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Waqf For Higher Education: A Bibliometric and Systematic Literature Review (2012–2024)

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ABSTRACT

Purpose:

This article examines the development of waqf for higher education studies from five perspectives: (1) research development and distribution; (2) research topics; (3) main contributors; (4) recent collaboration patterns; and (5) most influential documents in waqf for higher education literature.

Design/Methodology:

This study involved a comprehensive bibliometric analysis and a systematic literature review, which were utilized to examine 162 documents related to waqf for higher education that were published between 2012 and 2024. The data processing was facilitated by Publish or Perish, Microsoft Excel, and VOSviewer software.

Findings:

Despite the long-standing existence of waqf literature, the focus on waqf for higher education was not identified until 2012 (RQ1). We identified eight distinct clusters of research topics: community welfare, waqf models for higher education, waqf in Malaysia, good management, practice, alternative sources, cash management, and waqf knowledge (RQ2). A subsequent analysis of the authorship and affiliation patterns revealed a preponderance of researchers based in Malaysia across all categories (RQ3, RQ4, RQ5).

Practical Implications:

Future research topics on waqf for higher education should be limited to conceptual studies or literature reviews, with a focus on best practices in universities, collaborative financing or subsidies, waqf sustainability, and waqf in the Western world.

Originality/Value:

This article boasts a more extensive database than previous studies, thus ensuring a more robust foundation for future research. Moreover, given the paucity of literature on the subject, it is imperative to continue documenting the evolution of waqf for higher education literature.

Keywords: Educational waqf, Higher Educational Institutional, Bibliometric analysis, Literature review.

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A. INTRODUCTION

The term "waqf" is understood to denote the transfer of personal property to third parties for the benefit of the public (Harpepen & Yustati, 2025; Syakir, 2016). The concept of waqf is articulated within the Qur'an, specifically in Surah al-Hajj verse 77 and Ali Imran verse 92. Historically, the practice of waqf emerged during the migration of the Prophet Muhammad SAW to Medina in 622 A.D. The historical record indicates that the Prophet procured a tract of land measuring 25.75 x 27.33 m2 for the construction of the inaugural mosque of the Muslim community, designated as the Quba Mosque (Azmi, 2020; Qahf, 1995). Subsequently, the practice of waqf was adopted by the Companions and subsequent generations, contributing to the development of Islam and the enhancement of human civilization, including the field of education. A substantial body of research has examined the pervasive role of waqf in financing

education, as evidenced by numerous studies (Kharomah et al., 2023; Majeed & Zanib, 2016; Mujani et al., 2018; Rusydiana et al., 2021). A notable exemplar is the University of Al Azhar in Egypt, which has demonstrated its capacity to sustain and flourish through waqf funds (Kasdi, 2018; Mahadi Ahmad & Yakubu Hassan, 2015). In recent decades, the development of waqf is also linked to modern instruments such as waqf shares. For example, the *Wassam* program has proven effective in improving students' literacy in waqf-based stocks (Harpepen & Yustati, 2025). Furthermore, Islamic financial instruments, including waqf, are increasingly recognized as alternatives to address economic challenges through financial inclusion and institutional quality (Asnaini et al., 2023).

In numerous academic institutions, waqf has assumed a pivotal role, as evidenced by Usman and Ab Rahman (2023), who underscore that waqf initiatives in Malaysia not only generate revenue but also foster human resource development, thereby promoting inclusivity within the educational milieu. In Indonesia, a distinctive practice of waqf management has emerged, providing financial support to Darussalam Gontor University. This practice aligns with the findings in the Arab context, which document the historical evolution of waqf institutions into higher education institutions, such as al-Qarawiyyin University, exemplifying the role of waqf in the establishment of educational institutions (Arab & Zakariyah, 2023). Initiatives such as these are imperative to enhancing access to education for marginalized groups.

A comprehensive understanding of waqf management practices for higher education is imperative. A recent decade has witnessed a notable surge in literature concerning waqf in higher education. However, a substantial proportion of this literature exhibits redundancy, particularly in reviews of concepts, Malaysian practices, and waqf financing. Consequently, there is a necessity for a bibliometric study and a visualization map to elucidate the intricacies of this subject. It is noteworthy that bibliographic studies and systematic literature reviews on waqf education have been conducted (Rusli et al., 2023; Rusydiana et al., 2021). However, there are only three studies that focus on Waqf of Higher Education: Bakarat (2014), Musthofa & Huda (2014), and Yusuf, Rahman & Komarudin (2022). The sustained interest among researchers in this subject has resulted in a proliferation of publications encompassing bibliometric analyses and literature reviews. However, a review of existing studies reveals several limitations. These include a paucity of databases, an exclusive focus on waqf financing, a narrow geographical scope confined to Malaysia, and outdated data. In addressing these shortcomings, this article aims to provide a comprehensive and up-to-date overview of waqf education.

