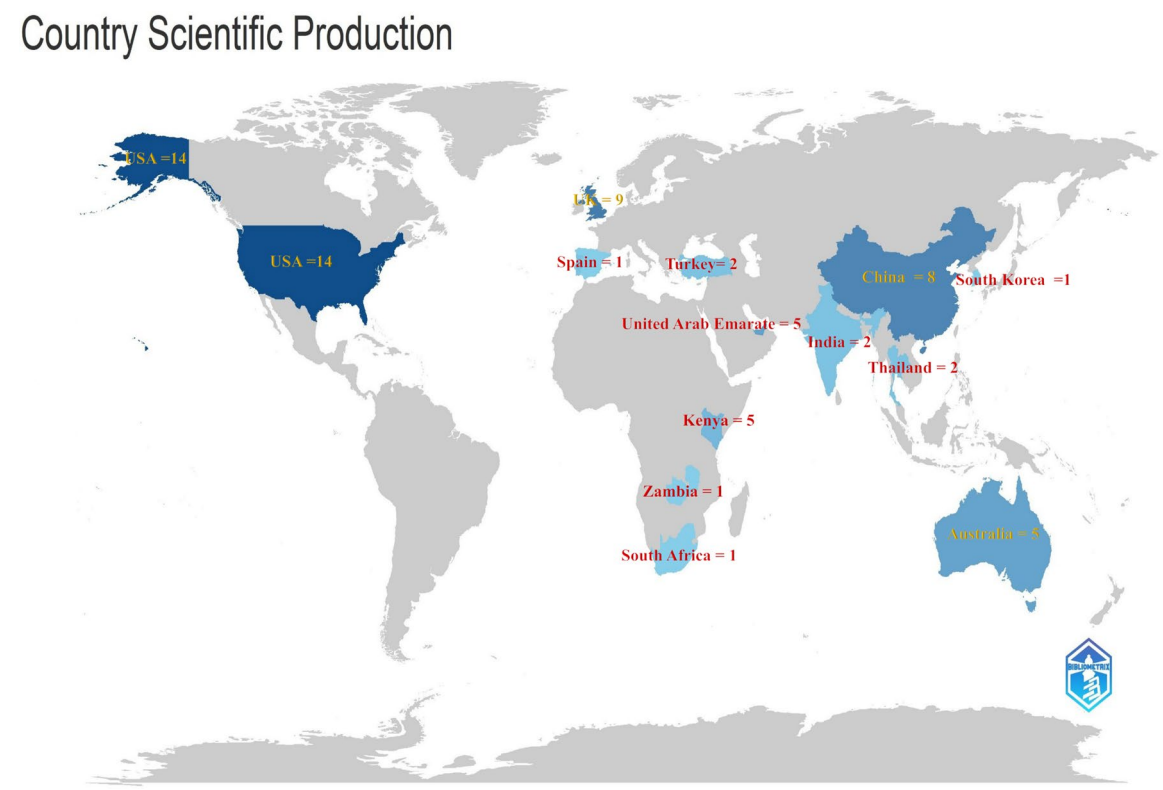

Figure 5. Country-wise production map.
Source: Biblioshiny, 2023.

country. The thickness of the overlapping lines indicates a significant relationship between the two subjects. This figure shows that the USA is the country with the largest contribution in this field (Figure 7).

3.1.11. Thematic map of keywords

Thematic analysis was carried out on the topic of internship experience and employability over 14 years as the year between 2009 and 2023. The cluster frequency parameter of the minimum number of words is set at 5 (five), the number of labels and the size of the labels are set at 5 (five) and 1 (one) respectively, and the number of words is set at 100 keywords and the grouping algorithm is a walktrap. Keywords define the important topics of the study. To gain further insight into the scope of this research, a thematic map of studies related to internship experience and employability was created. This analysis can help stakeholders and budding researchers to understand the potential of relevant topics.

To plot the theme into four quadrants, the author analyzed the common words of the author's keywords used to create a theme map based on density and centrality in two axes. The first axis in the two quadrants, namely Quadrant 1 (Motor Theme) represents well-explored research topics from a particular field characterized by high centrality and high density. The keywords of the motorcycle theme are *experiential learning* and *satisfaction,* and Quadrant 2 (Niche Themes) with keywords from custom themes being *student*. The second axis is divided into two quadrants, namely Quadrant 3 (Peripheral theme) containing the theme *employability skills* and *internship.* Quadrant 4 (Transverse or Basic Themes) represents themes that have high centrality and high density, namely *employability*, *high education,* and *internship.*

The joint word analysis of the author's keywords was carried out to prepare a theme map based on density and centrality along two axes, plotting the theme into four quadrants. In this case, Quadrant 1 (Motor Themes) represents a well-explored research topic from a particular field characterized by high centrality and high density. The keywords of the motorcycle theme are *experiential learning* and *satisfaction*. Quadrant 2 (Niche Themes) with keywords from a specific theme is a *student*. Quadrant 3 (peripheral themes) contains the theme of *employability skills* and *internship.* Quadrant 4 (Transverse or Basic

Table 7. Top 10 authors contributing the maximum number of documents.

