A Bibliometric Analysis of Indonesia Education Tourism

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Abstract

Educational tourism research developed within a few years. However, there are still few who provide a global picture of the concept. The purpose of this study is to identify trends in educational tourism as well as other scientific products over time, such as sources, authors, and types of documents. Bibliometric analysis was used to analyze a sample of 183 articles from Google Scholar published in 2023 Educational tourism is the main keyword used in article titles, abstracts, and keywords to obtain metadata retrieved from the Google Scholar bibliographic database, on Thursday, October 19, 2023. The tools used in bibliometric analysis are Microsoft Excel which is used to perform frequency analysis, VoS viewer for data visualization, and Harzing's Publish or Perish used for citation and analysis metrics. This study's results show that most related articles are published in scientific journals, compared to others. Related articles published in scientific journals have obtained the highest citations compared to others. Articles are also found in English. Based on network visualization the most dominant term (often appears) is "education tourism". When viewed from the Overlay Visualization, the topic of "education tourism" shows the latest trends in research related to "rural communities".
Keywords: Bibliometric analysis; Scientometrics; Education Tourism; VoS Viewer.

1. Introduction

Educational tourism or educational tourism is a program where tourists visit a tourist site with the main purpose of obtaining a direct learning experience at the tourist attraction (Rodger, 1998) in Sifa (2011). In addition to attracting tourists, educational attractions can also be used as an alternative to become a means of learning for the community and students.

Educational tourism activities can be in the form of various forms of activities depending on the focus of the purpose of the activity, ranging from learning general things that are interesting when traveling to tourist activities whose main purpose is learning. (Hermawan, Y., Hidayatullah, S., Alviana, S., Hermin, D., &; Rachmadian, A.) (2021).

The main purpose of educational tourism is to provide maximum satisfaction as well as new knowledge to tourists. Educational tourism is a program where visitors in tourist activities, especially children, travel in tourist areas with the main purpose of getting direct learning experiences related to the tourist areas visited. (Priyanto, R., Syarifuddin, D., &; Martina, S. (2018).

The role of education is also very important for community understanding with conscious guidance by education in physical and spiritual development for good things with the aim that the community can adjust to its role. (Sutiani, N. W. (2021). The tourist function can relieve fatigue with daily routine activities. Tourism can also increase knowledge if the tourist place provides educational facilities. Moreover, this education can increase my love for culture. (Sari, F. R. (2019).

Bibliometric analysis methods can help researchers and practitioners to have a holistic viewpoint and move forward to the next step to provide much better products and services for customers. Therefore, this study aims to clarify the extent of academic research (pradini, et al 2022)

The results of research on Educational Tourism have been produced by many other researchers, and the novelty of this work is different from previous works. This work focuses on exploring VoS as a tool to demonstrate bibliometrics of work on Google Scholar using a sample of 200, of which 183 will be selected in 2023. Therefore, this work presents a bibliometric analysis of Tourism Education. In short, this work aims to propose a bibliometric analysis of the Tourism Education model, describe matrix comparisons, provide data on the implementation of the year of publication, describe the types of documents, describe the types of sources, formulate and rank the 5 best citation data that contribute, formulate and sort the top five ranking data of publishers, formulate and sort the top five data of the dissertation topic, present the visualization of topics through use VoS Viewer, and formulate research location data that has been presented. Big data analysis has been widely used in decision support systems in tourism and hospitality. (Pradini, et al 2022)

This paper is structured as follows: in Part 2, we introduced the definition of Educational Tourism, bibliometric analysis, and the implications of Google Scholar as a provider of research data. Part 3 describes our proposed research methodology. Part 4 presents our results, followed by a full discussion. Lastly, we conclude our work and highlight future work in Part 5. This section describes the basic theories of travel-based education, bibliometric analysis, Google Scholar, and VoS Viewer software used in this study.

Bibliometric analysis is a model carried out by exploiting research data that has been published online about the number of publications and authors of scientific publications as well as the following articles with citations. (Pradini, et al 2022)

1.1. Education Tourism - 1 page

Education Tourism is defined as "involving intentional and explicit learning experiences". (Pitman et al, 2010:221). To be effective, it requires the active participation of educational tourists, an observation that competes with Paige and Vande Berg (2012). The attitude of travelers, in terms of desire to learn, was found to be more important to successful learning than any qualifications they might have. (McGladdery, C. A., &; Lubbe, B. A. (2017).