The objective of this study is twofold: first, to present the bibliometric results and visualization map of waqf research in higher education; and second, to address the paucity of publications on this subject by systematically responding to five research questions, namely: the current state and distribution of waqf research in higher education, the dominant research topics, the main contributors to the literature, the most influential documents, and the existing patterns of collaboration in this field.

B. LITERATURE REVIEW

1. Waqf for Education Financing

Historically, waqf has played an instrumental role in the financial support of educational institutions and the advancement of education within Muslim communities (Abiba

& Suprayitno, 2024; Dahlan et al., 2025). As Usman (2022) observes, numerous esteemed educational institutions, including Al-Azhar University in Egypt and the Nizhamiyah Madrasah in Baghdad, were founded on waqf lands, underscoring the enduring tradition of utilizing waqf for educational endeavors. This historical context underscores the efficacy of waqf as a funding mechanism and its role in cultivating a culture of learning and scholarship within Islamic society. The extant literature reveals that waqf not only supports the establishment of educational institutions but also ensures their sustainability through various funding mechanisms.

Kharomah et al. (Kharomah et al., 2023) further emphasize that waqf has been instrumental in financing operational activities, providing salaries for educators, and offering scholarships to students, thereby fostering a comprehensive educational environment conducive to learning and growth. This multifaceted support underscores the pivotal role of waqf in maintaining education standards and accessibility, particularly in areas where government funding may be inadequate. Rohmana (2024) underscored the potential of waqf to generate sufficient funds for higher education institutions in various countries, emphasizing its role as a financial instrument that enables educational institutions to expand their reach and improve their quality. This potential is particularly relevant in the context of developing countries, where access to quality education remains a significant challenge.

In the Indonesian context, waqf practices also demonstrate unique characteristics. Isnaini (2023) highlights the role of waqf among the Rejang community from a maqasid shariah perspective. At the institutional level, (Wahyuni et al., 2023) propose a halal center model at UIN Fatmawati Sukarno Bengkulu as a research-based approach that resonates with the development of waqf for higher education. Methodologically, scientometric analysis in Islamic economics further confirms the growing trend of publications, which supports the bibliometric results of this study (Dasril et al., 2023).

The advent of cash waqf as a contemporary funding paradigm represents a substantial development in the realm of waqf financing for higher education. The predilection for cash waqf stems from its liquidity and ease of management, which enables more effective channelling of funds toward educational initiatives (Fatoni, 2021). This model not only facilitates the financing of educational institutions but also supports a range of social services, thereby contributing to the development of the broader community. The adaptability of cash waqf renders it a compelling alternative for funding educational initiatives, particularly in contexts where traditional waqf assets may be scarce or underused. In Malaysia, the pioneering implementation of cash waqf has been acknowledged as a promising model to support higher education (Sani et al., 2022). This model not only provides a sustainable source of funding for educational institutions but also contributes to the nation's broader economic development.

2. Bibliometrics Analysis

Bibliometric techniques are generally employed to evaluate scientific outcomes and the impact of research in various fields (Broader, 1987; Ellegaard & Wallin, 2015). These techniques involve the application of statistical methods to assess the characteristics of scientific publications, including citation patterns, authorship, and publication trends. This approach offers insights into the intellectual landscape and provides a framework for guiding future research initiatives (Bai et al., 2023; Sarpong et al., 2023). Hallmark of bibliometric studies is the analysis of citation rankings within a scientific domain. This metric is frequently utilized to assess the influence and reach of a specific study within the academic community

(Hunt et al., 2024). Citation counts can be further refined through various normalized metrics, such as the h-index, which measures the productivity and citation impact of an author by considering the number of publications that have received a certain number of citations (Alexander & McLaughlin, 2019). The h-index is valuable because it balances quantity with quality, providing a more nuanced view of an author's contribution to the field (Cano et al., 2023).

Bibliometric indicators are quantitative measures employed to evaluate and analyze the scientific literature, thereby providing insight into various aspects of research productivity, impact, and trends. These indicators are important tools in bibliometric analysis, allowing researchers and institutions to assess the performance of individual researchers, groups of researchers, or entire fields of study. Common bibliometric indicators include the citation count, h-index, g-index, and impact factor, each of which serves a different purpose in the evaluation of scientific output (Aksnes et al., 2019). Durieux and Gevenois (2010) divided bibliometric indicators into three categories: quantity, quality, and structural. Quantity indicators are defined as measures of researcher productivity, with the number of citations or annual citations, h-index, and citation score serving as proxies for this metric. Research quality indicators can also be seen from publication impact (IPP) and impact factor (IF). Structural indicators refer to the relationship between publications, authors, and research fields. These indicators can also be measured by analyzing co-authorship, co-citation, and bibliographic merging (Eck & Waltman, 2017; Van Eck & Waltman, 2013).