Rank	Author	Affiliations	Scopus ID	Country	Document	Citations	H-Index	ID ORCID
1	Irwin, Amy	University of Aberdeen, Aberdeen	36990174700	United Kingdom (UK)	2	220	4	https://orcid.org/0000-0003-2526-4750
2	Bennet D	Bond University, Gold Coast, Australia	55574191781	Australia	1	64	3	https://orcid.org/0000-0002-0676-1623
3	Bhattachary, Sonali	Symbiosis Centre for Management and Human Resource Development, Pune, India	55451798400	India	1	51	2	https://orcid.org/0000-0003-3069-1976
4	Canddell, Martha	Heriot-Watt University, Edinburgh, United Kingdom	8630833400	United Kingdom (UK)	1	1	1	https://orcid.org/0000-0002-3530-1060
5	Chan, Jason K.Y	College of Professional and Continuing Education, The Hong Kong Polytechnic University, Kowloon, Hong Kong	23990051100	Hong Kong	1	4	1	https://orcid.org/0000-0001-9956-1841
6	Chen, Yujuan	Research Center for Education Management and Policies, Ningbo University, Ningbo	57366407300	China	1	8	1	https://orcid.org/0000-0002-9519-1502
7	Coelhoso, Pedro	HCT, Abu Dhabi, United Arab Emirates	57151227000	United Arab Emirates	1	29	1	https://orcid.org/0000-0001-5761-4204
8	Dakich, Eva	University of Melbourne, Melbourne, Australia	37103909800	Australia	1	6	1	https://orcid.org/0000-0002-1435-4788
9	Ding, Shujing	Universitat Autònoma de Barcelona, Cerdanyola del Valles, Spain	55821604500	Spain	1	2	1	https://orcid.org/0000-0001-8911-7552
10	Alnaji, Loay A	College of Business, Al Ain University of Science and Technology, Moorpark, United States	56052031500	United States	1	3	1	https://orcid.org/0000-0001-8911-7552

Themes) represents themes that have high centrality and high density, namely *employability*, *high education,* and *internship*. The keywords identified according to the theme of this research are shown in Figure 8.

3.1.12. Co-citation analysis

Co-citation analysis is a bibliometric method used to identify relationships between documents based on citations along with other documents. This involves analyzing which documents are often cited together by other authors, to show a conceptual or topical relationship between the two. In this study, the articles cited usually have the same theme. The network of co-citation authors cited is shown in Figure 9. The minimum number of citations from an author is 3. The networks between authors that meet the threshold and have the strongest relationships.

Word cloud analysis is a technique used to visually represent the frequency of words in a specific text or data set. Word cloud analysis is displayed in various sizes based on frequency and importance.

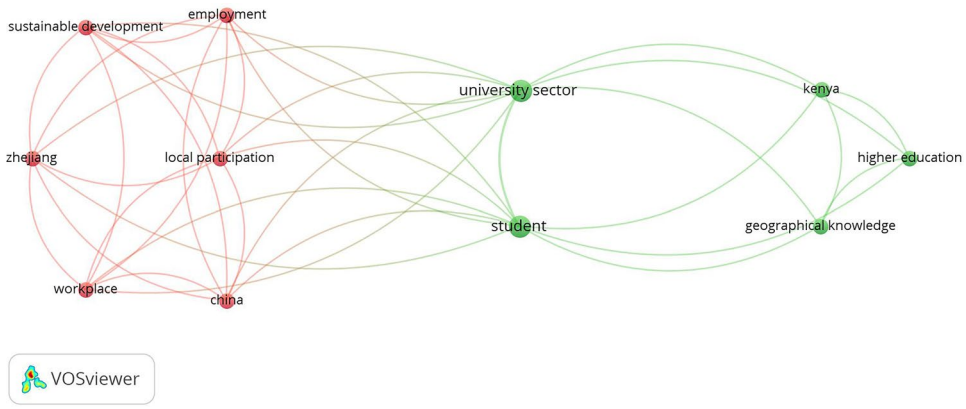

Figure 6. Analysis of the keyword.

