Towards Sustainable Development of Islamic Higher Education: A Meta-Analysis of Challenges And Opportunities

Desmaniar[1*] 📷 *, Rusli*[2]*, Aqil Teguh Fathani*[3] 📷 *, Novia Amirah Azmi*[4] 📷 *,*
Muhammad Mughni[5]*, Imam Rasikh Islami*[6] 📷 *, & Abdan Syukri*[7]

[1] Department of Islamic History and Civilization (Bachelor), Universitas Islam Negeri Imam Bonjol Padang, Padang, Indonesia
[2] Department of Islamic Education (Bachelor), Universitas Islam Negeri Imam Bonjol Padang, Padang, Indonesia
[3] Department of Government Affairs and Administration (Bachelor), Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia
[4] Department of Communication Studies (Bachelor), Universitas Perintis Indonesia, Padang, Indonesia
[5] Department of Islamic Studies, Prince Sattam bin Abdul Aziz University, Al-Kharj, Saudi Arabia
[6] Department of Modern History, Al-Azhar University, Cairo, Egypt
[7] Department of Islamic Science, Al-Azhar University, Cairo, Egypt

✉ bundodes20@gmail.com

Abstract

The aim of this paper is to describe the challenges and opportunities in the growth of sustainable development of Islamic higher education in Indonesia so as to construct an effective management system in terms of both quality and quantity. Such a system should enable us to evaluate the effectiveness of Islamic education in combating radicalization, terrorism, and sexual harassment, as well as promoting efforts to expand human resources. The Scopus database was searched for articles on "Higher Education" AND "Management" AND "Islam" OR "Muslim," yielding 141 papers pertinent to the main research topic. In Islamic higher education, the governance structure, structuralization, human resource capabilities, learning

methods, curriculum, and knowledge of technology continue to lag behind those of conventional higher education. Lack of domestic and international cross-sectoral collaboration activities has become a significant barrier to the improvement of Islamic higher education quality. Due to the study's limitations, a more precise measurement with a narrower scope is required to analyze the governance of the Islamic higher education system across regions to produce conclusions that can speed up governance changes. Furthermore, comparative research between two or more countries is required in future research so that particular answers to the issues of Islamic higher education in Indonesia may be established directly.

Keywords: *Challenges and Opportunities; Higher Education; Meta-Analysis; Sustainable Development*

INTRODUCTION

The purpose of this study is to analyze and describe the challenges and opportunities in the sustainable development of Islamic higher education in Indonesia to order to create a management system that has quality and quantity, so that it can compete with Southeast Asian and other countries. In addition, quality and quantity are also intended to provide an assessment of the characteristics of Islamic education in preventing issues of radicalism, terrorism, and sexual harassment, as well as promoting efforts to improve human resources. A good management structure in Islamic higher education will provide improvements in ethics and aesthetics, as well as the quality and quantity of educational management (Mawardi & Supadi, 2018). Exploration of value order is also needed by complying with local wisdom references that are balanced and accountable so as to create new advantages in improving Islamic higher education which is a human choice and preference in ensuring the future (Bela et al., 2021; Sahin, 2018).

Islamic education is defined as an esoteric spiritual framework through an educational process characterized by etiquette, practice, and moral training (Waghid, 2011). The definition of Islamic education

in earlier philosophical writings is concerned with *ta'dib*[1], goodness, and social significance (Alfurqan, 2020; Davids & Waghid, 2016; Sari & Saleh, 2020). Today's epistemology with an emphasis on Islamic education seeks Islamic resurrection, which begins with a literal restoration of the essence of Islamic pedagogical imagination established by predecessors in the Muslim past.

Islamic higher education with an emphasis on management is one of the cornerstones to Islamic culture, orienting education in accordance with sharia norms and the state constitution (Lukens-Bull, 2013). The relationship between Islamic higher education and human development and a sustainable society goes beyond memorization and practice. In accordance with the concept of sustainable development, which prioritizes ecologically beneficial ideas, it continues to assist the lives of the world's people through many sectors, with a concentration on education. In this context, Islamic Higher Education, as a component of religious education, is critical and is urged to play an active role in accomplishing the United Nations' Sustainable Development Goals (SDGs). Such education is capable of increasing human resources (HR), both in terms of potential leaders in diverse social community structures, and the development of science and technology that can aid with life difficulties. The cultivation of Islamic character and values is the primary purpose and function of Islamic education. Second, the formation of these characteristics and values results in enhanced intellectual capabilities (Abdullah, 2010; Hasyim, 2016). The results will provide a clear picture of the obstacles that Islamic higher education administrators must overcome to advance quality. On the other hand, the picture of

---

[1] The word ta'dib derives from Arabic and signifies training or self-discipline with the goal of improving one's behavior and manners. It's also possible for ta'dib to signify throwing a celebration or a feast, which implies acting in an appropriate manner (Ridwan, 2018; Sassi, 2018; Mukhyidin et al., 2020; Sassi, 2020).

future chances will be more open, as globalization and digitization present opportunities to advance Islamic higher education, particularly in Indonesia, through new innovations (Ichsan, 2020; Santoso & Khoirudin, 2018).

There are important elements in addressing the issue of Islamic higher education, namely "Plan, do, check, action" (Platje & Wadman, 1998), to reveal the implementation of education, research and its application, campus management and supporting facilities, network and partnership development, and productive business development by sustainable Islamic higher education. Management of Islamic Higher Education and its facilities must also have a master plan and strategic plan for campus development. The Masterplan contains short, medium, and long-term targets with the objectives of achieving the vision. The implementation of education is carried out by reorienting the curriculum by inserting sustainability content. Research and its application must have an umbrella and roadmap with clear benchmark goals which are directed to support the achievement of sustainable education development.

