

TRENDS AND PATTERNS IN WAQF RESEARCH IN HIGHER EDUCATION: A SCOPUS-BASED BIBLIOMETRIC STUDY

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Abstract: *This study examines the development, intellectual structure, and thematic evolution of waqf research in higher education by mapping publication trends, key actors, networks, and research gaps. A bibliometric analysis conducted on 298 Scopus-indexed articles from 2001 to 2025. VOSviewer software identified patterns in publication growth, prolific authors and institutions, keyword clusters, and international collaboration networks. Waqf publications increased markedly, from fewer than five per year before 2017 to 34 in 2024. Malaysian institutions, including Universiti Teknologi MARA, International Islamic University Malaysia, and Universiti Kebangsaan Malaysia, are the most active contributors, with Rahman, A.A. as the leading author. Keyword analysis shows strong clusters in bibliometrics, Islamic social finance, cash waqf models, and sustainable development goals, while donor behaviour, governance, and cross-cultural applications remain underexplored. Malaysia also serves as a hub for international collaboration, especially with Indonesia and the Middle East. The findings highlight gaps in donor behaviour and governance, offering insights for institutional fundraising policies and governance structures to improve waqf application in higher education. The study provides a bibliometric overview of waqf in higher education, mapping intellectual structures, collaboration patterns, and research gaps, linking these insights to practical and policy implications for sustainable financing in modern universities.*

Keywords: *Waqf, higher education, bibliometric analysis, Islamic endowment*

Introduction

Waqf is the system of Islamic endowment when assets are given permanently to achieve the religious or charitable purposes, has become an important tool of socioeconomic development among Muslim majority nations. Waqf is not a new idea as it has been used to finance schools, hospitals and social welfare projects in an Islamic world (Çizakça, 2000; Kuran, 2001; Sadeq, 2002). However, over the last few years the academic interest in the research on waqf has grown significantly, especially in the context of the higher education institutions that are seeking sustainable funding sources other than the traditional governmental grants and tuition fees. Waqf is the unique third-sector strategy that fills the gap between state and private enterprise in financing accessible goods in society, including education (Sadeq, 2002; Kuran, 2001; Ahmed, H. 2011; Hasan, 2014; Khan & Jareen, 2015, Hasan, S. 2015). This resurgence of academic interest can be seen as an appreciation of the opportunity of waqf to come to the rescue of institutions of higher learning following the increasing financial constraints, a requirement to develop infrastructure, and the quest to achieve educational excellence (Ahmad and Hassan, 2015). With universities all around the world struggling with the reduced appropriation of tax resources and growing costs of operation, the debate as to how waqf can be renewed and incorporated into the current paradigms of educational financing has been a subject of growing interest to the researchers and policymakers, as well as to the institutional administrators.

Although the literature on the issue of waqf in higher education is increasing, it can be stated that a thorough and detailed bibliometric study is still needed to trace the intellectual map of the topic and determine research tendencies, scholars, and trends in the given area. Bibliometric research helps locate statistically important patterns of development of the field of research through the study of patterns of publications, citation, and collaborative relationships between two scholars (Donthu et al., 2021). One of the strongest sources of carrying out such systematic reviews is the Scopus database being one of the largest abstract and citation databases of peer-reviewed literature (Baas et al., 2020). Nonetheless, little focus has been created on the systematic search of the history of waqf study in the context of higher education in particular in terms of bibliometric techniques. To remedy this gap, this paper is based on the Scopus-based bibliometric analysis of the waqf studies in higher education between 2001 and 2025 to determine the patterns of publications, works and authors with significant impact, thematic clusters, and opportunities to conduct further research. These trends are essential to the study of theories and the requirement to make the principles of waqf more practical and applicable to modern management of higher education. Hence, some objective questions are created:

1. What is the trend of the publication of research on waqf contribution in higher education?
2. What are the most influential individuals, establishments and nations on the contributions of waqf in higher education research?
3. Which are the primary research themes and keywords of the studies on the topic of waqf contribution in higher education?
4. What are the research gaps, and what directions of research can be proposed in the future?

Besides, the rest part of this paper was structured in a manner that; Section 2 covers the literature review, Section 3 covers the review of the methodology, Section 4 covers the results obtained through the publication analysis, most influential authors, countries, and institutions and co-occurrence author keywords. Section 5 contains the conclusions and future direction and implications.

Literature Review

Waqf has historically played a crucial role in establishing and sustaining educational institutions throughout Islamic civilization. Classical examples include Al-Azhar University in Egypt and the Nizamiyyah schools established across the medieval Islamic world, all funded through waqf endowments (Çizakça, 2000). This institutional framework, based on charitable trusts, enabled Islamic education to develop as religiously grounded, privately organized systems accessible to all Muslim learners (Makdisi, 1981). The waqf institution provided independent economic means for financing education across the Muslim world, which significantly contributed to the autonomy of scholarly research and academic work (Arjmand, 2018). These institutions demonstrate the enduring capacity of waqf to support long-term educational missions through sustainable revenue generation from endowed assets.