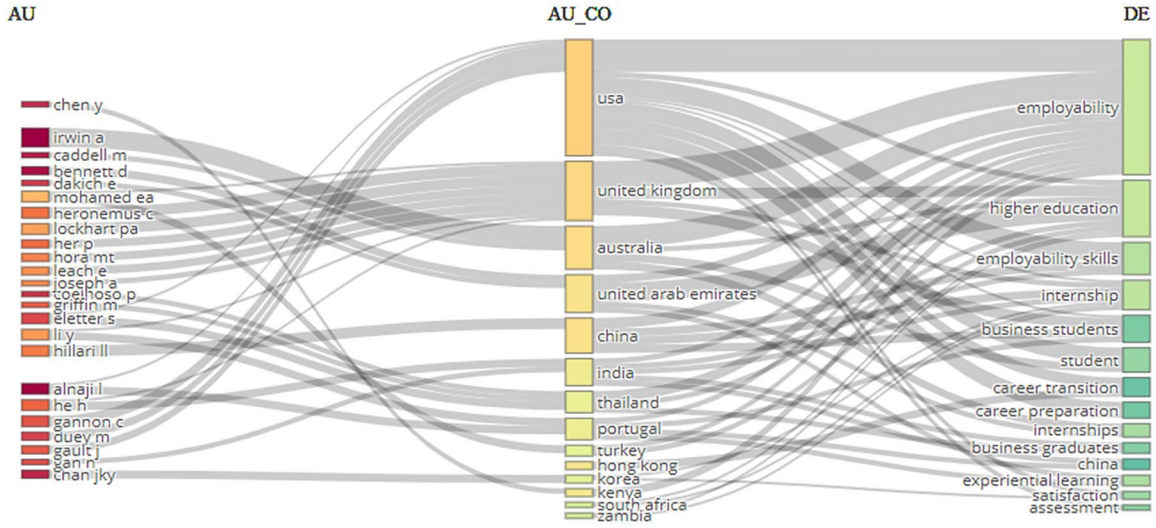

Figure 7. Three field plots of keywords author country.

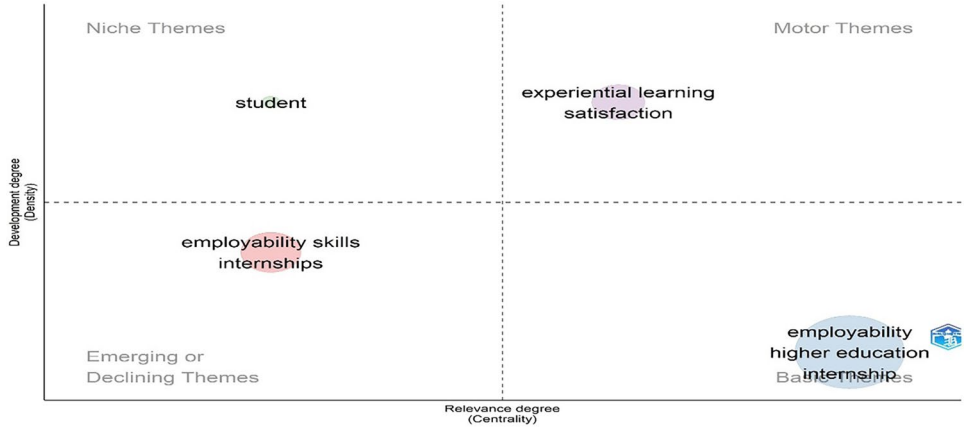

Figure 8. Thematic map.
Source: Biblioshiny, 2023.

Frequently appearing words are larger and smaller words appear less frequently. This researcher can find the most relevant articles about internship experience and employability by using words or keywords such as higher education, employability, internship, experiential learning, employability skills, perceived

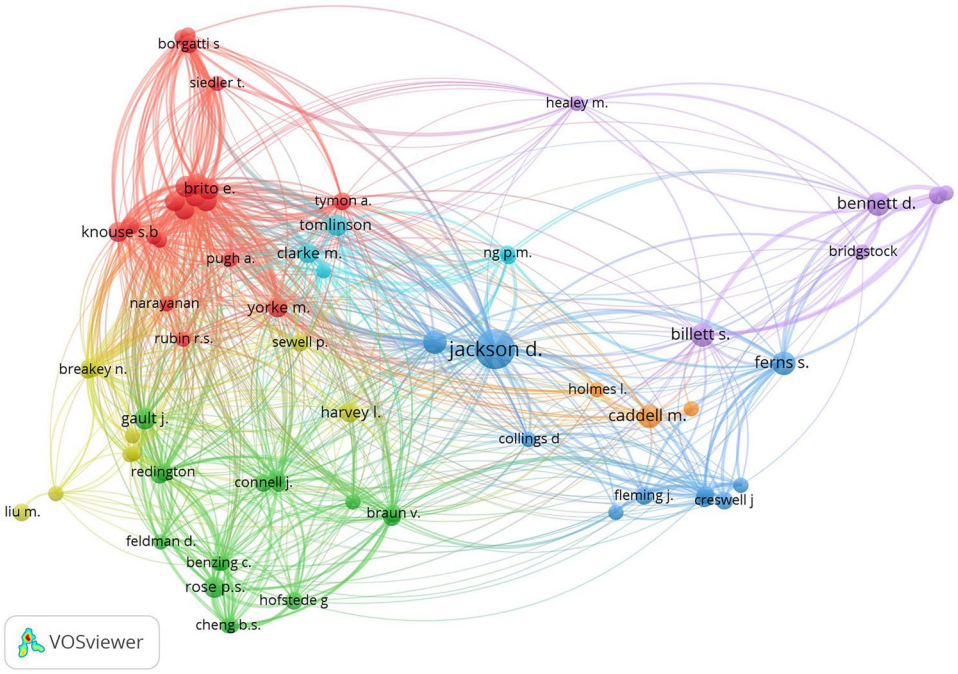

Figure 9. Analysis of the keyword.