C. METHOD

1. Data Sources

This research employs a quantitative method with a bibliometric approach (Donthu et al., 2021; Eck & Waltman, 2017; Mukherjee et al., 2022). The primary references utilized in this study were Scopus, Semantic Scholar, and Google Scholar. Scopus is the preferred option due to its high academic quality (Martín-Martín et al., 2018), sophisticated search functionality (Gusenbauer & Haddaway, 2020; Wahid et al., 2020), and comprehensive evaluation encompassing editorial judgment, publishing schedule, international diversity, and article impact (Baas et al., 2020; de Oliveira et al., 2024). Semantic Scholar, a component of a more extensive database ecosystem that extends beyond the purview of PubMed (Jean-François et al., 2013), offers researchers the capability to filter data based on relevance (Lo et al., 2020; Smail et al., 2023). This study leveraged Google Scholar to procure exhaustive data concerning waqf for higher education. Google Scholar has been acknowledged for its substantial, comprehensive, and well-documented nature. This extensive coverage enables researchers to access a more diverse range of academic works, including international publications that are often overlooked (Kalcioglu et al., 2018). The use of these three databases was judged to be close to the entire 396 outstanding articles based on predefined keywords.

2. Data Collection

The present study encompasses documents in the following formats: articles, proceedings, reviews, book chapters, and books. Three keywords were determined: These were determined through a comprehensive analysis of the Scopus, Semantic Scholar, and Google Scholar databases. The keywords in the Publish or Perish (PoP) software were designed to detect every document abstraction. This process yielded a set of documents that were not directly related to the subject of waqf in higher education. The filtering process was

meticulously executed to ensure that the resulting documents were exclusively those that were pertinent to the designated theme. The temporal parameters were not defined during the search process for keywords in the database. This approach was adopted to ensure the acquisition of comprehensive data. The outcome of this process was the retrieval of 138 articles from Scopus, 82 from Semantic Scholar, and 159 from Google Scholar. A total of 17 articles from Emerald were identified as having a significant impact on the subject matter of interest. The flow of include and exclude data is illustrated in Figure 1.

3. Data Analysis

The data retrieved using PoP was subsequently saved in CSV (Comma Separated Values) format. The 396 documents were processed through three filtration steps. Initially, the three databases were consolidated into Microsoft Excel and manually curated to identify similar articles, leading to the elimination of 69 articles. This was due to the possibility of an article being indexed across multiple databases. Secondly, article elimination was conducted by scanning the title, abstract, and conclusion to ensure that the articles discussed waqf for higher education. Consequently, 153 articles were removed, leaving 174 articles. Finally, all data were completed, including author name, affiliation, author country, full article title, country discussed in the article, document type, source of document type, and journal/proceeding publication name. During the search, 12 articles were found to be inaccessible or the website could not be located, leaving 162 documents for analysis to address the three research questions: RQ1, RQ3, and RQ4. Regarding RQ2 and RQ5, which pertains to the topics or study trends and visualization map of co-authorship networks, only 144 documents with a registered DOI (Digital Object Identifier) were processed. It was determined that the visualization results obtained from VOSviewer are more comprehensive when using DOIs

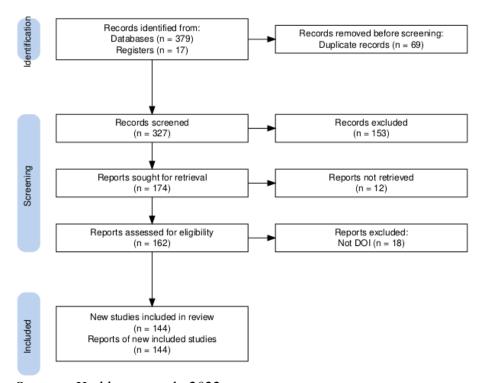


Figure 1. Flow Diagram of the Search Strategy

Sources: Haddaway et al., 2022

D. RESULT AND DISCUSSION

The presentation of results for the study of waqf education in higher education follows the research questions mentioned in the introduction.

1. Research of Wagf in Higher Education and Its Distribution

The initial inquiry (RQ1) pertains to the development of waqf for higher education research and comprises the following elements: (a) publications by year, (b) source and type of document, and (c) title of document.

Publication by years. As illustrated in Figure 2, the publication statistics of waqf education research in higher education from 2012 to 2024 demonstrate a notable increase in scholarly activity. The first article was authored by Adil et al., (2012), examined waqf practices at Universiti Terbuka Malaysia (UiTM) in Malaysia. This paper, presented at the 3rd International Conference on Islam and Higher Education in Malaysia, underscored the potential of waqf as an Islamic financial instrument to enhance the financial autonomy of higher education institutions by reducing their reliance on government funding. The discourse on waqf in education persisted into 2013, although only a single article was identified that specifically addressed waqf in higher education. From 2013 onward, research activity surged, culminating in 2016 as the most prolific year with a total of 26 documents published. Thereafter, from 2017 to 2024, a consistent trend was observed, with an annual output exceeding 12 documents. This indicates a sustained interest in promoting optimal practices in waqf management within higher education systems across various countries. These findings are consistent with previous scientometric evidence that Islamic economics and waqf-related studies have grown significantly over the past decades (Dasril et al., 2023). Moreover, innovative literacy models such as Wassam offer practical implications for higher education institutions seeking to develop student-based waqf programs (Harpepen & Yustati, 2025). Localized experiences in Indonesia, such as community-based waqf (Isnaini, 2023) and research-driven halal centers (Wahyuni et al., 2023), further enrich the global discourse on waqf for higher education.