In contemporary contexts, waqf has been revitalized as universities seek alternative funding sources beyond government allocations and tuition fees (Ahmad & Hassan, 2015; Mahamood & Ab Rahman, 2015; Usman & Ab Rahman, 2023)). Modern applications include cash waqf schemes where donors contribute monetary funds rather than physical properties (Ibrahim et al., 2013; Shahrullah et al., 2024), corporate waqf models involving business entities (Asharaf & Abdullah, 2013; Ramli & Jalil, 2013), and hybrid structures combining traditional and contemporary approaches (Huq & Khan, 2017; Pitchay et al., 2018). Malaysia, Indonesia, and several Middle Eastern countries have established regulatory frameworks and institutional mechanisms to facilitate waqf contributions to higher education.

Recent studies have shown that waqf integration into higher education funding presents both opportunities and challenges that require careful consideration. Research by Harun et al. (2020) examined Malaysian universities and found that while cash waqf schemes have gained traction, many institutions struggle with effective governance structures and transparent accountability mechanisms. The study highlighted that donor confidence remains heavily dependent on how universities manage and report waqf funds, suggesting that institutional credibility plays a more significant role than marketing efforts alone (Bakar, 2018; Hasan et al., 2020; Usman & Ab Rahman, 2023). Similarly, Masruki and Shafii (2021) investigated waqf implementation across Southeast Asian universities and discovered that regulatory clarity significantly impacts adoption rates, with Indonesia showing higher participation levels due to clearer legal frameworks compared to other countries in the region (Shamsudin et al., 2015; Abdul Kader, 2015; Ahmad & Rusdianto, 2020; Sulaiman et al., 2019; Farwell et al., 2019; Isaacs, 2014).

Use of waqf in funding of scholarships to students and develop infrastructure has seen significant interest in the recent literature. Mohsin et al. (2022) reflected on the scholarship programs that are funded by the waqf in various institutions in the Gulf Cooperation Council countries and observed that these programs are not only helping to lessen the debt burden among the students but also ensuring that the process of providing these scholarships creates a cycle which most of the students later become the donors themselves when they have established themselves in the field. This observation contradicts the traditional belief that waqf advantages are one-sided and indicates that educational waqf generates the long-term stakeholder involvement. At the same time, a study by Abdullah et al. (2023) of infrastructure financing using waqf has shown that universities that used the waqf funds to construct their premises and improve their facilities showed a higher level of maintenance results than traditionally debt-financed projects, mainly due to the inherent nature of the waqf structure of governance that requires long-term sustainability planning.

The digital transformation has brought to the waqf management in higher education innovative dimensions. Saleh and Rahman (2023) were able to examine the use of blockchain technology in waqf administration and discovered that distributed ledger systems have a significant effect on ensuring transparency and cutting the administrative costs, as many administrative stakeholders lack technical literacy and thus cannot fully adopt the technology. Their study revealed that younger donors are more ready to become contributors of digitally-controlled waqf schemes and therefore it may be possible to increase the size of the donors to cover more than just traditional donors. More so, Abdul Rahim et al. (2024) investigated the use of crowdfunding in educating waqf and found that the democratized contribution with the use of micro-waqf campaigns, through which small sums of money can be given, has enabled the middle-income earners to experience becoming waqf donors instead of limiting contributions to affluent philanthropists.

Although such encouraging changes have taken place, there are a number of issues that remain in exploiting waqf to even greater heights in higher education. Fragmented regulatory frameworks were found to be a key challenge by Asni et al. (2020), in which there is a lack of consistency in interpreting the Islamic law between the various jurisdictions which causes uncertainty among institutions and donors. Another problem is the absence of standard measures of performance to assess the effectiveness of waqf, which makes it difficult to make comparative assessments and identify best practices. Also, Hasan and Abdullah (2021) indicated that the ignorance of the university administrators in the waqf mechanisms does not allow most institutions to consider this type of funding, which implies that the capacity-building and knowledge transfer programs are necessary conditions to expand the range of its implementation. Such scholars state that it is better to deal with the flaws in governance schemes and educate the stakeholders, rather than merely create more waqf schemes because quality implementation is more important than the quantity of the initiatives.