Figure 10. Word cloud analysis.
Source: Biblioshiny, 2023.

employability, satisfaction, student, assessment, career adaptability, core competency, human resources, global knowledge, and collaboration (Figure 10).

3.1.13. Clusters for content analysis

Co-citation analysis to classify and categorize the structure of related comprehensive research on internship experience and employability. The analysis in this study was obtained using the criteria of connectedness, proximity, and page ranking based on the top 5 articles. All the details of this cluster are shown in Table 8.

Table 8. Top 5 papers in clusters using betweenness, closeness and page rank criteria.

Author	Betweenness	Closeness	PageRank
Cluster I			
jackson d	249.276206	0.00990099	0.10253132
braun v	2	0.00641026	0.03935991
yorke m	0	0.00735294	0.02811991
smith c	0	0.00423729	0.01355387
billett s	0	0.00423729	0.01355387
Cluster II			
silva p	121.596148	0.00917431	0.05282715
tomlinson m	29.7620788	0.00869565	0.05958891
tymon a	25.0537454	0.00854701	0.04490553
pinto lh	9.48181818	0.00819672	0.0494923
wilton n	5.05	0.00806452	0.04048411

Source: Biblioshiny, 2023.

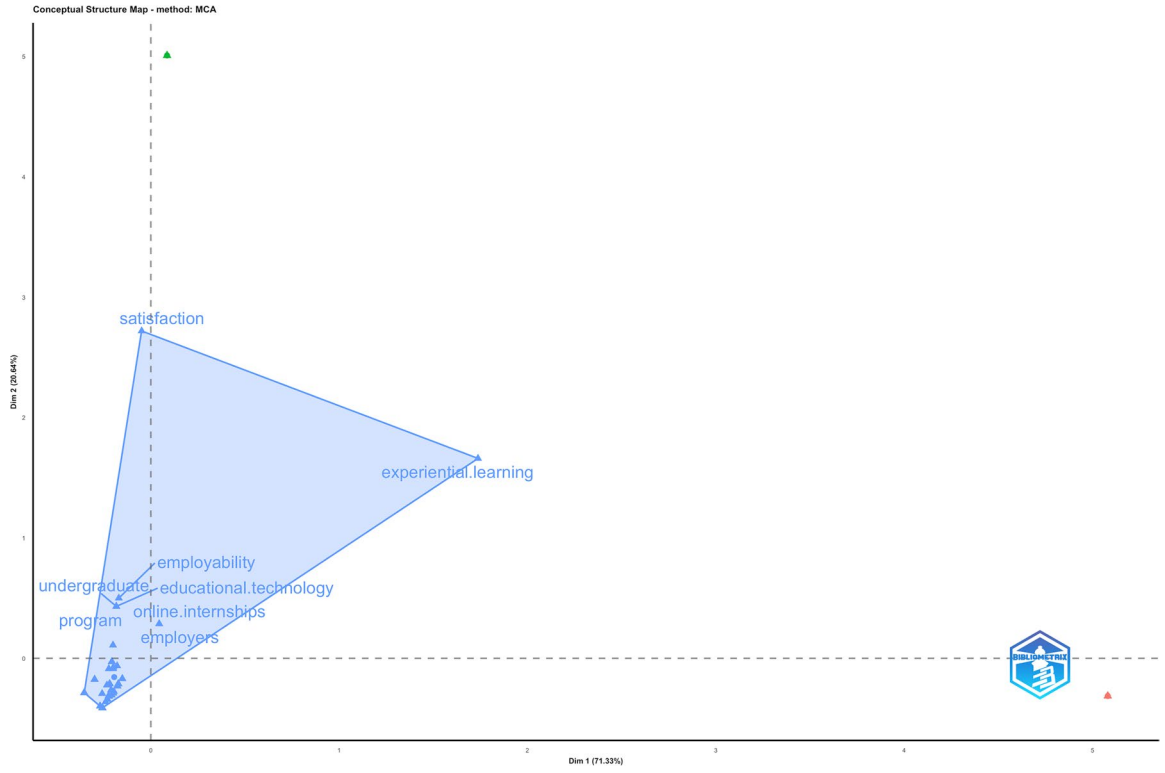

Figure 11. Conceptual structure map and keyword clusters using multiple correspondence analysis.
Source: Biblioshiny, 2023.

3.1.14. Conceptual structure map

Conceptual structure maps are used to organize and represent knowledge, clarify understanding, and facilitate learning and problem-solving. In this study, the conceptual structure map can arrange keywords to describe it as a group or cluster by using multiple correspondence analysis obtained satisfaction, experiential learning, employability, undergraduate, education technology, program, and employers (see Figure 11).

3.2. Results of the systematic review

The comprehensive literature obtained from the Scopus database is carefully reviewed to summarize the key findings from the current literature review and to discover key dimensions related to employability achieved by students through the internship experience. Finally, the dimensions and indicators are synthesized and recapitulated in proposing a comprehensive conceptual framework to help governments,

policymakers, practitioners, and researchers as an important role in understanding related to internship experience in improving employability. Literature reviews make various contributions to employability through internship experiences. With employability, the internship experience has an important role in strengthening *student satisfaction, experiential learning, internship programs, and employers*. These four aspects contribute and are integral to a student's career success (Sukmawati et al., 2019; van Vianen et al., 2019).