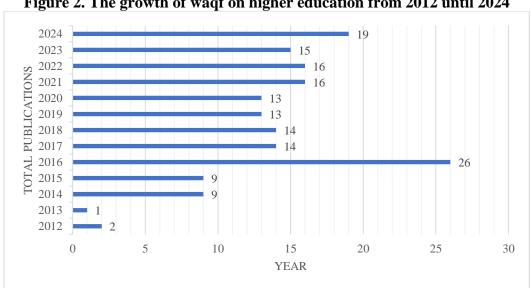


Figure 2. The growth of waqf on higher education from 2012 until 2024

Sources: Processed Data, 2025.

Table 1. Types of Waqf Research Sources in Higher Education

Document Type	Number of	Presentase
	Document	
Journal	85	62.04
Conference Proceedings	41	29.93
Book Chapter	5	3.65
Book	6	0.73
Student Paper	5	3.65
Total	137	100

Sources: Processed Data, 2025

Source and Type of Document, The tracking of document sources is an effective method for identifying the dissemination of higher education waqf research. As illustrated in Table 1, journals predominate as the primary source of documents, accounting for a total of 85 publications, which constitutes 62.04% of the total. This was followed by 41 conference proceedings (29.93%), 6 books (4.38%), and 5 student papers (3.65%). The document sources were derived from six categories of documents: 109 articles, 42 refereed papers, 5 book chapters, 1 book, 3 theses, and 2 doctoral dissertations. This indicates that a total of 85 journals have published 109 articles on the topic of waqf in higher education.

Table 2. Types of Waqf Documents in Higher Education Published

Table 2. Types of Waqi Documents in Higher Education I ublished				
Document Type	Number of	Presentage		
	Document			
Article	109	67.28		
Conference Papers	42	25.93		
Book Chapter	5	3.09		
Book	1	0.62		
Thesis	3	1.85		
Dissertation	2	1.23		
Total	162	100		

Sources: Processed Data, 2025

Table 3. Most Productive Source Titles for Higher Education Waqf

Source Titles	State	Start	Total	Total
		Publication	Publication	Citations
International Symposium on	Turkey	2016	13	14
Waqf and Higher Education				
(ISWHE)				
Global Journal Al-Thaqafah	Malaysia	2011	4	69
International Journal of Civil	Malaysia	2010	3	57
Engineering and Technology				
International Journal of	Pakistan	2011	3	1
Academic Research in				
Business and Social Sciences				
Advanced Science Letters	USA	2008	2	22

Sources: Processed Data, 2025

Source titles, The most prominent source titles that disseminated documents on waqf for higher education are enumerated in Table 3. The International Symposium on Waqf and Higher Education (ISWHE) contributed the highest number of publications, with 13 conference

papers. The analysis indicates an absence of a predominant journal source for publications on waqf for higher education. The Global Journal Al-Thaqafah, published since 2011, has received the highest total citations, with a total of 69 citations recorded. These findings indicate that journals labeled "waqf" do not publish many waqf studies. In Indonesia, for example, the Jurnal Zakat dan Waqf published only 14 of its 60 manuscripts in the last five years (2020-2024). Publications predominantly focused on zakat studies. Concurrently, Islamic countries such as Malaysia, Pakistan, and Turkey persist as prominent publishing destinations for international authors.

2. Topic Areas

RQ2 pertains to the thematic framework of waqf education research for universities. The results of this study involved the analysis of keywords using VOSviewer. Of the 162 documents that were subjected to analysis, it was found that only 147 of these documents provided a Digital Object Identifier (DOI). Van Eck & Waltman (2023) propose the utilization of databases with DOI availability for VOSviewer data processing, superseding the conventional use of CSV (Comma Separated Values). This approach is advantageous for acquiring comprehensive information, particularly in the keywords and abstract sections. The analysis identified 161 terms that appeared more than four times, of which 99 were excluded due to their irrelevance to the central theme. Table 4 presents the most frequently occurring term, waqf, which appears 62 times with a relevance score of 0.08.