Methodology

Bibliometrics simply refers to the methodical examination of academic publications with the assistance of quantitative analysis to realize how a specific field of research has evolved in the past (Donthu et al., 2021). The method will assist scholars to locate patterns, trends, as well as the most critical contributors in any scholarly field based on data on publications, networks of citations and structures on collaboration (Aria and Cuccurullo, 2017). Bibliometric analysis has become a more useful method in the context of Islamic finance and social institutions to map the development of the waqf research especially when it meets the contemporary needs such as higher education (Hassan et al., 2022).

The methodology may include two general elements: performance analysis, or the desire to understand how different publishing is localized, by whom, and in which institutions or countries it is most concentrated; and science mapping, or the desire to study the relationship of various research themes and how they have changed over the years (Moral-Muñoz et al., 2020). In this research, Scopus is the main database as it will be chosen on several strong arguments.

First of all, Scopus presents the best coverage of peer-reviewed publications in a wide range of fields, covering more than 25,000 journals out of more than 5,000 international publishers, and thus is uniquely well-placed to cover interdisciplinary topics such as waqf in higher education that spans across the field of Islamic studies, finance, economics, and education research (Baas et al., 2020). Later, Scopus has a better coverage of Asian and Middle Eastern journals than

other databases, which are important to the study on waqf since most of the scholarly literature in this field is published in Muslim-majority countries and institutions within these regions (Pranckutė, 2021). Scopus is better analytical, has data export functions in the third case, which provides easier bibliometric analysis, and direct integration with software such as VOSviewer and Bibliometrix R-package, which is necessary to develop visualization maps and perform statistical analysis (Zhu and Liu, 2020).

Also, Scopus has proven to index open-access journals and potential emerging publishers in developing nations better, which means that important works of the scholars in the areas where waqf is being practiced will not be ignored (Martin-Martin et al., 2021). In addition, the database has superior author identification and institutional affiliation tracking, as the author profile system allows eliminating the mistake in assigning publications and determining collaboration networks (Singh et al., 2021). Web of Science is usually regarded as a gold standard when conducting the bibliometric study, and Scopus was used in this case due to the inclusion of a wider range of journals, especially in social sciences and humanities, and the ability to index more regional journals that frequently represent the publication of waqf-related research (Pranckutė, 2021).

Data Strategy and analysis

The process of data collection was such that it would be able to cover a 25-year stretch of waqf research in higher education, i.e. between 2001 and 2025. This period was carefully selected in order to capture the time the interest in the finance of Islamic and social institutions started to receive considerable academic interest in the world. It was especially visible after the Asian financial crisis of 1997/1998 forced researchers to look onto other economic models (Hassan et al., 2022).

The search used a combination of well-chosen keywords which were used to be precise and recall-based when finding relevant publications. The main search query was as follows: TITLE-ABS-KEY (waqf OR awqaf OR cash waqf OR Islamic endowment) AND (education OR higher education or university or universities or school or educational institution). Such a Boolean search query was implemented on titles, abstracts, and keywords in order to include those articles that substantively discuss the intersection of waqf and higher education and not those ones that mention these concepts in passing (Donthu et al., 2021). It was necessary to include the alternative spelling such as waqf (typically used in Malaysia and Indonesia), as well as awqaf (the plural form in Arabic), in order to exclude the possibility of absent relevant publications in other linguistic and geographic settings (Alias et al., 2022).

The preliminary search provided a reasonable amount of documents which were filtered through a rigorous vetting procedure. In accordance with the best practices in the field of bibliometric research, only articles written in peer-reviewed academic journals and conference proceedings were included, and books, book chapters, editorials, and grey literature were excluded to ensure that the dataset used is of quality and reliable data (Cancino et al., 2022). The rationale behind this choice was that the journal articles are reviewed by the peer, which means that they are legitimate contributions to the field of scholarship, and the rest of the types of publications can be quite different in the level of quality and academic quality (Zhu and Liu, 2020).

The search was then confined to the literature published in English since the English language continues to be the language of research and thought in the international field, and most of the

high-impact research in the field of Islamic finance and education appears in English to access a global audience (Sweileh, 2020). Also, articles were filtered to include the relevant subject categories of Scopus, which contained Social Sciences, Economics, Econometrics and Finance, Business Management and Accounting, Arts and Humanities and Decision Sciences. Such area sample filtering allowed the removal of irrelevant articles in other areas such as medicine or engineering that happened to mention the search terms (Singh et al., 2021). Following the implementation of these inclusion and exclusion criteria, the data was exported out of the Scopus in various formats such as CSV, BibTeX and RIS files. Bibliometrics analysis was conducted on 298 articles that were retained (N = 298).