Through the internship experience, the main dimensions in improving employability are student satisfaction, experiential learning, work programs, and employers (Cannon & Geddes, 2019; Chen et al., 2018; Helyer & Lee, 2014; Hora et al., 2020; Jain et al., 2023; Prušević Sadović et al., 2023). The employability framework that can be achieved through the internship experience, is shown in Figure 12.

3.2.1. Student satisfaction

Satisfaction in this case can be linked to student satisfaction related to the internship experience. Student satisfaction is an assessment of students' experiences during education from a short-term perspective (Elliott & Healy, 2001). Student satisfaction is also defined as the attitudes and feelings that arise after students evaluate the results of work in various aspects of learning based on educational services (Juan & Nair, 2022). Student satisfaction with the internship experience is important for the students themselves. However, students' assessment of the quality of educational services received is not the main thing in student satisfaction (Wong & Chapman, 2023). In addition to the quality of educational services, student satisfaction is also influenced by learning outcomes, image, and value perception (de Oliveira Silva et al., 2020). The cognitive aspect includes the ability to think critically and analytically, innovation and problem-solving are creative aspects and the professional stimulation aspect includes skills and motivation to succeed in a professional work environment (Griffioen et al., 2018).

Employer support and perceived social values have a significant effect on internship satisfaction based on research results (To & Lung, 2020). Results (Zhao et al., 2022) showed that the quality of service, supervisor support, clarity of duties, and perceived value had a significant effect on the satisfaction of

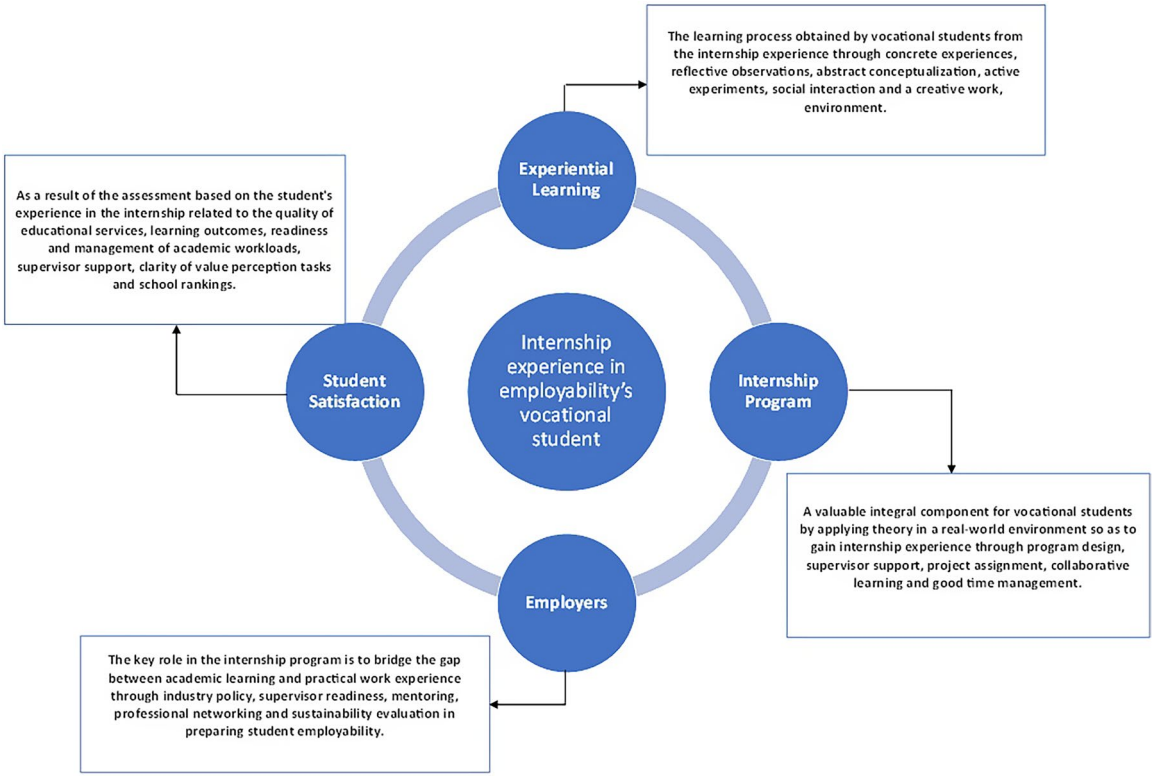

Figure 12. Internship experience in employability's vocational student framework.
Source: Authors.

art student internships, with service quality having the greatest impact. Therefore, universities and internship sites should focus on improving the quality of service, providing skilled supervisors, providing higher clarity of duties, and prioritizing the values of educational internship programs to ensure student satisfaction. Internship programs in higher education help students apply knowledge from the classroom to practice. Internship satisfaction is assessed from individual factors, job characteristics, organizational environment, contextual factors, and career potential. Internship experience is also important for developing interpersonal skills, problem-solving, confidence, and job market knowledge. This research is expected to help develop a better internship program, although the methodology still needs to be improved (Ruslan et al., 2021). Student satisfaction still needs to be improved, especially related to facilities and job prospects. Factors that affect their satisfaction include region, university ranking, funding status, academic grades, willingness to apply, and educational internship experience (He et al., 2023). According to Eletter et al. (2017), student satisfaction with the internship experience is greatly influenced by positive experiences, skill improvement, and a clearer view of the job. Where these factors can have implications in increasing graduate employability.