Table 4. Top 10 Term in VOSViewer

Tuble 4: Top to Term in Vos Viewer				
Term	Occurrences	Relevance		
Waqf	146	0.08		
Education	55	0.24		
Higher Education	55	0.19		
Malaysia	53	0.16		
Development	53	0.10		
Institution	47	0.11		
Cash Waqf	32	0.64		
Indonesia	27	0.94		
Management	24	0.38		
Fund	23	0.21		

Sources: Processed Data, 2025

Keyword Analysis, This section utilizes VOSviewer to construct and visualize bibliometric networks. The color, size of the circles, size of the text, and thickness of the connecting lines are used to indicate linkages with other terms. For instance, keywords of the same color are frequently grouped together, fostering a visual representation of the interconnectedness of concepts in the network. As illustrated in Figure 3, a network visualization of author keywords with a minimum of four occurrences is presented. The keyword "waqf" received the most attention, as indicated by its placement in the green circle. The keyword "waqf" appears 150 times, with a relevance of 0.11. The keyword waqf is associated with 58 other keywords, including "model," "cash waqf," "trust," "Islam," "Malaysia," "government," and others. The analysis of the keyword network visualization map reveals the formation of 62 terms, 8 clusters, 1,093 link strengths, and 828 occurrences.

This study obtained eight keyword clusters presented by VOSviewer. The first cluster, which revolves around the concept of community welfare, is illustrated within the red circle in

Figure 3. This thematic category encompasses ten keywords. Of these, trust, community, zakat, and society are the most frequently used. The second cluster, depicted in green, focuses on wagf models for higher education. This cluster encompasses nine keywords, including waqf, models, assets, and cash waqf, which were identified as the most salient by the researchers. The third cluster, designated by a blue color scheme, pertains to the subject of waqf in Malaysia. This cluster utilizes six keywords, with "Malaysia," "endowment," and "public university" being the most frequently used. This finding aligns with the observations documented in tables 6, 7, and 8, which position Malaysia as the leading contributor to waqf for higher education research in comparison to other nations.

Additionally, cluster 4 is characterized by Good Waqf for Higher Education Management, as indicated by the mustard circle. The analysis identified three predominant keywords: management, governance, and Al Azhar University. The inclusion of the oldest Islamic campus in the world is attributed to the waqf practices that have been in place since its inception (Abdullah, 2020). The fifth cluster, marked by the purple circle, is centered on the practice of waqf. The keywords "practice," "initiative," and "higher education institution" occupy the top three positions. The selected documents suggested UiTM (Universiti Terbuka Malaysia) in Malaysia, Gontor educational institution in Indonesia, and Islamic boarding schools as the best practice of waqf education fund management.

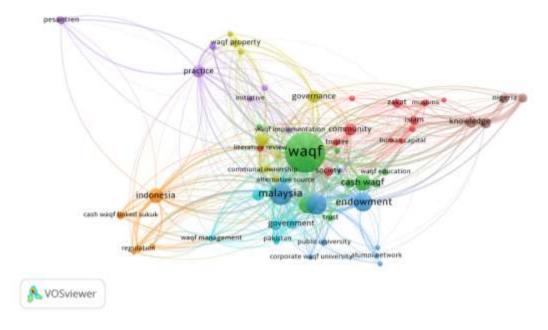


Figure 3. Visualization map of keyword and abstract network

Sources: Analysis of VOSviewer, 2025

The subsequent cluster, designated as "Waqf Alternative Sources" and represented by the turquoise color in Figure 3, explores unconventional sources of waqf funding. The authors identified three primary keywords: foundation, government, and income. The seventh cluster, colored orange, pertains to the theme of Cash Waqf Management. The keywords that support this theme are cash waqf management, cash waqf linked sukuk, CWL (cash waqf linked), regulation, legal system, and Indonesia. The final cluster, designated as "Waqf Knowledge" (Figure 8), is represented by the color brown. This cluster is represented by four keywords: knowledge, awareness, Islamic accounting, and Nigeria.

