

Waqf on Health: A Bibliometric Review using R

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This study aims to determine the development and map of research trends with the theme waqf on health published by well-known journals. The data used in this study were 42 indexed research publications with the theme waqf on health in the period 1994-2020. The map of research development in the field of waqf on health is obtained through the export process which will be processed and analyzed using the R Biblioshiny application program. The results showed that the number of waqf on health research publications experienced a development trend with a stagnant increase. Besides, the results show that the journal with the most publication and impact is the Journal of Islamic Accounting and Business Research. The country that contributes the most to waqf on health research is Malaysia. The results of this study also indicate that the most widely used topic keywords are Waqf, Islamic, Case, and Malaysia.

Keywords: Waqf, Health, SDG3, Bibliometrics, R

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INTRODUCTION

Waqf has an important role for Muslims where waqf can build religiosity and social relations. There are two paradigms in waqf management, namely the ideological paradigm and the socio-economic paradigm (Zuki, 2012). The ideological paradigm is all actions that lead to religious compliance while the socio-economic paradigm is something that contributes to solving economic problems that exist in society. Therefore, for Muslims, waqf is not only a means to get a reward but also a way to help the problem of economic inequality in society.

In general, the community only allocates waqf only for the construction of mosques, land for funerals or school buildings. In fact, the potential for the use of waqf is more than that which includes in the fields of education, financing the real economy sector, and health. One thing that must be prioritized is waqf in the health sector. Health care is very important where health quality is an indicator in the Human Development Index (Handayani & Kamilah, 2019). This means that good or bad health levels will affect people's living standards. The role of waqf in the health sector can be through the construction of hospitals, purchasing equipment and health facilities that are beneficial to the sick and weak (Ahmad, 2015). Currently, the cost of treatment is a serious concern because of the high cost of treatment. Given this, the health sector cannot only depend on assistance or subsidies from the government where waqf practices can be useful to ease the burden of medical expenses.

The cost of health care costs a lot of money, if households with severe and emergency medical needs will spend a large part of their household budget on health care (Ismail et al., 2019). Meanwhile, in developing countries where the majority of the population is still in the lower middle line, the problem of access to health must receive special attention. People who have low incomes will have the opportunity not to have access to health care so that it will have a negative impact on their standard of living (Zakaria et al., 2019). In addition, in developing countries the available public health facilities are still inadequate due to the limited budget for health funds. Whereas based on state priorities as stated in the Sustainable Development Goals (SDGs) goal 3, every community at all ages should be eligible to get a healthy life guarantee and improve their health welfare. Therefore, health problems, especially in developing countries, which mainly have a large Muslim population, can have the opportunity to develop the use of waqf to be a solution for the welfare of the health of the people/community.

The role of waqf in the health sector has been studied in several previous studies and has developed over the last two decades. Therefore, this study aims to find out the map of the development of research related to waqf on education starting from 1994-2020 using bibliometric analysis. The discussion that is studied in

the bibliometric analysis in this study is related to the types of publication documents, document citation rates, tree fields plots, source analysis, authors analysis, documents analysis, conceptual structures analysis, and social structures analysis.

LITERATURE REVIEW

Waqf is one of Islamic philanthropy in addition to zakat, alms, infaq, grants, and others. From a sharia point of view, waqf is categorized as shadaqah jariyah which has sustainable or lasting characteristics. Therefore, waqf can be defined as a form of act of holding an asset or preventing the use of an asset which can result in the asset being exhausted so that the asset/asset can be used continuously for the benefit of the people. The law in issuing waqf for a person or group itself is a sunnah which means that if it is done, it will get a reward by Allah. Another characteristic of waqf is that the recipient of the waqf cannot sell or give the waqf to others where, if an asset has been donated as a waqf, it remains forever as a waqf by the recipient of the waqf (Zuki, 2012).

In addition, waqf can also be defined from an economic point of view as an action that involves investing funds or other assets in creative properties that will provide income or beneficial results for future generations (Ahmad, 2015). Waqf which is part of the voluntary donation sector can provide certain welfare improvement services to the community which are financed through the investment of well-allocated resources. The waqf sector can also be one of the best instruments in redistributing wealth between the rich and the less well off and managing it to reduce socio-economic disparities. Therefore, the collection and management of waqf that are managed properly will make the economy stronger which moves the community towards growth and prosperity both economically and socially (Zuki, 2012). The community or Muslims strongly support waqf because of its lasting or sustainable benefits that contribute to developing various social and economic aspects, including the health sector.