According to de Oliveira Silva et al. (2020), the practical implications include the potential for curriculum revision, adjusting the curriculum to better align with the needs of the labor market, and ensuring that graduates have the relevant skills and are needed by the industry. Monitoring and quality improvement, developing mechanisms to monitor and improve the quality of the education system on an ongoing basis, taking into account feedback from students and their employability outcomes. Thus, focusing on these factors can help to increase student satisfaction and ensure that the education provided is relevant and beneficial for their future careers.

Student satisfaction in vocational education has a significant impact on educational policies and practices. High levels of satisfaction encourage improvement in the quality of services, including facilities and infrastructure, as well as teacher performance through training and professional development. In addition, curriculum policies can be adjusted to be more relevant to the needs of the industry and students' interests. Satisfying hands-on experiences also improves students' job readiness, while parental support for their child's education can be strengthened by involving them more deeply in the educational process. All of this contributes to a better learning environment and more optimal educational outcomes. Table 9 lists the indicators of student satisfaction identified from the existing literature.

3.2.2. Experiential learning

Experiential learning is a learning process that occurs through direct experience and reflection on that experience. Experiential learning is one of the most productive ways to learn and acquire knowledge and skills through personal experience, reflection, and practical application of the concepts learned. Experiential learning is a learning process that occurs through direct experience and reflection on that experience. Experiential learning is one of the most productive ways to learn and acquire knowledge and skills through personal experience, reflection, and practical application of the concepts learned (Bradberry & De Maio, 2019). Challenge-based approach learning (Gallagher & Savage, 2023). According to Andreu-Andrés (2015), experiential learning emphasizes the importance of reflection on the challenges students face to acquire skills, knowledge, or attitudes toward experience. In addition, experiential learning is also defined as a hands-on approach that actively engages students in a real-world environment

Table 9. Indicators student satisfaction.

Dimension	Indicators	Reference
Student satisfaction	Quality of educational services	Wong and Chapman (2023); de Oliveira Silva et al. (2020); Zhao et al. (2023)
	Learning outcomes	de Oliveira Silva et al. (2020); Tomy and Pardede (2019); He et al. (2023).
	Academic readiness	Griffioen et al. (2018), Tomy and Pardede (2019).
	Academic workload management	Tomy and Pardede (2019)
	Supervisor support	Zhao et al. (2023); To and Lung (2020)
	Task clarity	Zhao et al. (2023)
	Value perception	de Oliveira Silva et al. (2020); Zhao et al. (2023)
	School rank	He et al. (2023)

(O'Flanagan & Jester, 2022; Tolhurst et al., 2023). Experiential learning involves not only cognitive but also emotional and physical aspects (Voukelatou, 2019).

According to Kolb and Kolb (2022), experiential learning involves four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. According to Leal-Rodríguez and Albort-Morant (2019). Literature exploration shows that there are four important elements for student learning in an experiential learning environment: action, reflection, social, and context which are key factors in learning development (Shore & Dinning, 2023). Experiential learning during the internship experience can enhance their professional and moral values through a creative work environment, dynamic workflow flexibility, and egalitarian work culture (Lantu et al., 2022). Therefore, experiential learning is a learning process that vocational students obtain from internship experiences through concrete experiences, reflective observations, abstract conceptualization, active experiments, social interactions, and a creative work environment.

In this context, learning does not only take place in the classroom, but also through practical activities such as internships, field research, and other practical projects (Seaman, 2019). Experiential learning in vocational education is obtained from internship programs, where students can learn directly to gain knowledge and employability through internship experience in the industry. Experiential learning has implications for curriculum development by adding learning activities that are experiential learning such as industry-based projects, and work simulations in relevant fields. This encourages more active cooperation between schools and industry to provide internship opportunities and collaborative projects. Studies show that experiential learning is effective in improving students' competence and job readiness, making it a valuable approach in vocational education (Clark et al., 2010; Waite, 2018). Table 10 lists the indicators of experiential learning identified from the existing literature.

3.2.3. Internship programme

Internship programs are a valuable opportunity for students to apply academic theory in real-life situations, gain relevant work experience, and prepare for a professional career in their intended industry. Through internships, students can develop practical skills, understand industry dynamics, and build professional networks that are essential for their future (Sihombing, 2021). The internship program provides students with a well-designed work experience, supportive supervisor support, and effective self-motivation and time management support (Baker & Fitzpatrick, 2022; Sellers et al., 2020), overcoming obstacles and providing opportunities for students in a fair manner (Renschler et al., 2023). Internship promotion programs can enhance students' innovative abilities, communication, problem-solving, value creation, and responsibility. The internship experience has a positive relationship between employability and the Internip Promotion Programme, while it can improve the quality of higher education and the sustainable development of students (Chen & Gan, 2021).