Indonesia faces a security problem, low morale, acts of violence, terrorism, and regional conflicts, as evidenced by current situations. The actions of a small number of individuals who identify as Islamic warriors have a negative impact on Islamic ideals and the Islamic world, particularly the Islamic education business (El-Rayess, 2020; Suyadi, 2022). Previous studies have identified the deficiencies of the Islamic higher education system in Indonesia which need to be overcome, including a learning system that must be planned more systematically, referring to the learning component that is oriented towards a new paradigm and the application of a contextual learning approach (Azra, 2015; Sholahuddin, 2005). Islamic learning should fostes good behavior, character formation, and moral values that will produce responsible human beings (Jackson, 2018; Sabki & Hardaker,

2013). Deficiencies in this regard require a novel approach to improving the quality of Islamic education in Indonesia, particularly for the younger generation as the inheritors of Islam, and for the state to place greater emphasis on the right attitude in accordance with Islamic Shari'a in order to strengthen the foundations of Islam.

Therefore, the research provides an analysis of the opportunities and difficulties that must be addressed by Indonesian Islamic higher education. Based on a Scopus-indexed collection of Reputable International Journals, a theoretical conception was developed in terms of two questions: (1) How does the mapping of Islamic higher education address the challenges that must be addressed to advance the quality and quantity of higher education? and (2) What are the opportunities that must be pursued, or are already being pursued to develop sustainable Islamic higher education? This paper addresses these questions using subjects, frameworks, and past research findings acquired from the Scopus database; the articles were examined in this study using a multi-step method that included article search and mapping of discussion topics.

METHOD

Research utilizing the Meta Analysis structure is crucial because it can measure and analyze the scope of statistics, find results of the scope and focus of new research, and evaluate research concepts that have been conducted so that new ideas and concepts emerge in the creation of future research (Gümüş et al., 2020). On the other hand, research utilizing the notion of meta-analysis can combine the results of previously conducted studies with those of studies that are still infrequently conducted (de Jesus et al., 2016; Fahimnia et al., 2015). In this study, the purpose of the meta-analysis is to identify new difficulties and opportunities in the scheme of generating Islamic higher education, so that in the future it will be clearer what higher

education is doing to establish sustainable management of Islamic higher education.

Two methods are employed in the meta-analysis study: performance analysis and science mapping (Serrano et al., 2019). Numerous bibliometric applications, such VosViewer (Eck & Waltman, 2020), CiteSpace (Liu et al., 2013) and Histcite (Shah et al., 2019) have been developed to assist scholars in analyzing data in a variety of scientific subjects, particularly the social sciences and humanities. In this study, VosViewer was used to assess and characterize the difficulties and opportunities associated with Islamic Higher Education's sustainable management.

In this study, data were gathered from the Scopus database pertaining to "Higher Education" AND "Management" AND "Islam" OR "Muslim." Scopus is employed because it is the most comprehensive and reliable database for scientific research; it also contains numerous abstracts from peer-reviewed literature, such as scientific journals, literature pieces, books, and international conference proceedings (Liao et al., 2019). Even though there are numerous researches in the database, they are still filtered such that this study only focuses on Journal Articles , Conference Papers, Conference Reviews, and Review Articles. In this work, a systematic review methodology guided by a set of inclusion and exclusion criteria was utilized to exclude papers that were irrelevant to the purpose, research questions, and scope of the statistical search. Sánchez et all state that the first stage in performing meta-analysis study is to examine the existing database, namely Scopus, and then make adjustments and determine the repercussions of employing the database (Sánchez et al., 2017). By employing the double screening procedure to search the Scopus database, researchers were able to obtain 41 papers pertinent to the study's core topic.

To view the growth of the empirical knowledge area examined in the research, the researcher has adopted an inductive methodology through scientific meta-analysis; the classification of this research literature is supplemented by a deductive examination of real data. Therefore, the purpose of this study is to combine inductive and deductive techniques using a process of data collection known as triangulation, merging various data sources and authors (Scheffler & Brunzel, 2020). VosViewer is utilized for analysis due to its capacity to work efficiently with massive data sets and give diverse visualizations, analysis, and unique research. The researcher chose to conclude the meta-analysis with two network visualization analyses: a density map based on the occurrence of common keywords and a density map based on network data connected by co-written items. Co-occurrence analysis of keyword words indicates the frequency with which two terms co-occur in a batch of blog entries (Sun & Yuan, 2020). For this reason, a density map based on the recurrence of shared keywords is employed, specifically the complete count technique, which assigns equal weight to each chain of events.

Indicators used in the sustainable management of Islamic higher education are institutional support, technology, course development and instructional design, learning structure and curriculum, human resources, and implications for social and economic development. These indicators support the acquisition of focused and detailed information regarding the challenges and opportunities of higher education (Veidemane, 2022; Webb & Rodriguez, 2022; Žalėnienė & Pereira, 2021). The environment is the primary priority of these Islamic nations in their worldwide competition.

RESULT AND DISCUSSION

Islamic Higher Education Statistics in Indonesia

Statistics from the Ministry of Religion (Kementrian Agama RI abbreviated *Kemenag* in Bahasa Indonesia) serve as the major reference point for mapping 900 institutions of Islamic higher education in Indonesia, which are separated into colleges, institutes, and universities. Islamic higher education comprises only 22% of higher education supervised by the Ministry of Education and Culture (Kementrian Pendidikan dan Kebudayaan abbriviated *Kemdikbud* in Bahasa Indonesia) (Kementrian Agama RI, 2022). With only 20% or less higher education institutions supervised compared with the Ministry of Education and Culture, the Ministry of Religion should be motivated to be more stringent in managing and developing the potential of higher education from the institutional sector, human resources, learning structures, and curriculum, as well as in creating a competitive environment to enhance the quality of education.

From an institutional standpoint, it is possible to hold forum discussions with the Ministry of Education and Culture in order to expedite the development of optimal structuralization, institutional collaboration to improve the quality of Islamic higher education, the skills and integrity of human resources, and the accuracy of an Islamic higher education curriculum consistent with Pancasila values. Collaboration with Islamic countries with a more evolved and modern Islamic religious education system, such as Saudi Arabia, Morocco, Qatar, Jordan, and Iraq, enables the industry to be expanded into the international scene. Institutional strengthening offers organized reinforcement and integration in anticipation of moral and security crises, violence, terrorism, and regional conflicts (El-Rayess, 2020). On the other side, this strengthening will gradually restrict the spread of groups who falsely claim to be jihadists. The Islamic higher education

system must pay special attention to these issues if it is to become more developed and contemporary, given the increasing rivalry in the education sector brought on by the advancing globalization system and its technologies.