Table 5. Keywords in Waqf for Higher Education Research

	5. Keywords in Waqf fo			
Cluster	Keywords	Strength	Occurrences	Relevance
Cluster 1:	Trust	36	8	0.26
Community	Community	31	20	0.18
Welfare (Red)	Zakat	27	11	0.63
	Literature Review	26	7	0.48
	Society	25	11	0.81
	Islam	22	12	1.06
	Economy	19	6	0.55
	Human Capital	15	5	0.94
	Muslim	18	8	1.90
	Waqf Instrument	11	5	0.74
Cluster 2:	Waqf	58	150	0.11
Waqf Models for	Model	33	36	0.25
Higher	Asset	25	10	0.61
Education	Cash Waqf	23	32	0.71
(Green)	Private University	17	8	0.38
	Innovation	15	5	0.75
	West Java	12	5	0.56
	Waqf Education	11	6	1.31
	Intention	10	9	3.20
Cluster 3:	Malaysia	45	53	0.19
Waqf in	Endowment	31	42	0.22
Malaysia (Blue)	Public University	20	7	0.62
1110100) 5100 (21000)	Corporate Waqf	8	4	0.55
	University	O	·	0.33
	Alumni Network	7	4	1.74
	Bahrain	4	4	0.58
Cluster 4:	Management	32	24	0.46
Good Waqf for	Governance	29	19	0.43
Higher	Al Azhar University	17	5	0.43
Education	State	16	5	0.36
Management	Waqf Property	15	10	2.45
(Mustard)	Utilization	14	6	2.43
(Iviastara)		9	5	0.50
	Egypt Communal Ownership	8	<u> </u>	1.10
			5	
Classes 5.	Institutional Mutawalli	6		3.47
Cluster 5:	Practice	38	19	0.71
Practice of Waqf	Initiative	27	7	0.56
(Purple)	Higher Education	20	25	0.35
	Institution	0		0.52
	Waqf Implementation	9	6	0.53
	Crowdfunding	6	7	2.70
	UiTM	6	6	2.89
	Imam Zarkasy	5	5	2.32
	Pesantren	4	10	1.75
Cluster 6:	Foundation	36	14	0.37
Alternative	Government	28	15	0.51
Source	Income	28	14	0.61
(Turquoise)	Alternative Source	24	5	0.70

	Waqf Management	23	7	0.87
	Pakistan	12	8	1.55
	Private Awqaf	12	6	1.63
Cluster 7:	Indonesia	30	27	1.17
Cash Waqf	Cash Waqf	12	5	2.12
Management	Management			
(Orange)	Regulation	9	8	2.08
	Legal System Theory	9	4	2.43
	Cash Waqf Linked	5	8	3.67
	Sukuk			
	CWL	5	8	3.67
Cluster 8:	Knowledge	23	17	1.67
Waqf	Awarness	18	16	1.71
Knowledge	Nigeria	14	13	2.50
(Brown)	Islamic Accounting	7	11	3.14

Source: Analysis of VOSviewer, 2025

3. Most Productive Contributors

The most prolific authors, institutions and countries will answer section RQ3 regarding key contributors to the waqf for higher education literature.

Most Productive Author, An analysis was conducted to assess the productivity of authors, institutions, and countries that contributed the most to waqf for higher education publications. The sixth table displays the ten authors with the highest number of documents in comparison to other authors. Asmak Ab Rahman of the University of Malaya is the author with the highest number of documents, having authored nine documents and being cited 324 times. Ab Rahman's inaugural article, published in 2014, focuses on waqf for education and is entitled "Waqf financing for higher education: Contemporary funding applications in some selected countries." The article expounds on the application of waqf in higher education, drawing from the experiences of several countries. Ab Rahman's most recent article, published in 2023 and entitled "Funding higher education through waqf: A lesson from Malaysia." The second position is occupied by Ab Rahman's colleague Muhammad Usman from the University of Malaya, with a total of six documents and 112 citations.

Ab Rahman & Usman's inaugural article (2015), which centers on waqf for education, is entitled "Financing higher education through Waqf Institution: An alternative approach." The article expounds on the application of waqf in higher education, drawing from the experiences of multiple nations. His most recent article, published in 2024 and titled "Empowering Malaysian Higher Education: A Review of Cash Waqf Practices." This article identifies the pivotal function of cash waqf in enhancing institutional performance, supporting funding structures, and cultivating a conducive learning environment. Notably, the authorship of the article is predominantly attributed to Malaysian writers, with only a single contribution from Kayadibi of Turkey. Universiti Kebangsaan Malaysia has contributed three authors: Wan Kamal Mujani (5 documents), Mohd Syakir Mohd Taib (4 documents), and Rifin Mohamad Khairul Izwan (4 documents).

Most Productive Institutions, As presented in Table 7, the ten institutions that have contributed the most to waqf research for higher education are predominantly Malaysian. This finding corroborates the assertions of Baharuddin (1983) and Hashim (2009) that Malaysia is a nation that prioritizes the advancement of Islamic economic and institutional studies.

Malaysia has contributed 135 documents (83.33%) out of 162 documents on waqf for higher education, with a total of 210 authors contributing to this corpus. Notably, Universiti Teknologi MARA (UiTM) ranks first with 68 documents written by 56 authors. This is an intriguing finding given that UiTM is not a campus that develops Islamic Studies, such as the International Islamic University Malaysia and Universiti Sains Islam Malaysia. Lecturers have been encouraged to conduct impactful research and collaboration, and that UiTM has provided generous facilities and finances for contributing researchers. The International Islamic University Malaysia came in second with 28 documents and 15 authors, and the National Defense University of Malaysia came in tenth with 7 documents and 5 authors.