An internship program that is designed and scheduled effectively can reduce the gap between skilled workers expected by the industry (Ghosh & Jhamb, 2021). According to Jagadesh Kumar (2022), Internship programs can bridge the gap between college and the workplace by providing job training and preparing students for immediate employment. Pinto and Pereira (2019), provide evidence that internship experience is good information to add to your resume. Graduates' employability depends not only on the academic qualifications and skills they bring to the labor market but also on the value and relevance of domestic and international internship experiences

The internship program is also part of educational initiatives and strategies to benefit students, communities, and industry to develop employability towards work and learn directly in real projects through

Table 10. Indicators experiential learning.

Dimension	Indicators	Reference
Experiential learning	Concrete experience	Kolb and Kolb (2022); Fromm et al. (2021).
	Reflective observation	Kolb and Kolb (2022); Fromm et al. (2021); Shore and Dinning (2023).
	Abstract conceptualization	Kolb and Kolb (2022); Fromm et al. (2021).
	Active experiments	Kolb and Kolb (2022); Fromm et al. (2021).
	Social interaction	Shore and Dinning (2023).
	Creative work environment	Lantu et al. (2022).

selection, orientation, supervision, and evaluation (Sellers et al., 2020). Modernization of the internship program requires a focus on program design, career readiness, and stakeholder needs while incorporating collaborative learning, service learning, and personal goals (Noor Azizi & Kaur, 2023).

The challenges students felt before the internship were a lack of support, difficulties in planning, lack of interaction with staff, invisible evaluations, welfare disabilities, and professional identity. This is due to problems with educational background and cultural aspects so related training is needed (Ahmadi et al., 2020). Different internship programs can provide high impact and student satisfaction levels, with more challenging assignments and opportunities leading to increased personal, professional, and civic benefits (Wolinsky-Nahmias & Auerbach, 2022). In addition, the internship program highlights the importance of increasing student employability that can be transferred through internships for non-academic work paths as well as the academic curriculum (Kim et al., 2022; Stamati & Willmott, 2023).

This internship program as a whole can have implications for improving the quality of graduates. The implications of an internship program can practically be achieved by strengthening partnerships between vocational schools and industry. The active involvement of companies and industry organizations in the internship program helps identify competency needs that are appropriate for the world of work. By understanding the needs of the world of work, vocational schools can adapt the curriculum and prepare students with relevant skills. The need for productive teachers who are relevant to the department is also one of the important implications and needs to be considered by policy makers. Table 11 lists the indicators of internship programs identified from the existing literature.

3.2.4. Employers

Internship programs and curricula significantly enhance graduate employability (Kim et al., 2022). Employers and industry as employers are the main partners in work-based learning or what is called an internship program (Fischer & Kilpatrick, 2023). Employers are the main key in hindering and expanding access to vocational apprenticeships because employers have great power in the labor market, thus impacting minimum wage, immigration, anti-trust, and income determinants (Manning, 2021).

Employers highly value the competencies that students possess regarding key competencies such as social competence, emotional competence, action competence, responsibility, and resilience, which are valued by employers thereby enhancing their career success (Bai et al., 2022). Vocational high schools need to improve oral business communication skills, as employers emphasize these skills in their job descriptions (Batsila & Shrestha, 2022). Employers in policy have power and control over vocational education so education is highly dependent on employers (Köpsén, 2022). Kantová and Motyčka (2023), employer policy focuses on providing practical training opportunities that provide long-term relationships between students and industry, to encourage career development. Employers in the industry aim to strengthen relationships between schools by involving students in the internship process. Employers must ensure that the internship program runs successfully and is beneficial for the student's career development as a form of continuous evaluation.

The industry as an employer plays an important role in providing work-based learning through internship programs. In this case, employers are asked to increase their willingness to participate in and support learning in vocational education which ultimately encourages the improvement of job skills for vocational students. The e-mentoring program in the internship program provides great satisfaction with the program design, objectives, adequate training, professional level, and technological support. This satisfaction also shows the importance of training support and employer trust in creating attachment with interns, so that it can provide information about which elements of the program are accepted and the elements that need to be considered so that students feel satisfied in the future (Tinoco-Giraldo et al.,

Table 11. Indicators internship programme.

Dimension	Indicators	Reference
Internship Program	Supervisor support	Lam and Ching (2007); Sellers et al. (2020); Baker and Fitzpatrick (2022); To and Lung (2020).
	Program design	Noor Azizi and Kaur (2023); Baker and Fitzpatrick (2022).
	Project assignment	Sellers et al. (2020);
	Collaborative learning	Noor Azizi and Kaur (2023)
	Effective time management	Baker and Fitzpatrick (2022)

Table 12. Indicators employers.