Research Statistics Data of Islamic Higher Education in Indonesia

Over time, the data on the development of studies that have been conducted on Islamic higher education based on the Scopus Database ("Higher Education" AND "Management" AND "Islam" OR "Muslim") has fluctuated (2011-2022) (Figure 1). The fluctuating data illustrates that academics are not interested in researching Islamic higher education, even though this section is the most important sector in mapping current ongoing problems, detecting future threats, and planning future Islamic higher education. The absence of seriousness in dealing with the times and technology without eliminating the element of society is a concern for current research and should prompt academics to be more severe in developing research on Islamic higher education. The development of the Industry 4.0 Era has made everyone more individualistic and opposed to the environment (Kurniawan et al., 2022). This is very dangerous because the element of sustainability cannot be separated from the surrounding environment (Fahimnia et al., 2015). Islamic higher education is currently a fundamental right in the value of Muslim life because it has a significant role in supporting human life. The implementation and development of educational studies must also be adapted to the conditions and social situations that exist in society. Education is described as a never-ending experiment as long as there is human life in the world (Ishak et al., 2021). Thus, because education is part of human culture and civilization that continues to develop, this statement aligns with the identity of humans who have creativity and innovation in the times (Hardiani, 2018).

Figure 1
Increased Research Concentrating on Islamic Higher Education Yearly

Documents by year — Scopus
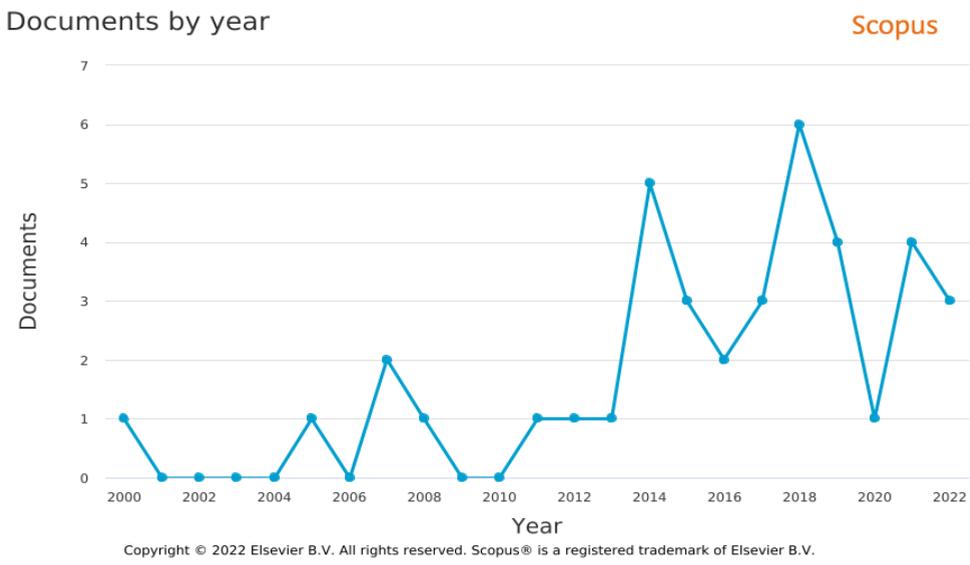
Source: Scopus.com

Islamic higher education does not only play a role in creating the younger generation as agents of change, but also creators of real change. Islamic higher education should become a patron in terms of formal education, and what is meant here is education that can change the mindset of the nation's children, and innovative education that encourages creativity and the innovative power of the nation's children (Hasan, 2016). As agents of innovation, the young generation can make an essential and significant contribution to implementing applicable sustainable development concepts.

At the ASEAN level, the quality of education in Indonesia as shown by the Indonesian education index is still low, and competitiveness is weak, based on the report from the Global Talent Competitiveness Index 2019 (INSEAD et al., 2019). The quality of Indonesian human resources, which includes indicators of income per capita, education, infrastructure, information and communication computer technology, environment, gender, tolerance, and political

stability is in 6th place with a score of 38.61. This result is far below Singapore with a score of 77.27, as well as Malaysia with a score of 58.62 and Brunei Darussalam with 49.91. It is close to the Philippines with 40.94, and Thailand with 38.61 (Gerintya, 2019). Meanwhile, in the 2015 UN development program report, Indonesia ranks 110 out of 187 countries in the Human Development Index (HDI) with a figure of 0.684. With this figure, Indonesia is still lagging two ASEAN neighboring countries, namely Malaysia (ranked 62) and Singapore (ranked 11).

Based on the above, educational goals will also be the foundation of the government's efforts to encourage the achievement of sustainable development goals and targets in the era of Sustainable Development Goals (SDGs) until 2030 based on the direction of the United Nations Forum, which was agreed on August 2, 2015. The concept of development in the Sustainable Development Goals aims to improve the quality of human life, prosper the current generation and prepare decent conditions for future generations(Sachs, 2015). It also seeks to develop the quality of human resources, especially education, so that people can become fully human, especially in environmental and social networks of fellow living beings. Improving education for the people of Indonesia will spur the achievement of other goals and targets in the 17 SDGs points, significantly increasing Indonesia's human development index. Moreover, in the management element of higher education, it is necessary to involve interested actors (public, private, academic, civil society, and social entrepreneurs) in achieving the target, which is the goal of creating higher quality higher education. This is supported by establishing national and international collaborations to improve technology mastery, course development, instructional design, learning and curriculum structures, human resources, social and environmental implications, and harmonious living.

The Challenges and Opportunities for Higher Education Governance

The statistical data in Figure 1 is the number of articles published until November 2021, the increase in research attention and interest has increased since 2008 and continues to fluctuate (with a significant increase) until 2022. The growth is visible in 2013-2014 and 2016- 2018, from 1 document to 6 documents. This increase is also inseparable from the global agreement at the United Nations in giving their attention to 17 sustainable development goals. Point 4 focuses on a higher quality education system (UNESCO, 2020). To achieve these targets, ten targets must be met to minimize future challenges and provide more significant opportunities to ensure the availability of quality and high quantity education. These include free education; equality of access to education; equality of access to primary, vocational, and higher education; increase in the number of people with relevant skills for financial success; elimination of all discrimination education; universal literacy and numeracy; education for global citizenship; building and improving inclusive and safe schools; expanding higher education scholarships for developing countries; increasing the supply of quality teachers in developing countries (Donina et al., 2015).