Table 6. Most Productive Authors

Author	Affiliation	Country	Total	Total
		-	Publication	Citations
Asmak Ab	University of Malaya	Malaysia	9	324
Rahman				
Muhammad	University of Malaya	Malaysia	6	112
Usman				
Rohayati Hussin	Universiti Teknologi	Malaysia	6	10
	MARA			
Wan Kamal	Universiti Kebangsaan	Malaysia	5	96
Mujani	Malaysia			
Mohd Syakir	Universiti Kebangsaan	Malaysia	4	81
Mohd Taib	Malaysia			
Rifin Mohamad	Universiti Kebangsaan	Malaysia	4	79
Khairul Izwan	Malaysia			
Fuadah Johari	Universiti Sains Islam	Malaysia	4	70
	Malaysia			
Ahmad Faizul	Universiti Sultan Azlan	Malaysia	4	34
	Shah			
Saim Kayadibi	University of Marmara	Turkey	4	6
Jamil Hashim	Universiti Sultan Azlan	Malaysia	3	31
	Shah			

Sources: Processed Data, 2025

Table 7. Top 10 Institutions Contributing to the Publications of Waqf for Higher Education

Name of Institution	Country	Number of Author	Number of Document
Universiti Teknologi MARA	Malaysia	68	56
International Islamic University Malaysia	Malaysia	28	15
Universiti Kebangsaan Malaysia	Malaysia	26	13
Universiti Sains Islam Malaysia	Malaysia	20	11
Universiti Islam Sultan Azlan Shah	Malaysia	20	10
Universiti Utara Malaysia	Malaysia	17	7
University of Malaya	Malaysia	8	11
Universiti Sains Malaysia	Malaysia	8	5
Universiti Tun Hussein Onn Malaysia	Malaysia	8	4

National Defence University of	Malaysia	7	5
Malaysia	-		

Sources: Processed Data, 2025

Most Productive Countries. Table 8 shows the countries that contributed to the waqf for higher education study. There are 15 countries that have contributed from 2012 to 2024. Malaysia ranks first by contributing 119 documents or 63.77%, Indonesia with 29 documents or 24.07%, Turkey with 6 documents or 3.7% and Nigeria with 3 documents or 1.85%. Iran, Pakistan and Egypt each contributed 2 documents or 1.23. Saudi Arabia, Sri Lanka, Jordan, Brunai Darussalam, Thailand, Qatar, United Kingdom and Australia accounted for only 1 document or 0.62%. Although Muslim-majority countries have dominated, this does not appear to be the case for Saudi Arabia, Iran, Pakistan, Egypt, Jordan and Brunei Darussalam.

Table 8. All Countries Contributed to Waqf for Higher Education Publications

Country	Number of	Percentage
	Document	
Malaysia	119	63,77
Indonesia	39	24.07
Turkey	6	3,7
Nigeria	3	1,85
Iran	2	1,23
Pakistan	2	1,23
Mesir	2	1,23
Saudi Arabia	1	0,62
Sri Lanka	1	0,62
Jordan	1	0,62
Brunai Darussalam	1	0,62
Thailand	1	0,62
Qatar	1	0,62
United Kingdom	1	0,62
Australia	1	0,62

Sources: Processed Data, 2025

4. Most Influential Documents.

The fourth research question (RQ4), which inquiries about the most influential documents in the waqf for higher education study, will be addressed in this section. Table 9 presents the ten most influential documents in the study of waqf for higher education, based on the number of citations they received. Mahamood and Ab Rahman's (Majeed & Zanib, 2016) article, titled "Financing universities through waqf, pious endowments: Is it possible?' has received 156 citations, amounting to 15.60 citations per year. The article was published in Humanomics for volume 31 issue 4, published by Emerald Group Publishing Limited. Three articles by Ab Rahman have been included in the top 10, amassing a total of 257 citations. It is noteworthy that articles with the highest citations tend to be published prior to 2020, a time frame that exceeds a decade. A review of the literature reveals that there are only two articles that received the highest citations and were written by the same author: a) Usman & Ab Rahman (2020) with 63 citations or 15.75 citation per year; b) Usman & Ab Rahman (M. Usman & Ab Rahman, 2023) with 38 citations or 19.00 citation per year.

An analysis of the top ten citations reveals that the most intriguing and frequently accessed article is that which details the implementation of waqf for higher education. Seven articles are focused on experiences in Malaysia, while the remaining articles are concentrated in Pakistan, Egypt, Indonesia, Turkey, and the United Kingdom. Malaysia has been

implementing waqf for education since the return of its ulama from Mecca and Egypt (Mujani et al., 2018). During the early 20th century, madrasas were established on waqf land in the regions of Pattani, Kelantan, Terengganu, Kedah, Perak, and Seberang Perai. Madrasah al-Masyriah in Seberang Perai is recognized as the inaugural waqf educational institution in Peninsular Malaya (Mujani, 2014; Rahim, 1976). A similar origin of the waqf can be traced back to the Fatimid Daulah, particularly under Caliph Al-Hakim bin Amrillah (985-1021), marking the inception of this practice at Al-Azhar University in Egypt. Al-Azhar University has utilized waqf funding for a variety of purposes, including the completion and maintenance of facilities and infrastructure, the support of educators, the enhancement of educational quality, the provision of student scholarships, and the construction of the Al-Azhar Mosque (Abdullah, 2020; Azmi, 2020).