The review tool to be adopted in this bibliometric survey was designed in a specific way based on the quantitative measures of performance as well as the qualitative use of science mapping methods to engage complete insight into the waqf on higher education research region. The analysis of the performance assessed multiple critical indicators, which include publication trends in the 25-year period in order to determine growth trends and turning points in the research activity; most productive authors and institutional affiliations in order to identify leading scholars and research centers in the field; most frequently cited publications in order to identify the seminal works driving the discourse; geographical distribution to understand countries and regions which are driving scholarly activity; and most influential journals in order to determine where important research is published (Donthu et al., 2021). This multidimensional performance analysis will present information about the persons undertaking waqf research, their whereabouts, and which publications are most influencing the topic.

In science mapping, a number of analytical methods were used based on specific bibliometric software. Using co-citation analysis, the structure of the intellectual field was identified by checking which publications are most likely to be cited simultaneously, and it is possible to find out clusters of research and theoretical backgrounds (Aria and Cuccurullo, 2017). To gain an insight into the emerging themes and directions, bibliographic coupling was met to reveal current research fronts through the analysis of publications whose references are held in common, thus assisting in revealing them (Moral-Muñoz et al., 2020).

The frequency and the relationships of keywords were evaluated to map out the theme development and determine how research topics changed during the 25 years of analysis through co-word analysis (Hassan et al., 2022). The analysis of collaboration networks visualized the findings of co-authorship patterns to comprehend the collaboration status between researchers, institutions, and countries, which is especially important to interpret the process of internationalization of waqf research (Cancino et al., 2022).

The software that was used in the study was to provide a strong analysis and it was VOSviewer that was employed in developing network visualization maps.

Results and Discussion

This section presents the findings from the bibliometric analysis of waqf contribution in higher education research spanning 25 years (2000-2025). However, the result shows the waqf studies start from year 2001 to 2025. Then, the results are organized according to the four research objectives that guided this study, with each subsection addressing a specific objective to provide a systematic and comprehensive understanding of the research landscape.

Publication Trends in Waqf and Higher Education Research

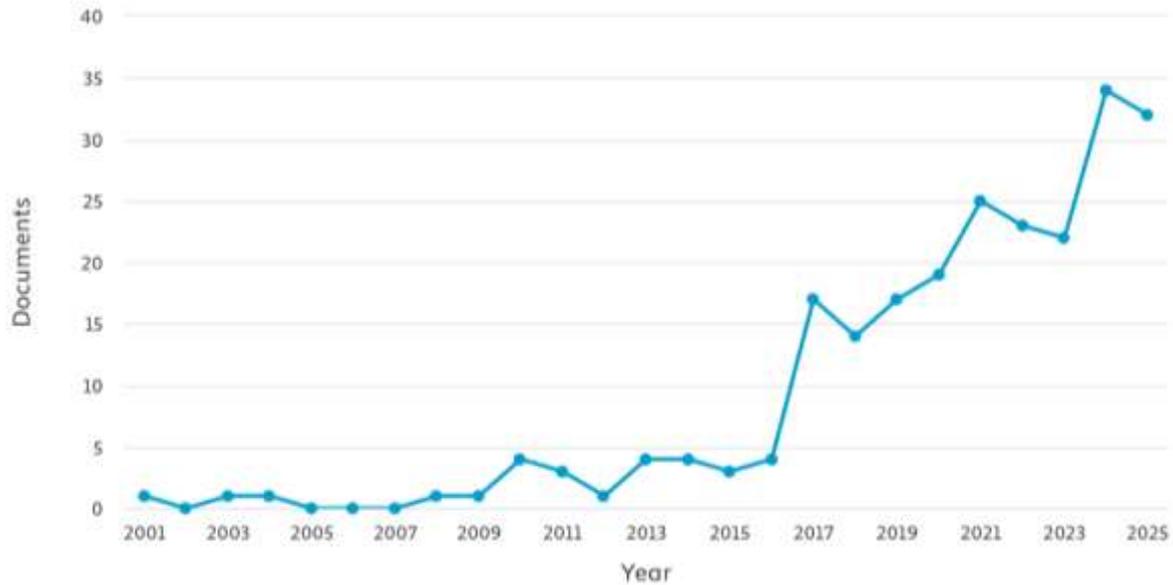


Figure 1: Publication Trends of Waqf Research in Higher Education (2001–2025)

Source: (Developed By Author Using Vosviewer)

The chart indicates that the studies of waqf in tertiary institutions were virtually non-existent a few years back. Between 2001 and 2016, the number of articles published in the field was limited to a few articles every year with most years having fewer than 5 articles. This raises the possibility that very little attention was given to this subject by scholars in those days. It all the more changed in 2017. The most drastic change was a rise in 2017 to 17 publication compared to approximately 4-5 documents in a year but only after that, it began to rise steadily, with a peak of 34 documents in the year 2025. The episode of such an explosion of research suggests that waqf in higher education is a hot topic nowadays, which receives much more academic interest and attention than ever before.