Educational tourism itself is one type of special interest tourism Classified according to certain motivations, usually related to time and hobbies And the pursuit of leisure, which is a combination of entertainment and education. Educational tourism is a type of tourist trip that aims to provide an overview, comparative research, or knowledge of the field of work he visits. This type of trip is also called a study trip or knowledge access trip, Nugraha, R. N., & Rosa, P. D. (2022).

Educational tourism is anything related to actions or experiences that have a formative effect on the character, mind, or physical abilities of an individual. (Ciptayani, P. I., Ayuni, N. W. D., Kariati, N. M., &; Adiaksa, I. M. A. (2022).

Bogor Botanical Garden Plant Conservation Center - Indonesian Institute of Sciences (PKT KRB – LIPI) is a favorite tourist destination with more than 800,000 visitors every year. The Botanical Garden, which has a diversity of plant collections with a complete landscape, is an ideal habitat for various species of birds. To determine its potential for the development of birdwatching tourism in PKT KRB - LIPI, research was conducted through literature studies, direct observations, and interviews between May and July 2013. Based on the results of the study, 48 species of 23 bird tribes can be found at the location. A total of 26 species from 18 bird tribes can always be found from previous studies to date, 10 species have never been reported before and nine species are evenly distributed in 12 environments in PKT KRB - LIPI. There are at least 25 potential types of birdwatching tourism based on visitor interest in certain bird species, conservation status, endemicity, and bird presence over time. (Sukara, G. N., Mulyani, Y. A., &; Muntasib, E. K. S. H. (2014).

1.2. Bibliometric Analysis

Bibliometric analysis is a model carried out by exploiting research data that has been published online about the number of publications and authors of scientific publications as well as the following articles with citations. The analysis aims to measure the research outcomes of individuals and/or research teams. Furthermore, the analysis can be used to identify networks of authors, nationally and internationally, and map the development of new multidisciplinary fields of science and technology. In addition, the analysis also helps in determining the latest research topics and trends that have rarely been studied before.

Bibliometrics is a set of mathematical and statistical methods used to analyze and measure the quantity and quality of books, articles, and forms of publication. In bibliometric network analysis, researchers often use mapping and grouping techniques in combination. Typically, however, mapping and grouping techniques used together rely on very different ideas and assumptions. (Effendy, F., Gaffar, V., Hurriyati, R., &; Hendrayati, H. (2021). The function of bibliometrics is none other than as evaluation material to assess a study, and procedural policies before conducting research and decision-making, (Ayu, F. A. P. (2020).

1.3. Google Scholar

Google Scholar is a service that allows users to search for subject matter in the form of text in various publication formats. Google Scholar is one of the indexing engines for papers, books, and other intellectual works that originate in publication format so that they can be integrated and easily traced and see the citation performance of each writing and its h-index, (Fadhilaturrahmi, F., Erlinawati, E., &; Ananda, R. (2020).

Google Scholar offers profiling for all researchers, experts, and speakers. The number of publications from academic institutions as well as detailed data on the publication of scientific articles can be accessed through Google Scholar.

1.4. VOS Viewer as a Research Tool

VoS Viewer is an application for building bibliometric maps. The purpose of VOS is to place items in low dimensions so that the distance between two items accurately reflects the uniformity or association of the data. VOS is to minimize the weighted sum of squared distances between all pairs of items. The square of the distance between pairs of items is weighed by the equation between those items. To avoid worthless solutions, where all items have the same location, limits are imposed so that the average distance between two items must be equal to one. Two computer programs have applied VOS mapping techniques. Both are available for free. A simple open-source program is available at www.neesjanvaneck. nl/vos/, and a more advanced program called VOSviewer (Van Eck and Waltman, 2010) are available on www.vosviewer.com. Both programs use the aforementioned variant of the SMACOF algorithm to minimize Equation 1 to Equation 2. This study uses paper publication data sourced from various journals with research themed on Education Tourism. The data was collected through tracing paper in the last 1 year, precisely in 2023. From the search results, 148 published articles were obtained. Data in the form of the number of journals published with Education tourism. The methodological approach and the top countries that are the object of research are analyzed using Microsoft Excel 2010.