Education for Sustainable Development (ESD) is explicitly devoted to general education. Still, it is indirectly closely related to the characteristics and development of Islamic higher education to contribute to achieving the SDGs (Assalihee & Boonsuk, 2022; Suyadi et al., 2022) by *first* developing cross-sectoral the sustainability competencies needed to address the many different sustainability challenges and link the other SDGs to one another; and *second* ESD can equip learners with specific cognitive, social-emotional, and behavioral learning outcomes that enable them to deal with the challenges of each SDG.

To allow everyone around the world to act in support of the SDGs, all educational institutions should consider the responsibility to approach sustainable development issues intensively, encourage the development of sustainability competencies, and develop specific learning outcomes related to all the SDGs. Therefore, it is very important to include SDG-related content in the curriculum and use an action-oriented transformative pedagogy (Gonzalle-Diaz et al., 2015; Haro-de-rosario et al., 2018). Education officials, policymakers, educators, curriculum developers, and others are being asked to rethink education to contribute to SDG achievement from now to 2030. This document provides orientation on sustainability competencies and specifications, an overview of relevant cognitive, socioemotional, and behavioral learning outcomes with educational objectives, and an outline of what is needed to implement learning for the SDGs through ESD.

On the other hand, understanding and mastering information and communication technology (ICT), does not lead to better learning outcomes by itself. Even ICT if it is only used as a primary material without proper pedagogical methods will only lead to shallow learning. ICT is a tool that can empower teachers and students to teach differently and develop innovative pedagogies (Barrett, 2017). Teachers have an important role and need to be authorized to use ICT both in classroom settings and in professional development. This needs to be considered because it encourages the creation of creativity and innovation from within the teaching method.

The Challenges and Opportunities for Islamic Higher Education Governance: A Meta-Analysis

Export data originating from the Scopus database is associated with the keywords used; the researcher utilizes VosViewer Software to map the keywords' occurrence. The researchers used the minimal

number of occurrences of a keyword, which was three, and discovered 108 correlations between keywords. The following tabulation results are based on the "Total Strength of Keyword Network" (Table 1 and Figure 2).

The 15 keywords in Table 1 are mostly focused on how the organization or management of an institution can manage to improve the quality and quantity of higher education institutions. The increase in quality and quantity is also supported by increasing the capacity of human resources (teachers, lecturers, staff, etc.) in carrying out teaching, research, and service activities. In line with these results, Littledyke et al. (2013) stated that a clear vision, leadership, and support for high Education for Sustainability (EfS) are essential. Concerning leadership and support from human resources, external actors or supporting actors are needed in creating a complete education system and significant developments to create a strong competitive drive. As a first step, Academia (A) and Government (G) are the main actors in improving the governance of higher education to create more competent education competitiveness at the national and international levels, but they need the role and encouragement from Business-Private (B) actors because these can encourage by informal networks and substantial funding. Currently, it can be seen that there are many scholarships and fresh funds given to improve the quality of Indonesia's human resources with the target of supporting human resources of the best quality and quantity by 2030.

Furthermore, this collaborative relationship with Community (C) actors encourages the younger generation to become interested in mastering science, especially in technological developments. At the same time, Media (M) plays its role in disseminating information and opportunities, scholarships, network information, and creating directions to generate attraction. Each actor in the governance of higher education has their main work that other actors cannot do.

What needs to be done is to strengthen each actor in establishing coordination and collaboration to improve Indonesian higher education quality and quantity. The description of the network collaboration model will provide more significant opportunities to create human resources that have the best quality and quantity in 2030 and achieve Indonesia's Golden Indonesia generation in 2045.

From another point of view that is a critical player in governance, namely the existence of leadership that has high integrity, motivation, and discipline, a distributed leadership model in which individuals are responsible and collectively empowered to act in ways relevant to the system model for sustainable education (Crabtree et al., 2021). The systems model for EfS coordination integrates governance, curriculum, and infrastructure management approaches (Saud & Ashfaq, 2021). Then, in supporting institutions to manage, lead and maintain the quality and quantity of education, a concept of coordination and collaboration is needed to improve the quality of education , increasing the ability to manage and use technology, mastering broader knowledge, and accelerating the transfer of knowledge to the next generation. Consensual agreement and collaborative practice are essential for achieving collective views and coordinated action (Krizek et al., 2012). Sustainability initiatives in higher education can develop through a series of phases labeled: grassroots; executive acceptance for sustainability; visionary campus leaders; and a fully actualized and integrated campus community.

Table 1
Weight of Total Link Strength

Keywords	Cluster	Weight \<Links\>	Weight\<Total link strength\>
Education	1	88	230
Human	2	60	189
Behaviour	4	45	177
Organization and management	4	62	165
Higher education	1	57	161
Teaching	1	51	125
Students	1	38	109
Coordination	4	47	97
Curriculum	3	47	81
Human resource management	1	33	77
Female	2	36	71
Medical education	3	38	71
Public health	3	44	69
University	3	41	68
Research	4	37	68
International cooperation	3	43	67

Source: Authors Analysis

Moreover, to maintain and increase the quality and quantity of education, it is necessary to engage in national and worldwide collaborations. National and international cooperation are synonymous with the manner in which one institution of higher education cooperates with another institution of higher education. This collaboration has at least four goals: education, curriculum, research, service, and networking (Meisel et al., 2021). This rapid growth poses the challenge of increasing system resources and capabilities while maintaining quality. As a result, networked universities (NUs) are organizing themselves as collaborative networks and have become attractive models for addressing the complexities brought about by globalization, rapidly changing technologies, dynamic knowledge growth, and highly specialized

areas of expertise. Red Universitaria Mutis (Red Mutis) is a prime example of regional NUs that can capitalize on the strengths, collaborations, information, and expertise of regional and worldwide institutions that are networked. Red Mutis has a separate structure comprised of academic and non-academic university areas, with vertical coordination (via steering and management) between the various university sectors (Meisel et al., 2021).