Influential Contributors: Authors, Institutions, and Countries

This subsection addresses the second research objective: Who are the most influential authors, institutions, and countries in waqf contribution research in higher education?



Figure 2: Top Contributing Authors in Waqf Higher Education Research.

Source: (Developed By Author Using Vosviewer)

This is a chart that establishes ten most productive writers on the topic of waqf in higher education. The most active researcher in this area is Rahman, A.A who has published about 6 publications leading him to be the most active contributor in this field. As the second most prolific author, A. Ab Rahman has approximately 4 publications and demonstrated great interest in the subject.

The next eight authors had contributions of approximately 2-3 publications a stratum of moderately active researchers. Aman, A., Dhewanto, W., Faturohman, T., Hassan, R., Hussin, R., Johari, F., Maulina, R., and Rusydiaana, A.S, are all included in this group. The comparatively balanced representation of these authors implies a growing group of researchers instead of one research group mainly controlling the focus meaning that the interest in waqf and higher education is diffusing not to mention to various researchers but also perhaps to different institutions.

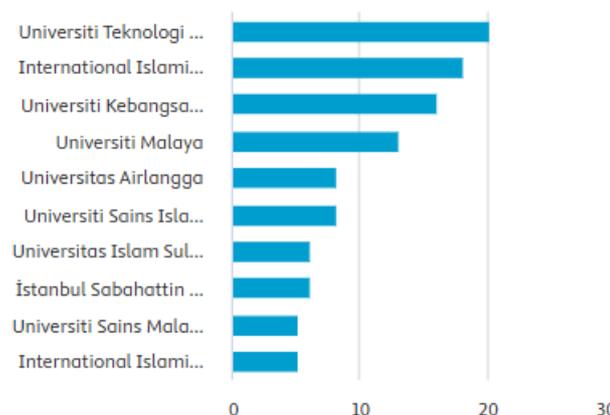


Figure 3: Leading Institutions Publishing on Waqf Contribution in Higher Education

Source: (Developed By Author Using Vosviewer)

This chart shows the institutions that are at the forefront of research on waqf in institutions of higher learning. Universiti Teknologi MARA is at the forefront of the list having about 20 publications and it is the main research center on the topic. The International Islamic University

and Universiti Kebangsaan Malaysia (approximately 18 and 16 publications, respectively) also come close in their heels to make a very formidable trio of top institutions.

The research activity is evidently concentrated in the Malaysian institutions and Universiti Malaya is also a major contributor with about 13 publications. There are also representations of Indonesian universities such as Universitas Airlangga and Universiti Sains Islam, and Turkish universities, such as Istanbul Sabahattin and Universitas Islam Sultan. This geographical distribution implies that studies about waqf in higher education institutions in the majority Muslim-oriented areas of southeast Asia and Middle East indicate that studies are mostly led by institutions in countries where Islamic endowment systems are still culturally and economically significant in the progression of universities.

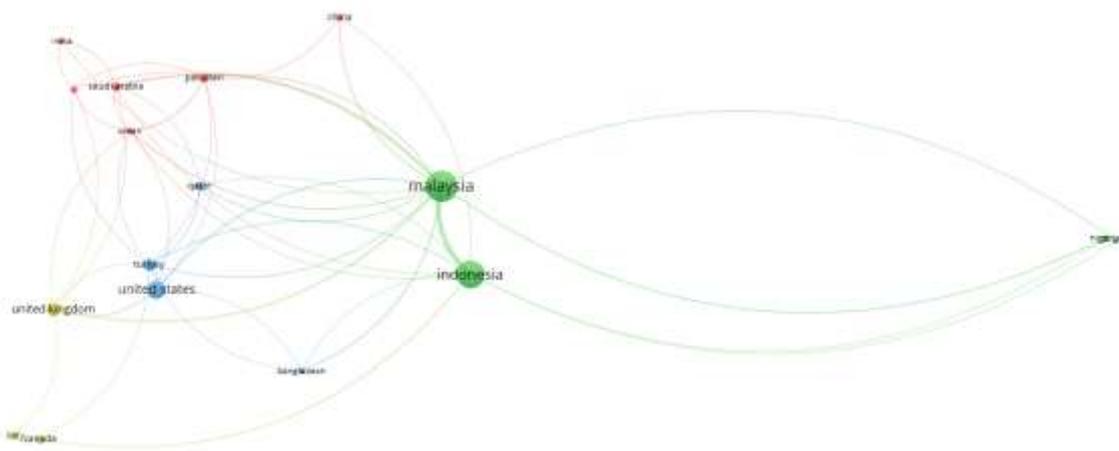


Figure 4: Country Collaboration Network Of Waqf Research In Higher Education.