2. Research Method

2.1. Research Objects

This paper adopts the method of analysis Bibliometrics consists of five stages, namely: Determination of keywords searched, initial search results, improvement of search results, compilation of initial data statistics, and data analysis. In this paper, we adopt a bibliometric analysis method consisting of five stages, namely: Determination of keywords searched, initial search results, improvement of search results, compilation of initial data statistics, and data analysis.

3. Results and discussion

Part 4 describes the results of this paper review, which includes publications and citations, visualizations, authors, and networks.

3.1. Publications and citations

Data search results using The PoP before the fix was 200 articles from the Google Scholar database. Then after improvement by reviewing the 148 articles carefully, 148 articles were obtained that were appropriate. A comparison of the data matrix in the initial search results and the search results after improvement can be seen in Table 1

Table 1. Matrix Comparison

Data	Initial Search Results	Repair Search Results
Database	Google Scholar	Google Scholar
Year of Issue	2023	2023
Year of Citation	1	1
Number of Articles	200	148
Number of Citations	154	154
Citation Year per Year	154.00	154.00
Number of Authors per Year	2.82	2.54
H Index	4	4
G index	132	12
hI Normal	2	2
hI Annual	2.00	2.00

From table 1 above, we found that within 1 year, namely since 2023 there are 200 articles with citations of 154.00 and the average number of authors per year is 2.82 people. Furthermore, we obtain or re-select the results by observing one by one articles related to edu tour. The articles obtained were 148 with the number of citations obtained 154 citations or an average of 154.00 per year and an average number of authors of 2.54 people each year. The index of measurement of productivity or impact of works that have been published by scientists or academics (Hirsch's h-Index) is 30. Furthermore, based on the distribution of citations received by publications or research articles (Egghe's g-Index) obtained as many as 50.

Table 2 below presents a more detailed description of Table 1 above.

Table 2. Year of Publication

Year	TP	h	g
2023	148	4	12

From Table 2 on the number of publications cited, we found the highest number of 148 articles with several citations of 154 with an H index of 4 and several G index of 15

Table 3. Document Type

Type	Sum	Percentage
Article	98	66,3%
Book	50	33,7%
TOTAL	148	100%

From Table 3 above, the types of documents we present are original documents derived from articles, journals, and books. From the search results, there are some articles that we can't access. We summarize in the description of Table 3 above that 66.3% of the total publications are 98 articles, and 50 books (33.7%).

Table 4: Source Types

Type	Sum	Percentage
Journal	98	66,3%
Book	50	33,7%
TOTAL	148	100%

From Table 4 above, it can be observed that the Journal is a document that gets above that of the total publications there are 98 journal articles, and 50 are in books (33.7%).

Tabel 5. Top 5 cited articles

No	Cites	Authors	Title	Year	Journal Name	Publisher
1	85	S Nadia, M Jumriani	10. Identification of The Process for Establishing Tourism Awareness Group (Pokdarwis) Kampung Banjar	2023	Kajian-Kajian Lokal Kalimantan Selatan	books.google.com

2	40	A Mawaddah, M Syaharuddin …	Extracurricular Activities PMR (Red Cross Teen) at Banua South Kalimantan Bilingual Boarding High School Makes Students with Character	2023	Diklat Review: Jurnal …	ejournal.kompetif.com
3	5	S Syamsuri, H Alang, MS Yusal…	Edukasi Pentingnya Kesadaran Terhadap Pencemaran Di Pesisir Pantai Kayuangin Kecamatan Samaturu Kolaka	2023	Jurnal Abdimas …	jabb.lppmbinabangsa.id
4	4	A Alfiana, LS Mulatsih, S Kakaly…	Pemberdayaan Masyarakat Dalam Mewujudkan Desa Edukasi Digital Di Era Teknologi	2023	Community …	journal.universitaspahlawan.ac.id

| 5 | 3 | D Anggraeni, F Ali, PC Kurniawan... | Edukasi "Halal Food" Pada Pelaku Usaha Micro Kecil Menengah (UMKM) di Desa Kedawung Banyuputih Batang Jawa Tengah | 2023 | Jurnal Pengabdian ... | ejournal.sisfokomtek.org |