Table 9. Top 10 Highly Cited Documents

No	Author(s)	Title	Journal	TC	C/Y
1	Mahamood &	Financing universities through	Humanomics	156	15.60
	Ab Rahman	waqf, pious endowment: is it			
	(2015)	possible?			
2	Harun et al.	Issues and economic role of waqf	Al-Iqtishad:	66	7.33
	(2016)	in higher education institution:	Jurnal Ilmu		
		Malaysian experience	Ekonomi		
			Syariah		
3	Usman & Ab	Funding higher education	International	63	15.75
	Rahman (2020)	through waqf: a lesson from	Journal of		
		Pakistan	Islamic and		
			Middle Eastern		
			Finance and		
			Management		
4	Ab. Aziz et al.	The relief of higher education	Asian Social	46	4.18
	(2014)	loan through islamic waqf bank	Science		
5	Musari (2016)	Waqf-Sukuk, enhancing the	Conference	39	4.33
		Islamic finance for economic	Paper of the		
		sustainability in higher education	2nd World		
		institutions	Islamic		
			University		
			Leaders'		
			Summit 2016		
			(WICULS)		
6	Abdulrazak et	A study on sources of waqf funds	Adam	39	4.33
	al. (2016)	for higher education in selected	Academy		
		countries	Journal of		
			Social		
			Sciences		
7	Mujani et al.	The history of the development	International	39	5.57
	(2018)	of higher education waqf in	Journal of		
		Malaysia	Civil		
			Engineering		
			and		
			Technology		
			(IJCIET)		

8	Usman & Ab	Funding higher education	International	38	19.00
	Rahman (2023)	through waqf: a lesson from	Journal of		
		Malaysia	Ethics and		
		•	Systems		
9	Ahmad &	Funding the Sub-Saharan	Journal of	38	3.80
	Hassan (2015)	African education sector with	Creative		
		waqf: Experiences from al-	Writing		
		Azhar university and selected	_		
		universities in Malaysia			
10	Harun et al.	Empowering higher education	Proceedings of	32	2.91
	(2014)	institution: the role of waqf-	the Australian		
		Malaysian perspective	Academy of		
			Business and		
			Social		
			Sciences		
			Conference		
			2014		

Sources: Processed Data, 2025

5. Collaboration Patterns.

This section provides a response to RQ5, which inquiries into the collaboration patterns of waqf in the context of higher education studies. The inquiry is addressed by presenting a network visualization of co-author mapping among various authors. The visualization employs a full counting approach, which enumerates 236 authors from a total of 162 documents on waqf for higher education. A total of 22 connections between authors were identified. The intensity of the relationship between the authors is indicated by the colour, size of the circles, text size, and thickness of the connecting lines.

Figure 4. Network Visualization Map of Co-Authorship among Authors.

Source: Analysis of VOSviewer, 2025

The utilization of analogous colours in the representation of related authors underscores the cohesive nature of their scholarly contributions. Asmak Ab Rahman (Universiti Sains Islam Malaysia), the most prolific author, has collaborated with nine other authors.

Fuadah Johari (Universiti Sains Islam Malaysia), Mohd Fauzi Abu-Hussin (Universiti Terbuka Malaysia), Mohammad Haji Alias, Kalsom Abd Wahab (Universiti Sains Islam Malaysia), Nursilah Ahmad (Universiti Sains Islam Malaysia). Patmawati Ibrahim (Universiti Tun Hussein Onn Malaysia), Syadiyah Abdul Syukor (Universiti Sains Islam Malaysia), Nor Masitah Mohd Orip (Universiti Sains Islam Malaysia), and Zurina Kefeli@ Zulkefli (Universiti Sains Islam Malaysia). Our findings indicate a concentration of waqf studies in higher education. This dominance of Malaysian authors could be addressed through future research collaborations

E. CONCLUSION

This study measured the efficiency of Islamic Rural Banks (BPRS) in Bengkulu and Lampung Provinces during 2019–2023 using the DEA approach. The findings indicate that BPRS in Lampung generally achieved higher efficiency levels than those in Bengkulu, with inefficiencies primarily arising from high operational costs, limited financing, and suboptimal operating income, especially during the COVID-19 period.

The results highlight that efficiency improvement requires better cost management, optimal fund allocation, and enhanced income generation strategies. Lampung BPRS, particularly those operating in urban areas, demonstrate that broader market access and stronger resource management contribute positively to performance.

This research contributes by providing empirical evidence on the comparative efficiency of BPRS across two provinces, offering practical insights for regulators and bank managers in strengthening financial sustainability. Future research may extend the analysis by incorporating additional variables such as technological adoption, governance, and risk management to capture broader efficiency determinants.

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