Source: (Developed By Author Using Vosviewer)

The country collaboration network map is used to demonstrate the geographical distribution and the international research collaborations in the waqf research which shows the pattern of scholarly collaboration and knowledge sharing among various countries. The most noticeable node in the network is Malaysia, which is evidenced by its size and centrality, proving that the country is the most relevant hub in terms of waqf research in the world (Kumar, 2015). This supremacy is an indication of the fact that Malaysia is actively developing waqf institutions, favourable regulatory systems and also has good academic infrastructure which is set towards the study of Islamic finance and waqf. It is depicted that Malaysia has wide-ranging collaborative ties with other countries, as witnessed by the presence of Indonesia, which is the second largest node in the network, implying that both countries have a lot of research collaboration. The high Malaysia-Indonesia relationship, which is symbolized by bigger connecting lines, denotes a high frequency of co-authorship and joint research projects, presumably due to common cultural-related context, an identical challenge of waqf, and physical closeness which promotes an academic transfer (Glanzel and Schubert, 2005). Also, Malaysia expresses mutual relations with the Middle East states such as Saudi Arabia, Pakistan, Qatar, and Oman, and has relations with South Asian countries such as India and Bangladesh, in the form of pan Islamic waqf research that cuts across geographical borders. The fact that Western countries like United Kingdom, United States, Turkey and Canada are part of the network, though with lesser nodes, indicates an increase in international interest in waqf scholarship outside of the traditional Muslim-majority setting and this may include writing

As shown in the visualization of the temporal network, it can also be stated that the study of the relationship between waqf and scholarly works between 2020 and 2024 is profoundly methodological and thematic, being primarily focused on a progressive transition of basic socio-historical investigation to measurement-driven studies with sustainability perspectives. According to the purple cluster, showing higher coverage of earlier publications (2020-2021), there is a tendency to concentrate on the fundamentals of Islamic studies with the help of such keywords as world, book, islam, law, history, religion, culture, woman, and politic, which points to the fact that the first research efforts targeted the elaboration of the historical, legal, and socio-cultural background of waqf within the overall discourse on the Islamic civilization. This layer is linked to the blue cluster which focuses on student, university higher education, experience and society inferring an intermediate level where scholars started analyzing the place of waqf in educational institutions and social set up.

The transition in green cluster between the more methodological approaches to research involving beliefs and attitudes, as well as questions and variables, towards more quantitative approaches using statistical CMM techniques such as PLS-SEM, through the prevalence of attitude, variable, questionnaire, factor, relationship, effect, intention, donation, trust, reflects the shift to negatively weighting quantitative survey research methods to understand the role of stakeholders in terms of behavior and perception through the investigation of stakeholder behavior, contribution intentions and the psychological determinants of waqf participation. The latest transformation can be shown by the yellow cluster (2023-2024) where the primary keywords are trend, sustainable development, SDGs, investment, stakeholder, accountability, and practical implication, which indicates a current research agenda placing waqf in the context of global sustainability and the focus on managerial relevance, financial innovation, and models of multi-stakeholder governance.

The bridging keywords community, author, society and theory are the conceptual bridging markers that can be used between these temporal clusters to include the integration of the historical-cultural insights with the modern empirical methods and practical results. This trend of historical development indicates that the field has progressed beyond descriptive and exploratory research towards hypothesis-testing research using rigorous quantitative research methods to find solutions to the modern challenges, specifically how to align waqf institutions with the Sustainable Development Goals as well as how to measure the stakeholder engagement using validated psychometric tools. The growing popularity of methodological keywords entails a professionalization of the discipline where waqf scholarship is now embracing a set of social science research guidelines as it continues to relate itself to the founding principles of Islam, and as a result, stands as an acceptable field within both Islamic economics and development studies discourse in general.

According to the bibliometric analysis, even though the research in waqf has developed considerably between 2020 and 2024, the overlap between waqf and higher education is not well researched yet. The blue cluster depicts a few links between student, university and higher education keywords and the hegemony waqf-finance cluster, which means that educational waqf is not a core but a frontier research area. This gap is what explains why the applications of waqf must be thoroughly analyzed within the narrow of higher education application, that is the main purpose of this research.

The time analysis shows a new tendency to the field of sustainability (yellow cluster: SDGs, sustainable development) and research of behavior (green cluster: intention, trust, donation). In

addition, the low research business in education-waqf nexus, which is indicated by the smaller size of (university and student) nodes, makes this research a timely input to a research field that is immature but becomes more pertinent.