From Table 5 above, if we look at the top 5 articles that have the most citations (1) Identification of The Process for Establishing Tourism Awareness Group (Pokdarwis) Kampung Banjar, written by S Nadia, M Jumriani with books.google.com publisher as many as 85 citations. (2) Extracurricular Activities PMR (Red Cross Teen) at Banua South Kalimantan Bilingual Boarding High School Makes Students with Character, written by A Mawaddah, M Syaharuddin with publisher ejournal.kompetif.com 40 citations. (3) Education on the Importance of Pollution Awareness on the Coast of Kayuangin Samaturu Kolaka District, written by S Syamsuri, H Alang, MS Yusal with jabb.lppmbinabangsa.id publisher as many as 5 citations. (4) Community Empowerment in Realizing Digital Education Villages in the Age of Technology, written by A Alfiana, LS Mulatsih, S Kakaly with the journal.universitaspahlawan.ac.id publisher as many as 4 citations. (5) Education "Halal Food" for Micro, Small and Medium Enterprises (MSMEs) in Kedawung Village, Banyuputih, Batang, Central Java, written by D Anggraeni, F Ali, PC Kurniawan with ejournal.sisfokomtek.org publisher as many as 3 citations

Tabel 6. Jurnal peringkat lima teratas yang berhubungan dengan topik disertasi anda

No	Nama Journal	Jumlah Artikel	Persentase
1	Kajian-Kajian Lokal Kalimantan Selatan	1	20%
2	Diklat Review: Jurnal ...	1	20%
3	Jurnal Abdimas ...	1	20%
4	Community ...	1	20%
5	Jurnal Pengabdian ...	1	20%
	Total	5	100%

Based on Table 6, it can be seen that the Journal of South Kalimantan Local Studies, Training Review: Journal, Abdimas Journal, Community, and Community Service Journal with a percentage of 20% each. We took the topic "Education Tourism" because there are still few other writers taking this theme. The authors then display the data according to the ranking of the relevant top publishers as presented in Table 7 below.
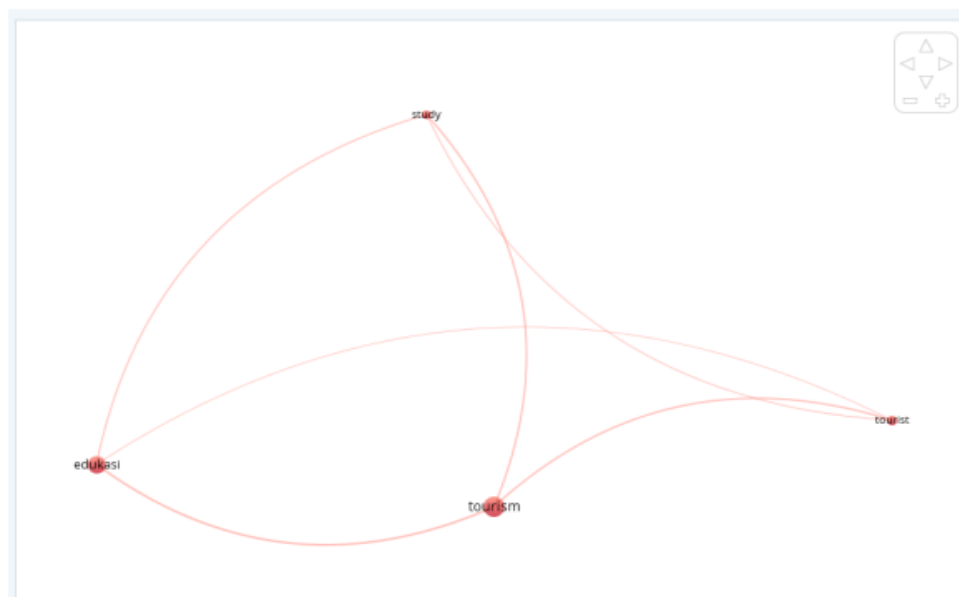
Table 7. Top five ranked publishers who publish articles related to your dissertation topic

No	Penerbit	Jumlah Artikel	Persentase
1	books.google.com	1	20%
2	ejournal.kompetif.com	1	40%
3	jabb.lppmbinabangsa.id	1	20%
4	journal.universitaspahlawan.ac.id	1	20%
	Total	5	100%

Based on Table 7, publishers books.google.com as many as 1 article (20%), ejournal.kompetif.com as many as 2 articles (40%), jabb.lppmbinabangsa.id as many as 1 article (20%), and journal.universitaspahlawan.ac.id as many as 1 article (20%).