Figure 2
Keywords network Visualization
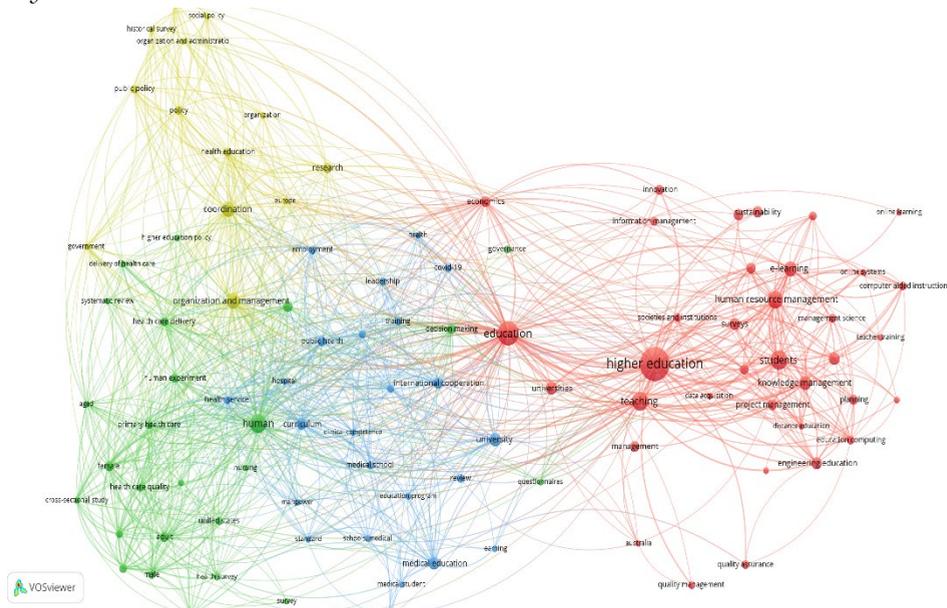
Source: Authors' Analysis

The results of the researchers' processing of data from 108 meetings are depicted in Figure 2, which became the primary focus of previous studies, which were grouped into four main clusters represented by large nodes of each color and comprised of Higher Education-Education, Collaboration-International Cooperation, Human, and Curriculum. These words describe interrelationships and illustrate the linkage between events, connecting the study to themes with which it is associated and demonstrating the frequency of co-

occurrence. On the other hand, opportunities exist for increasing the quality of higher education in the future; opposite to the preceding line, this image can also identify weaknesses and issues in the higher education system that must be addressed.

We have also developed a similarity graph (Figure 2), which reveals the relationship between the central terms discovered in the work of Table 1 as results from reading 204 documents. Due to the fact that the scope of this study is education governance with an emphasis on the administration of education, curriculum, collaboration, and human resources, it is essential to focus on the following: *First*, Islamic higher education management systems and learning methods are comprehensive. They must focus on the main issue, namely assessing and paying attention to the sustainability of very fast global competitiveness and increasingly rapid technological developments (Prigent, 2019). This issue must be driven by solid institutions, government support, funding and organized management, and careful planning so that the quality and quantity of higher education can increase and be globally competitive (Molina-Garcia & Martinez-Ponce, 2020; Wang & Remchukova, 2021). Implementing management and technology support can improve the quality of higher education, and of the management of and information about higher education governance. So doing quickly creates innovation according to primary and supporting needs.

Second, international cooperation and collaboration is an option for constructing a more extensive network, consequently, with the expansion of this network, it will be simpler to develop and accelerate the growth of human resources via cooperation in training, student exchanges, education staff, and employees. On the other hand, this collaboration gives individual benefits and multiple benefits, particularly for Islamic higher education institutions' ability to catch up with other nations. Indonesia and Malaysia have bilateral relations

in different sectors. Thus, it is possible to build collaboration in the higher education institution sector to encourage these two nations to compete more competitively at the ASEAN or international level. Conversely, this collaboration promotes other countries to become more competitive by enhancing their ability to adapt to the global environment.

Third, solid and structured Islamic higher education governance and an extensive network of collaboration indirectly encourages the development of human resources consisting of students, educators, teachers, employees, employees, and leaders to continue to be creative and innovative to move swiftly. A difficult lesson for developing nations is that education must aspire to be the central pillar of economic progress. The curriculum-based learning development index will improve automatically due to the implementation of the previous three principles. For the curriculum to run efficiently by the external goals, fundamental, gradual, and consistent modifications are paramount.

Indirectly, we must recognize that none of the variables and indicators in the graphs and tables can operate alone or rely on a single political party. The participation of other players in addressing the future issues of higher education and expanding the chances for speeding the development of higher quality higher education is of great significance. The involvement of the Business-Private sector (B) fosters non-formal networks and robust financial access to the networks. It allows these players to promote the improvement of human resource quality through a specialized approach and its unique method.

In addition, the involvement of Community (C) actors encourages individuals to value higher education more than employment. Given the significance of attaining the 2030 goals and Indonesian Gold by 2045, community support must be enhanced, so

that future generations are more prosperous and able to compete globally. In the meantime, Media (M) fulfills its role by sharing information and possibilities, scholarships, network information, and directing individuals toward their desired schools. In contrast, online, social, and internet media are much simpler to access than traditional channels. The enormous number of users will make it easier for the media to spread information to the younger generation of higher education aspirants.

Recommendations for Islamic Higher Education Governance

For the resilience of human resources and the sustainability of the future 'golden generation', the researchers recommend that the government and policymakers pay more attention to policies, development efforts, technology, investment, and discussions regarding the potential of education -- from basic education to higher education. Giving greater attention to potential of this sector will attract the interest and attention of the community, resulting in increased interest in being able to receive an education; this will result in a more expansive field or employment options. This research focuses on academic studies conducted by non-profit organizations, non-governmental organizations, government departments, and other institutions that have been published in Scopus-indexed journals. In spite of methodological constraints, exact patterns and motions in the data that were related to one another were identified, yielding intriguing new concepts and scope.