Conclusion

The overall bibliometric analysis of this research shows that there are key gaps in the research that should be addressed in the Comprehensive scholarly research. The publication trend analysis shows that whereas there is an epic rise in the research on waqf since 2017, the trend expansion has failed to correlate in terms of depth in applications-specific in higher education. The number of publications has risen exponentially with more than 5 per year to 34 by 2024, suggesting the growth of interest although this quantitative growth conceals qualitative constraints of examining micro-level dynamics of behavior. In the case of the author productivity analysis, it can be seen that Rahman, A.A. has only 6 publications at the forefront of the list, which can be interpreted to mean that waqf in higher education is yet to attain a critical mass of dedicated scholars to generate research programmes that are persternacious and focused. The his own even distribution of second-tier authors (2-3 publications each) also indicates that the field is still in the process of fragmentation without formed research schools or collaboration networks that give rise to systematic investigation of the problem of contribution behavior.

Although the case of Malaysia-Indonesia liaison presented in Figure 4 can be seen as a worthy regional cooperation, the ineffective relations between the Southeast Asia nodes and the Middle East ones (Saudi Arabia, Qatar, Oman). Low involvement of the South Asian nations (Pakistan, Bangladesh, India), peripheral position of the African countries (Nigeria) imply that the present waqf research does not reflect the variety of Islamic higher education practices all over the world. This territorial bias is especially troublesome, as the interpretation of the law, state governance frameworks and attitude of stakeholders differ vastly between Muslim-majority countries leading to the fact that Malaysian cases of university endowments should not be taken as universal to the system of university endowment in the Gulf countries or the educational system of North African states. Besides, the temporal analysis of Figure 4 shows that the majority of active collaborations (yellow-green connections) were held in 2022-2024 which means that cross-national research networks are still developing and do not have the maturity to create strong comparative research on the effect of various cultural, legal, and economic contexts on waqf contribution behaviours in higher education institutions.

Furthermore, key word density visualization reveals the most acute thematic lapse: the enduring lack of relations between the clusters of waqf research and the behavioral research specific to higher education. Whereas the temporal development between the purple cluster (2020-2021 historical-cultural foundations) through the blue (educational institutions) to the green cluster (behavioral methodologies) and the yellow cluster (2023-2024 sustainability frameworks) reveals that the field has the new advanced quantitative methodologies, the weak connections between the key words in the blue cluster (student, university, higher education) and the most dominant constructs in the green cluster (attitude, intention, trust, questionnaire, PLS-SEM) indicates that these new method.

The pre-eminence of community, author, and theory as bridging keywords presupposes the fact that current behavioral research lacks any connection with the practical tools of applying the waqf on a real-life basis and concentrates rather on the general intentions of charity than on university-specific intentions of a donor. Furthermore, the fact that the yellow cluster mentions

such aspects as SDGs and sustainable development, investment, and accountability presupposes that the new literature has shifted towards the macro-level discussion of sustainability without answering the key question properly, why and how individual stakeholders (alumni, students, academic staff, external donors) choose to contribute to educational waqf. This conceptual gap provides a call to future studies to complete this thematic divide by creating merged frameworks addressing behavioral determinants (green cluster constructs) in more particular situations (blue cluster), and to reconcile these micro-level results with goals of sustainability (yellow cluster) and to ensure that these results are connected to Islamic underlying principles (purple cluster). The methodological complexity reflected in the keywords such as PLS-SEM, variable, and questionnaire is a good toolkit, but this analytical potential is not utilized to investigate the behavior of educational waqf contribution, which is a big gap but this threshold is an opportunity of improving the subject matter at the same time.

Future Direction

According to the gaps, which were identified, some priorities of future research directions can be identified. One, scholars need to establish and confirm detailed behavior frameworks that are specifically designed within the context of educational waqf and incorporate elements of the Theory of Planned Behavior and Stakeholder Theory, as well as Islamic system of philanthropic motivation models, to elucidate the contribution intention of individual stakeholders of a university (alumni networks, current students, academic staff, partners). Second, cross-national research is immediately necessary to test the moderating roles of regulatory environments, cultural values and the level of economic development in the relationships between behavioral determinants and actual waqf contribution behaviors among the Southeast Asian, Middle Eastern, South Asian and African systems of higher education. Third, the methodological innovation must address longitudinal research designs that monitor the behavior of contributions over time, mixed-methods research that derive on the quantitative survey contribution data with qualitative information about how donors make decisions and transparency experiments and test the effectiveness of various fundraising tactics and transparency mechanisms.

Fourth, studies should be clear on how digital platforms are incorporated as the case with crowdfunding, blockchain tools of transparency, mobile-based payments systems and evaluate the impact of technological interventions on trust, Perceived behavioral control, and eventually the rate of contribution of the various demographic cohorts. Fifth, researchers need to explore the governance-performance connection by considering the variations in the impact of institutional accountability systems, reporting transparency, fund usage visibility and impact communications strategies on the confidence of the donors and the continued interest of the donors in the educational waqf programs. Lastly, the discipline needs additional theory-construction studies, which go beyond utilizing the current models of behavior to developing indigenous theoretical frameworks based on Islamic ideals and taking into consideration the current realities of financing higher education, thus establishing theoretical arguments that would interpret these peculiarities of waqf contribution in contemporary university settings.