3.2. Visualization of topics using VOS Viewer

Figure 2 below shows the results of the plot with VOS Viewer for visualization of the topic of the research area related to "Education Tourism".

Gambar 3. Visualisasi topik area menggunakan network visualization

Figure 3. From Figure 3 above, it can be seen that the topic of "education tourism" is related to "tourism", "education", "tourist", and "study".
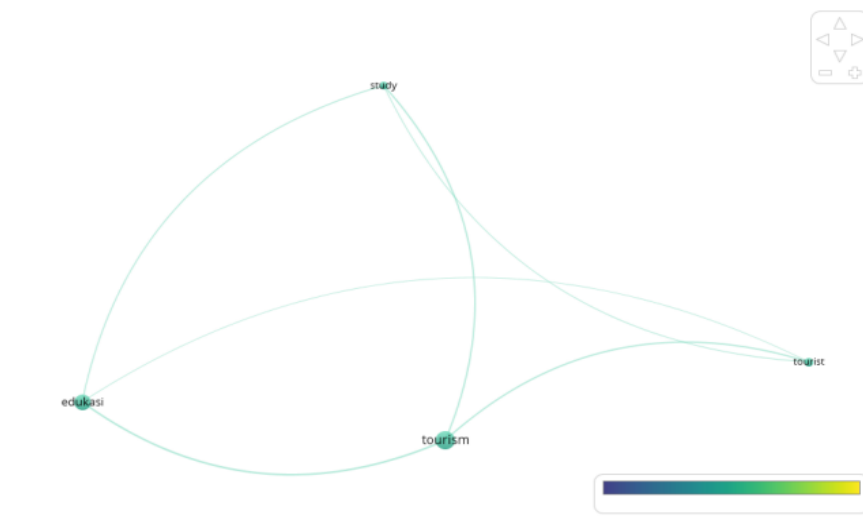
Table 8 presents keywords that represent each cluster in VOS Viewer

Table 8. Keywords that represent each cluster

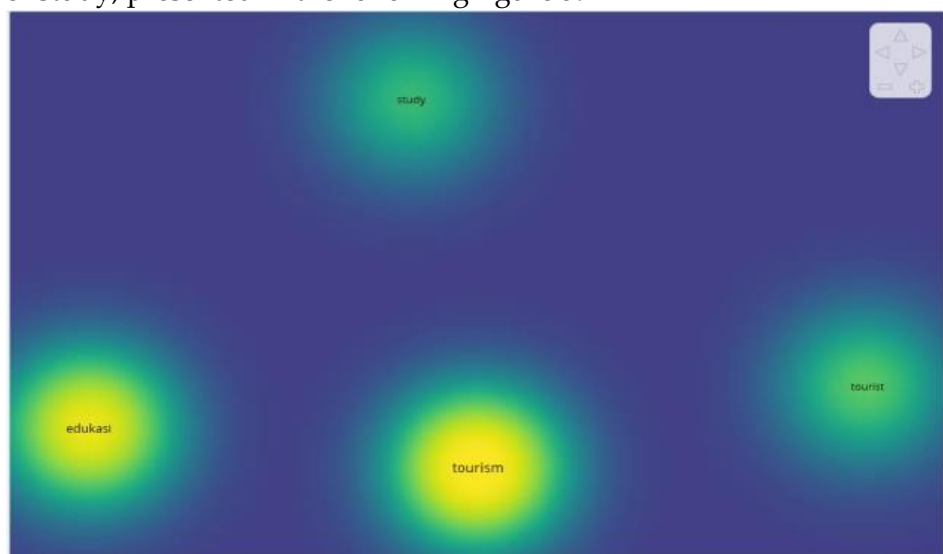| Cluster	Items	Elemen
1	4	1. Tourism 2. Edukasi 3. tourist 4. Study

From Table 8 above, the number of clusters formed is 4 with each term in it tourism, education, tourist, and study.