Dimension	Indicators	Reference
Employers	Industrial policy	Köpsén (2022); Kantová and Motyčka (2023)
	Supervisor readiness	Salazar-Gómez et al. (2023);
	mentoring	Salazar-Gómez et al. (2023); Tinoco-Giraldo et al. (2022)
	Professional network	Teekens et al. (2023)
	Continuous evaluation	Kantová and Motyčka (2023)

2022). Vocational internship programs can foster mutual understanding through professional networks. It is important to focus on collaborative relationships to improve the quality of inter-professionals and suggest that employer organizations prioritize task interdependence in internship collaboration (Teekens et al., 2023). Table 12 lists the indicators of employers identified from the existing literature.

3.2.5. Future research directions

The internship program emerged as a response to the industry's need for a workforce that is ready to work with employability following the demands of the job market. These programs provide real learning experiences for young people, transfer a wide range of technical skills, and improve employability for students in the job market (Collins-Nelsen et al., 2022; Daniel et al., 2020; Lima et al., 2020; Patil et al., 2023). Employability is the most important factor in the growth of the global knowledge economy, and a range of achievements including skills, and understanding, as it can enhance personal attributes and individual values that are more valuable to organizations and the opportunity to find work throughout their working lives (Huang, 2022; Loer Hansen & Daniels, 2023). Employability is not only a concern for individuals, but also a managerial imperative for companies, as it allows employees to remain attractive in the labor market and adapt to changing needs (Noël & Schmidt, 2022; Troshkova & Katane, 2023). Changing employer needs is essential to promote employability, improve job placement rates, and bridge skills gaps (Underdahl et al., 2023). Therefore, employability is very important for individuals, industries, vocational education, and the economy as a whole to be able to develop and improve employability.

Further research can investigate other relevant and significant factors into mediation or moderation that link between internship experience and vocational student employability. In addition, future research can also examine other causal factors, namely how 21st-century competence, psychological capital, internship satisfaction, and internship program effectiveness have correlations with each other to prepare vocational students for employability in entering the world of work (Carter & Youssef-Morgan, 2022; Tavener et al., 2021; To & Lung, 2020). Future research can be carried out by looking at how internship programs and students can affect internship satisfaction and experiential learning can be further studied (To & Lung, 2020). How the internship experience can enhance competitiveness and skills that are considered important by the industry thereby strengthening the link between the internship program and the increase in employment opportunities for interns (Gault et al., 2010). How the internship experience affects the perception of vocational school students about the skills needed in the world of work (Griffin & Coelhoso, 2019). How does the vocational student-oriented internship program impact their employability to enter the job market, as well as what factors affect the internship experience to be able to increase added value for students, with an experiential learning context approach (Hora et al., 2020)? In addition, further research can be conducted to examine the impact of student internship experience on vocational student employability using a game-based methodology (Predovic et al., 2022).

4. Conclusion

A few years earlier, several articles related to employability and internship experience had been released. The current study conducted a bibliometric analysis and a systematic review of reviews to see the impact of the internship experience on employability. The analysis revealed that Amy Irwin, Joy Perkins Leah Luise Hillari, and Darja Wischerath were the most prolific authors, while Jack Gault, Evan Leach, and Marc Duey were the most cited authors in the field of internship experience and employability. *Jurnal Higher Education, Skills and Work-Based Learning, journal Education and Training dan Jurnal Higher Education* is the most contributing source in this field of research. Most of the research papers in this field come from

the *United States, China,* and followed by the *United Kingdom*, this study reveals that internship experience is very important in achieving multidimensional employability improvement in supporting the reduction of the unemployment rate.

The contribution of this research can provide a conceptual framework for the dimension of internship experience in the form of student satisfaction, experiential learning, internship programs, and employers for increasing student employability in vocational education. In addition, this study provides empirical evidence for improving and increasing vocational internship programs that are more effective and efficient in vocational education. The findings of this study are a significant input for stakeholders including governments, industry, educational institutions, non-profit organizations, and individuals, to play an important role in improving employability skills and employability. The implications of the internship experience in this study are the basis for reference for curriculum development policies that are relevant to industry needs in vocational education. In addition, policies on industry involvement and commitment as employers for changes in the design of internship programs, and the implementation of internship programs. This research also encourages policymakers to review general policies, as well as internship regulations to achieve sustainable employability improvement.

Acknowledgments

The authors would like to thank the editor-in-chief and reviewers for their valuable feedback; these suggestions improved the study's clarity, quality, focus, contribution, and scientific merit.

Authors' contributions

Didi Pianda, Hilmiana, Sunu Widianto, and Dina Sartika all made substantial contributions to various stages of this investigation. Didi Pianda was instrumental in the ideation, planning, and execution of the research, in addition to the data analysis and interpretation. Hilmiana made a significant contribution to the paper's composition, guaranteeing its intellectual content, while Sunu Widianto and Dina Sartika actively took part in the manuscript's critical revision. Collectively, the writers gave their final consent for the version to be published and committed to taking responsibility for every part of the work.

Disclosure statement

The research was conducted without any commercial or financial links that could be interpreted as a potential conflict of interest, according to the authors.

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Data availability statement

The dataset for this research originates from the easily accessible Scopus website, so the availability of data and materials can be provided if the reviewer requests it to support this study.

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