The issue of Islamic higher education governance, with an emphasis on education, international collaboration and cooperation, human resources, and curriculum, has extensive, intricate, and interconnected components. Moreover, because it is part of the major problem that impacts other sectors, its management is highly dependent on the government and other stakeholders' ability to

develop sustainable policies for Islamic higher education. More tangible in its administration is the participation of stakeholders to ensure performance accountability and the implementation of policies (Fahimnia et al., 2015). Community participation, the media, business, and academics are reflected in the design and model of public policies governing the administration of sustainable higher education. In the process of creating policies for the management of higher education, the government's adaptability to meet the needs of society is demonstrated by the policies enacted. In addition, the participation of private parties such as corporations is required to ensure that the management of higher education takes into account economic interests, community welfare, the satisfaction of fundamental needs, and environmental sustainability.

In general, the accountability that occurs as a result of the collaborative process between government and society, business, media, and academia increases the desire to incorporate higher education management into policy in order to ensure the future sustainability of a more just and enlightened human life. In this instance, the chosen management strategy can unite the interests of all stakeholders (Restrepo et al., 2021). Moreover, in respect to the strategic actors involved, the ongoing power relations, the methods employed, and the efficacy of the resulting policies, collaboration is the key to effective governance, as it assures the coherence of all actors involved in their actions.

CONCLUSION

It is anticipated that research on the creation of sustainable Islamic higher education will rise, thereby maturing its administration. There are still numerous opportunities for governance to be enhanced. Future research should investigate the possibility of analyzing the governance content of Islamic higher education in

Indonesia from a more internal perspective. The objective should be to identify research gaps and directions more precisely and concretely. Comparison research with comparable nations such as Malaysia is required from a larger perspective in order to describe the sustainability of Islamic higher education in Indonesia. These outcomes will be observed in depth in the comparison of institutions, governance, vision, and mission, as well as the future aims for improved Islamic higher education, opportunities for such governance are essential for progress. The empirical findings of this study have ramifications for other research strategies and other topics in order to promote the sustainability of Islamic higher education governance in Indonesia. In conclusion, this paper makes a significant addition to Islamic higher education in Indonesia by presenting a fresh perspective on the opportunities and challenges that are currently being addressed or will be in the future.

REFERENCES

Abdullah, B. (2010). Reformasi pendidikan di Indonesia dalam perspektif pendidikan Islam [Education reform in Indonesia in the perspective of Islamic education]. *Millah*, *9*(2), 301–318. https://doi.org/10.20885/millah.vol9.iss2.art9

Alfurqan. (2020). Evolution and modernization of Islamic education in Minangkabau. *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies*, *16*(1), 82–99. https://doi.org/10.18196/AIIJIS.2020.0114.82-98

Assalihee, M., & Boonsuk, Y. (2022). Reforming religion-based higher education for sustainable development: The case of Islamic studies international program at Prince of Songkla University. In M. Öztürk (Ed.), *Engagement with sustainable development in higher education: Universities as transformative spaces for sustainable futures* (pp. 67–82). Springer International Publishing. https://doi.org/10.1007/978-3-031-07191-1_5

Azra, A. (2015). Genealogy of Indonesian Islamic education: Roles in the modernization of Muslim society. *Heritage of Nusantara: International Journal of Religious Literature and Heritage*, 4(1), 85–114. https://doi.org/10.31291/hn.v4i1.63

Barrett, A. M. (2017). Making secondary education relevant for all: Reflections on science education in an expanding sub-sector. *Compare: A Journal of Comparative and International Education*, 47(6), 962–978. https://doi.org/10.1080/03057925.2017.1343127

Bela, D. R. S., Nurmandi, A., Muallidin, I., & Kurniawan, D. (2021). Meta-analysis the root of terrorism from the perspektif Islamic movement in Indonesia. *AL-IHKAM: Jurnal Hukum & Pranata Sosial*, *16*(2), 393–420. https://doi.org/10.19105/al-lhkam.v16i2.4817

Crabtree, R. M., Briggs, P., & Woratschek, H. (2021). Student engagement and barriers to implementation: The view of professional and academic staff. *Perspectives: Policy and Practice in Higher Education*, *25*(4), 144–150. https://doi.org/10.1080/13603108.2021.1946446

Davids, N., & Waghid, Y. (2016). *Ethical dimensions of Muslim education*. Springer.

de Jesus, A., Antunes, P., Santos, R., & Mendonça, S. (2016). Eco-innovation in the transition to a circular economy: An analytical literature review. *Journal of Cleaner Production*, *172*, 2999–3018. https://doi.org/10.1016/j.jclepro.2017.11.111

Donina, D., Meoli, M., & Paleari, S. (2015). Higher education reform in Italy: Tightening regulation instead of steering at a distance. *Higher Education Policy*, *28*(2), 215–234. https://doi.org/10.1057/hep.2014.6

Eck, N. J. V., & Waltman, L. (2020). *Vosviewer manual version 1.6.15*. https://www.vosviewer.com/documentation/Manual_VOSviewer_1.6.15.pdf

El-Rayess, S. A. (2020). Epistemological shifts in knowledge and education in Islam: A new perspective on the emergence of radicalization amongst Muslims. *International Journal of Educational Development*, *73*, 102148–102148. https://doi.org/10.1016/j.ijedudev.2019.102148

Fahimnia, B., Sarkis, J., & Davarzani, H. (2015). Green supply chain management: A review and bibliometric analysis. In *International Journal of Production Economics* (Vol. 162, p. 114). Elsevier. https://doi.org/10.1016/j.ijpe.2015.01.003

Gerintya, S. (2019). Indeks pendidikan Indonesia rendah, daya saing pun lemah [Indonesia's education index is low, competitiveness is also weak] [HTML]. *Tirto*. https://tirto.id/indeks-pendidikan-indonesia-rendah-daya-saing-pun-lemah-dnvR