Waqf assets can be divided into immovable assets such as land, buildings, and others as well as movable assets such as money. The first waqf practice in Islamic history occurred during the time of the Prophet Muhammad in 1 Hijrah or around 622 AD through the construction of the Quba Mosque. At that time the Muslim community was only familiar with land waqf, which meant that the term cash waqf did not yet exist. It was only at the beginning of the second century Hijriyah that the practice of cash waqf was carried out by one of the leading clerics named Imam Az Zuhri where he recommended waqf in the form of dinars and dirhams for the construction of da'wah, social and educational facilities for Muslims. In the health sector, waqf played a role in the construction of hospitals, namely the Al Nuri Hospital in Damascus in 1145 and the Shishli

Children's Hospital in Istanbul which was founded in 1898. Another waqf implementation that has occurred is the development of springs to provide water consumption for the public, build houses for the needy, build bridges, help the poor and the disabled, finance the marriages of young people in need, and finance orphanages and nursing homes.

METHODOLOGY

Bibliometric mapping is a research topic in the field of bibliometrics (Borner et al., 2003). Two distinct aspects of bibliometrics are the construction of bibliometric maps and the graphical representation of the maps. In the bibliometric literature, the greatest concern is with the construction of bibliometric maps.

Research related the effect of differences on similarity measures (Ahlgren et al., 2003), and they were tested with different mapping techniques (Boyack et al., 2005).

The graphical representation of bibliometrics has received less attention. Although there are some researchers seriously study problems related to graphical representation (Chen, 2003). Most articles published in the bibliometric literature rely on simple graphical representations provided by computer programs. This study uses published data in the form of papers sourced from various scientific journals and other sources with the theme of waqf research in the health sector. From the search results obtained 42 articles published.

ANALYSIS AND DISCUSSION

Table 1. Document Types

No	Document Types	Number of Articles
1	Journal article	32
2	Book chapter	5
3	Conference paper	2
4	Review	3
	TOTAL	42

The table above shows the number of document collections studied under the theme of waqf on health, namely a total of 42 data consisting of 4 different types of documents, with the following explanations: (1) types of published journal articles are 32 documents, (2) types of interest a book chapter of 5 documents, (3) types of proceeding articles (conference paper) of 2 documents, and (4) review articles of 3 documents.

Based on the table above, it can be concluded that the most widely used documents as objects of study in research that discusses waqf on health in the first rank are journal articles with a percentage of 76.2% or 32 documents. While the least used documents are articles of proceedings which have a percentage of 4.8% or 2 documents. This data shows that the references used are quite valid because they come from written documents of a scientific nature and even most are dominated by published papers.

Table 2. Total Citations

Year	N	Mean TC per Article	Mean TC per Year	Citable Years
1994	1	0.00	0.00	27
1995	1	41.00	1.58	26
2005	1	25.00	1.56	16
2008	1	1.00	0.08	13
2009	1	4.00	0.33	12
2010	2	6.50	0.59	11
2011	1	1.00	0.10	10
2013	2	20.00	2.50	8
2014	3	4.00	0.57	7
2015	3	4.33	0.72	6
2017	7	0.14	0.04	4
2018	7	1.14	0.38	3
2019	6	0.67	0.33	2
2020	6	0.00	0.00	1
Total	42			

Table 2 shows the number of citations both from the average per article and per year in a paper with the theme of waqf on health. This study examines documents on this theme that were published in a span of 27 years or from 1994 to 2020. Based on this table, it can be seen that the most publications of waqf on health themes were published in 2017 and 2018 with 7 each document.

Furthermore, it can be seen that the average total citation for each article was the highest in 1995 with an

average of 41 citations. Interestingly, in the same year there was the second highest average total citations per year with a value of 1.58 which only differed slightly from the highest total citations per year which was in 2013 with a value of 2.50. These results indicate that the paper published in 1995 was the paper that was most cited or quoted on the theme of waqf on health, when compared to the previous year and the following years, which experienced relatively lower fluctuations in general.