Furthermore, Figure 4 below presents a visualization of the topic area based on overlay visualization.

Gambar 4. Visualisai topik area menggunakan overlay visualization
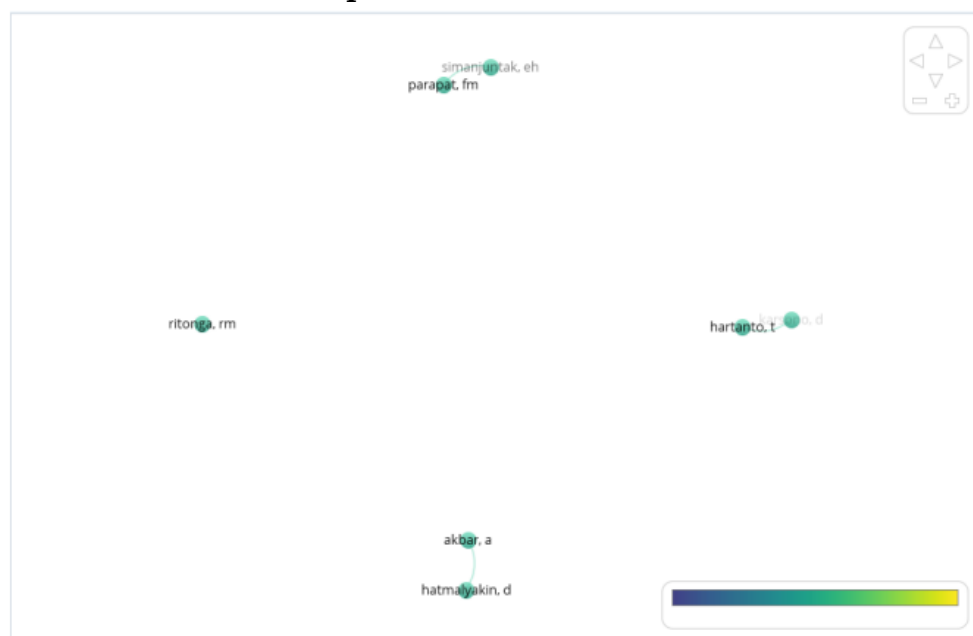
From Figure 4 above, it can be seen that the topic of "education tourism" is related to "Tourist", "Tourism", "Education", and "Study". Next Figure 5 shows the density (density) related to the topic under study, presented in the following figure 5:

Gambar 5. Visualisasi topik area menggunakan *density visualization*

When viewed from the density (density) of research on topics related to "education tourism" marked in yellow. Based on this, the density with yellow indicates From Figure 5 above, the density (density) with yellow indicates "tourist". Meanwhile, other topics such as "tourism", "education" and "Study" are still rarely studied related to "education tourism".

3.3. Authors and Relationships Between Authors

Gambar 6. Visualisasi overlay penulis dan co-author

From Figure 6 above, the most prominent involvement between authors is Hartanto. T, Parapat, Fm with his co-authorship is Karsono, d, Simanjuntak eh, Akbar, A, Hatmalyakin, d, Ritonga, Rm. The results of this research from Hartanto T received 84 citations. This indicates that the research has become a reference journal for other authors. 4.4 Research Location and Research Domain To find out the distribution of countries, the number of articles and research domains on the topic of education tourism, presented in Table 9 below:

Table 9. Country of research location and research domain

No	Negara	Jumlah Artikel	Domain penelitian
1	indonesia	148	Tourism dan edukasi
TOTAL		148	

Based on Table 9 above, the most education tourism research locations in Indonesia with tourism and education research.

4. Conclusion

Education tourism has been studied a lot before. This paper has succeeded in presenting a bibliometric analysis related to education tourism. We found that the majority of related articles were published in scientific journals, compared to others. Related articles published in scientific journals have obtained the highest citations compared to others. Articles are also widely found in English. Based on network visualization the most dominant term (often appears) is "education tourism". When viewed from the Overlay Visualization, the topic "education tourism" shows the latest trends in research related to "education". The suggestion

conveyed is: that in future research, it needs to be studied more widely and more samples or using data that is not from Google Scholar.

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