Implication

Theoretical and methodological Implication

The review of the literature on the development of waqf research in higher education as presented in this bibliometric study has far reaching implications both at theoretical, methodological and practical levels whose essence transforms the way scholars and

practitioners should frame the concept of educational waqf in the modern day contexts. Theoretically, it can be argued that the synthesis of the results of Figures 1-5 brings to mind the picture of a field that is simultaneously facing the end of the paradigm and is unable to build cumulative knowledge due to the conceptual fragmentation it is experiencing. Publication boom since 2017 since near-invisibility to 34 annual publications in 2024 indicate not only a quantitative expansion but a qualitative one in the theorisation of waqf in the advertisement of university finances in the discourse of sustainable university financing, a move out of peripheral Islamic finance issue to mainstream centre of interest in the discussion. Nonetheless, the patterns of the author productivity, indicating relatively low levels of output even in the case of major scholars (Rahman, A.A. with 6 publications), indicate that the area still lacks the research programmes that would allow researchers to come up with strong and falsifiable theoretical frameworks.

Such decentralized academic production, together with the unifying of fragmented thematic groups, suggest that waqf research has taken advanced analytical instruments (PLS-SEM, behavioral constructs, sustainability frame) without realizing theoretical supremacy researchers are applying various set lenses (historical-cultural, behavioral-psychological, sustainability-oriented) to educational waqf without bringing these views to coherent explanatory frameworks. The temporal development that can be seen in Figure 5 purple cluster historical foundations (2020-2021), green cluster behavioral methodologies, then yellow cluster sustainability frameworks (2023-2024) is maturation of the methods, but also of the theoretical drift as the more recent approaches seem to be taking shape, before the older methodologies can bring in any cumulative knowledge. This trend implies that the area needs conscious theoretical unification to prevent the rapid creation of single studies providing part of the fragmented literatures, and which here could be a meta-analysis or integrative review to synthesize results on clusters, subsequently creating the coherent frameworks explaining educational waqf phenomena in various contexts (Hassan & Shahid, 2010; Sabit et al., 2020).

Practical Implication

The implications arising out of such a bibliometric analysis are directly criticizing the existing strategies of implementing waqf in education, and prescribing strategic shifts of several stakeholder groups. To university administrators, institutional concentration pattern that reveals the leading universities structure Universiti Teknologi MARA (20 publications), International Islamic University (18), and Universiti Kebangsaan Malaysia (16) over the research demonstrates that the majority of evidence-based practices are related to the unique Malaysian institutional setting which might not be applicable to other universities that function under different regulations, cultures, or economic settings.

This territorial bias that is further increased by the collaboration network that displays the centrality of Malaysia with low ties to both the Gulf, South Asian and African settings. It is reflected by the fact that non-Malaysian institutions cannot just take published models of waqf and apply them in complete context. The low correlation (Figure 5) between blue cluster educational keywords and the green cluster behavioral constructs suggests that current literature lacks the proper information on micro level stakeholder engagement strategies (alumni cultivation, student awareness campaign, staff participation program) that should actually be applied by universities to achieve successful waqf fundraising programs.

This means that administrators must treat published waqf models with sufficient scepticism as applying to other contexts and invest in institution-specific pilot studies that help apply these

common assumptions to local contexts and stringently judge results. The analysis demonstrates to policymakers that there is urgent need to harmonize regulatory frameworks and knowledge sharing systems to curb the geographical disintegration that is present in Figure 4. This fact that Nigeria is alone, that the Middle East relations are not always strong, and that the South Asian state is not engaging at all, hints to the fact that the existing policy models do not encourage the cross-national learning so that individual countries should solve their issues with waqf integration on their own instead of relying on comparative feedbacks. The policymakers must focus on developing regional waqf research consortia (Southeast Asian, Gulf Cooperation Council, South Asian, African) that are systematic in listing experience of implementation, regulatory innovations in application and specific outcomes in various settings, establishing publicly accessible bodies of knowledge that can be utilized in policy formulation. More so, the fact that in Figure 5 the time has shifted to sustainability structures (yellow cluster: SDGs, accountability, stakeholder) but there was no depth in behavioral research indicates that policymakers are running the risk of enforcing macro-level waqf-SDG holistic alignments with neglecting the micro-prerequisite question of how regulatory designs influence individual contribution decisions, i.e. policy evaluation frameworks should provide behavioral outcome measures to the institutional performance (Hasan, 2011; Pitchay et al., 2015).

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