Gonzalle-Diaz, B., Gomez, M., & Molina, A. (2015). Configuration of the hotel and non hotel accommodations: An empirical approach using network analysis. *International Journal of Hospitality Management*, *48*, 39–51. https://doi.org/10.1016/j.ijhm.2015.03.010

Gümüş, S., Bellibaş, M. Ş., Gümüş, E., & Hallinger, P. (2020). Science mapping research on educational leadership and management in Turkey: A bibliometric review of international publications. *School Leadership and Management*, *40*(1), 23–44. https://doi.org/10.1080/13632434.2019.1578737

Hardiani, D. R. (2018). *Implementasi Sustainable Development Goals (SDGs) dalam pembangunan kota berkelanjutan di Jakarta [Implementation of Sustainable Development Goals (SDGs) in the development of sustainable cities in Jakarta]* [HTML]. https://www.researchgate.net/publication/325312873_Implementasi_Sustainable_Development_Goals_SDGs_dalam_Pembangunan_Kota_Berkelanjutan_di_Jakarta

Haro-de-rosario, A., Sáez-martín, A., & Caba-pérez, M. C. (2018). Using social media to enhance citizen engagement with local

government: Twitter or Facebook ? *New Media and Society*. https://doi.org/10.1177/1461444816645652

Hasan, I. (2016). Meninjau ulang kebijakan Pemerintahan bidang pendidikan tinggi keagamaan Islam [Reviewing Government policies in the field of Islamic religious higher education]. *Islamadina*, *17*(2), 1–20. https://doi.org/10.30595/islamadina.v0i0.1322

Hasyim, F. (2016). Islamic education with multicultural insight an attempt of learning unity in diversity. *Global Journal Al Thaqafah*, *6*(2), 47–58. https://doi.org/10.7187/GJAT11320160602

Ichsan, M. (2020). Islamic philantrophy and Muhammadiyah's contribution to the Covid-19 control in indonesia. *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies*, *16*(1), 114–131. https://doi.org/10.18196/AIIJIS.2020.0116.114-130

INSEAD, the Adecco Group, & Tata Communications. (2019). *The 2019 Global Talent Competitiveness Index* (B. Lanvin & F. Monteiro, Eds.). INSEAD.

Ishak, Z., Abbas, R. A., & Karunanithi, V. T. (2021). Methodology to investigate factors for collaboration tool adoption in academia during pandemic. *2021 IEEE 11th IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE)*, 137–140. https://doi.org/10.1109/ISCAIE51753.2021.9431808

Jackson, R. (2018). Paradigm shift in religious education? A reply to Gearon, or when is a paradigm not a paradigm? *Journal of Beliefs & Values*, *39*(3), 379–395. https://doi.org/10.1080/13617672.2018.1469327

Kementrian Agama RI. (2022). *Nomor statistik perguruan tinggi Islam neger-swasta di Indonesia [Statistical number of public-private Islamic universities in Indonesia]* [Direktorat Pendidikan Tinggi Keagamaan Islam (Diktis)]. Kementrian Agama Republik Indonesia. http://diktis.kemenag.go.id/bansos/cari_nspt.php

Krizek, K. J., Newport, D., White, J., & Townsend, A. R. (2012). Higher education's sustainability imperative: How to practically respond? *International Journal of Sustainability in Higher Education*, *13*(1), 19–33. https://doi.org/10.1108/14676371211190281

Kurniawan, T. A., Dzarfan Othman, M. H., Hwang, G. H., & Gikas, P. (2022). Unlocking digital technologies for waste recycling in Industry 4.0 era: A transformation towards a digitalization-based circular economy in Indonesia. *Journal of Cleaner Production*, *357*, 131911. https://doi.org/10.1016/j.jclepro.2022.131911

Liao, H., Tang, M., Li, Z., & Lev, B. (2019). Bibliometric analysis for highly cited papers in operations research and management science from 2008 to 2017 based on Essential Science Indicators. *Omega (United Kingdom)*, *88*, 223–236. https://doi.org/10.1016/j.omega.2018.11.005

Littledyke, M., Manolas, E., & Littledyke, R. A. (2013). A systems approach to education for sustainability in higher education. *International Journal of Sustainability in Higher Education*, *14*(4), 367–383. https://doi.org/10.1108/IJSHE-01-2012-0011

Liu, X., Zhang, J., & Guo, C. (2013). Full-text citation analysis: A new method to enhance scholarly networks. *Journal of the American Society for Information Science and Technology*, *64*(9), 1852–1863. https://doi.org/10.1002/asi.22883

Lukens-Bull, R. A. (2013). *Islamic higher education in Indonesia: Continuity and conflict*. Palgrave Macmillan New York. https://doi.org/10.1057/9781137313416

Mawardi, D., & Supadi, S. (2018). Concentration on learning program development in Islamic education. *Al-Hayat: Journal of Islamic Education*, *2*(2), 213–213. https://doi.org/10.35723/ajie.v2i2.35

Meisel, J. D., Montes, F., Ramirez, A. M., Lemoine, P. D., Valdivia, J. A., & Zarama, R. (2021). Network analysis of collaboration in networked universities. *Kybernetes*, *51*(4), 1341–1364. https://doi.org/10.1108/K-10-2020-0648

Molina-Garcia, A., & Martinez-Ponce, J. (2020). Challenges to achieve quality education for all in the 2030 agenda, information and communication technologies (ICTs), and learning theories. In W. L. Filho, A. M. Azul, L. Brandli, P. G. Özuyar, & T. Wall (Eds.), *Quality Education* (pp. 78–89). Springer. https://doi.org/10.1007/978-3-319-95870-5_112

Mukhyidin, I., Junanah, & Susilo, M. J. (2020). Analisis konsep pendidikan Islam humanisme religius menurut Abdurrahman Mas'ud [Analysis of the concept of religious humanism Islamic education according to Abdurrahman Mas'ud]. *Millah*, *20*(1), 33–62. https://doi.org/10.20885/millah.vol20.iss1.art2

Platje, A., & Wadman, S. (1998). From Plan-Do-Check-Action to PIDCAM: The further evolution of the deming-wheel. *International Journal of Project Management*, *16*(4), 201–208. https://doi.org/10.1016/S0263-7863(97)00031-8

Prigent, S. (2019). 'Education for All' in Cambodia: Democratic educational and children's empowerment global values facing state patronage. *The Asia Pacific Journal of Anthropology*, *20*(1), 1–21. https://doi.org/10.1080/14442213.2018.1548643

Restrepo, N., Lozano, S., & Anton Clavé, S. (2021). Measuring institutional thickness in tourism: An empirical application based on social network analysis. *Tourism Management Perspectives*, *37*, 100770. https://doi.org/10.1016/j.tmp.2020.100770

Ridwan, M. (2018). Konsep tarbiyah, ta'lim dan ta'dib dalam Al-Qur'an [The concepts of tarbiyah, ta'lim and ta'dib in the Qur'an]. *Nazhruna: Jurnal Pendidikan Islam*, *1*(1), 37–60. https://doi.org/10.31538/nzh.v1i1.41

Sabki, A. A., & Hardaker, G. (2013). The madrasah concept of Islamic pedagogy. *Educational Review*, *65*(3), 342–356. https://doi.org/10.1080/00131911.2012.668873

Sachs, J. D. (2015). *The age of sustainable development*. Colombia University Press.

Sahin, A. (2018). Critical issues in Islamic education studies: Rethinking Islamic and western liberal secular values of education. *Religions*, *9*(11), 335. https://doi.org/10.3390/rel9110335

Sánchez, A. D., de la Cruz Del Río Rama, M., & García, J. Á. (2017). Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS. *European Research on Management and Business Economics*, *23*(1), 8–15. https://doi.org/10.1016/j.iedeen.2016.02.001

Santoso, M. A. F., & Khoirudin, A. (2018). Tipologi filsafat pendidikan Islam: Kajian konsep manusia dan tujuan pendidikan berbasis filsafat Islam klasik [Typology of Islamic educational philosophy: Study of human concepts and educational goals based on classical Islamic philosophy]. *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies*, *14*(1), 75–100. https://doi.org/10.18196/AIIJIS.2018.0081.75-100

Sari, R., & Saleh, M. N. I. (2020). Readiness to implement inclusive education in Muhammadiyah elementary schools of Yogyakarta. *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies*, *20*(2), 263–287. https://doi.org/10.18196/AIIJIS.2020.0124.263-287

Sassi, K. (2018). Ta'dib as a concept of Islamic education purification: Study on the thoughts of Syed Muhammad Naquib Al-Attas. *Journal of Malay Islamic Studies*, *2*(1), 53–64. https://doi.org/10.19109/JMIS.v2i1.2541

Sassi, K. (2020). Prinsip-prinsip epistemologi pendidikan Islam paradigma tauhid Naquib Al-Attas [The epistemological principles of Islamic education in the monotheistic paradigm of Naquib Al-Attas]. *Millah*, *20*(1), 135–172. https://doi.org/10.20885/millah.vol20.iss1.art6

Saud, M., & Ashfaq, A. (2021). NGOs schools are promoting education for sustainable development in rural areas. *Globalisation, Societies*

and Education, *20*(5), 1–13. https://doi.org/10.1080/14767724.2021.1993796

Scheffler, M., & Brunzel, J. (2020). Destructive leadership in organizational research: A bibliometric approach. *Scientometrics*, *125*(1), 755–775. https://doi.org/10.1007/s11192-020-03621-3

Serrano, L., Sianes, A., & Ariza-Montes, A. (2019). Using bibliometric methods to shed light on the concept of sustainable tourism. *Sustainability (Switzerland)*, *11*(24). https://doi.org/10.3390/SU11246964

Shah, S. H. H., Lei, S., Ali, M., Doronin, D., & Hussain, S. T. (2019). Prosumption: Bibliometric analysis using HistCite and VOSviewer. *Kybernetes*, *49*(3), 1020–1045. https://doi.org/10.1108/K-12-2018-0696

Sholahuddin, S. (2005). Humanisasi-inklusifisasi pendidikan Islam dalam konteks multikulturalisme [Humanization-inclusiveization of Islamic education in the context of multiculturalism]. *Millah*, *5*(1), 113–120. https://doi.org/10.20885/millah.vol5.iss1.art8

Sun, J., & Yuan, B. Z. (2020). Mapping of the world rice research: A bibliometric analysis of top papers during 2008–2018. *Annals of Library and Information Studies*, *67*(1), 56–66. https://doi.org/10.56042/alis.v67i1.30297

Suyadi. (2022). Learning taxonomy of Islamic education. *Millah*, *21*(2), 361–410. https://doi.org/10.20885/millah.vol21.iss2.art3

Suyadi, Nuryana, Z., Sutrisno, & Baidi. (2022). Academic reform and sustainability of Islamic higher education in Indonesia. *International Journal of Educational Development*, *89*, 102534. https://doi.org/10.1016/j.ijedudev.2021.102534

UNESCO. (2020). *Sustainable Development Goal 4 (SDG 4)* [HTML]. Global Education Cooperation Mechanism. https://sdg4education2030.org/the-goal

Veidemane, A. (2022). Education for sustainable development in higher education rankings: Challenges and opportunities for developing internationally comparable indicators. *Sustainability*, *14*(9), Article 9. https://doi.org/10.3390/su14095102

Waghid, Y. (2011). *Conceptions of islamic education: Pedagogical framings*. Peter Lang Group AG.

Wang, Y., & Remchukova, E. N. (2021). Development of the advertising specialty in higher education in Russia and China. *RUDN Journal of Psychology and Pedagogics*, *18*(3), 532–554. https://doi.org/10.22363/2313-1683-2021-18-3-532-554

Webb, A., & Rodriguez, L. (2022). Sustainable development goals and universities: Higher education engagement through the global master's in development practice programme. In M. Öztürk (Ed.), *Engagement with sustainable development in higher education: Universities as transformative spaces for sustainable futures* (pp. 1–18). Springer International Publishing. https://doi.org/10.1007/978-3-031-07191-1_1

Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, *2*(2), 99–106. https://doi.org/10.1016/j.geosus.2021.05.001