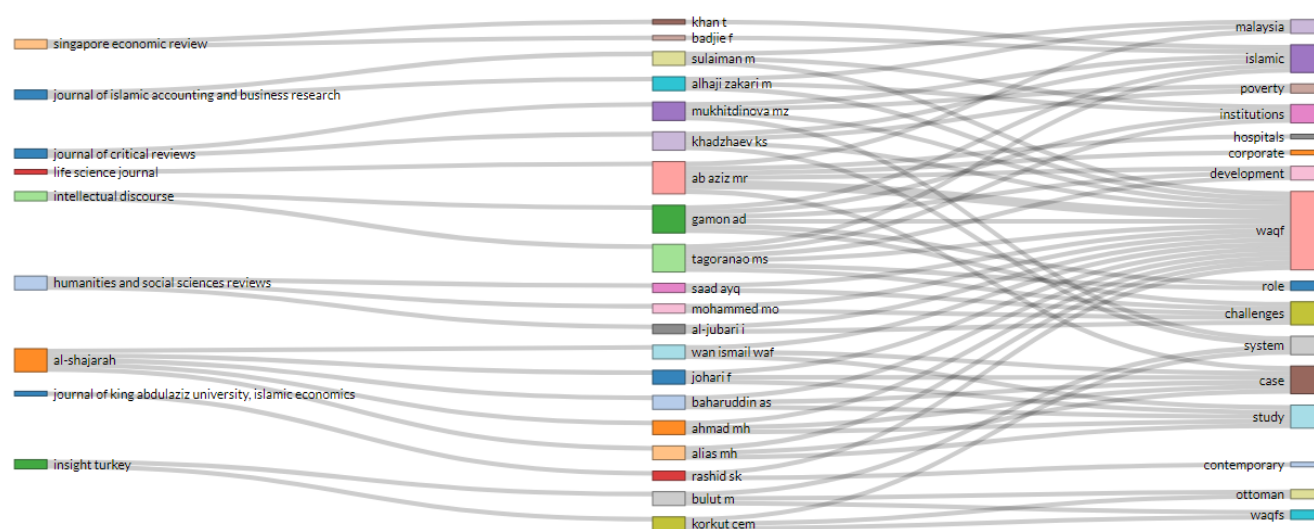


Figure 1. Three Fields Plot

Figure 1 above illustrates 3 elements consisting of the name of the published journal, a list of authors' names and a list of topics studied. The three elements are connected by a gray plot that is related to one another. Starting from the name of the journal, then each journal indicates an author who often contributes to publications, then each author indicates a topic that is often studied in waqf on health research. The size of each rectangle indicates the quantity of publications associated with each of these elements.

From the picture above, it is known that in the first element, there are 10 journals indexed in the Three Fields Plot that publish waqf on health themed papers. The top journal that publishes the highest number of papers with the theme of waqf on health is Al-Shajarah. The journal is depicted with an orange rectangle which is then linked to several authors, namely Wan Ismail Waf, Johari F, Baharuddin AS, Ahmad MH, and Alias MH.

The next element in the middle of the image is the element that shows the name of the author or researcher. This element consists of several authors who are connected with previous journals. In addition, the author will also be associated with the topic of keywords that are often used on the right side of the image. The

results obtained that there were at least 20 top researchers listed in this plot. Then the rectangle size of each author indicates the quantity of research publications. As for this study, the author who publishes the most waqf on health themes is Ab Aziz MR which is depicted by a pink rectangle and is the largest in size compared to the others.

Finally, the third element and is located on the right describes the topic keywords that appear the most in the paper that is the object of research. Each topic is associated with an author who studies many related topics. Based on the results of the image there are 16 keyword topics listed. Of all these topics, the word Waqf is the keyword that appears most often, as indicated by the size of the pink rectangle that dominates the other rectangles. It also appears that the topic of waqf is used by almost all of the authors listed, this data is in accordance with the theme of this research, namely discussing scientific papers related to waqf on health. Besides waqf, this plot also shows some other widely used keywords, such as Islamic, Case, Challenges. Study, and System.

4.1. Sources Analysis

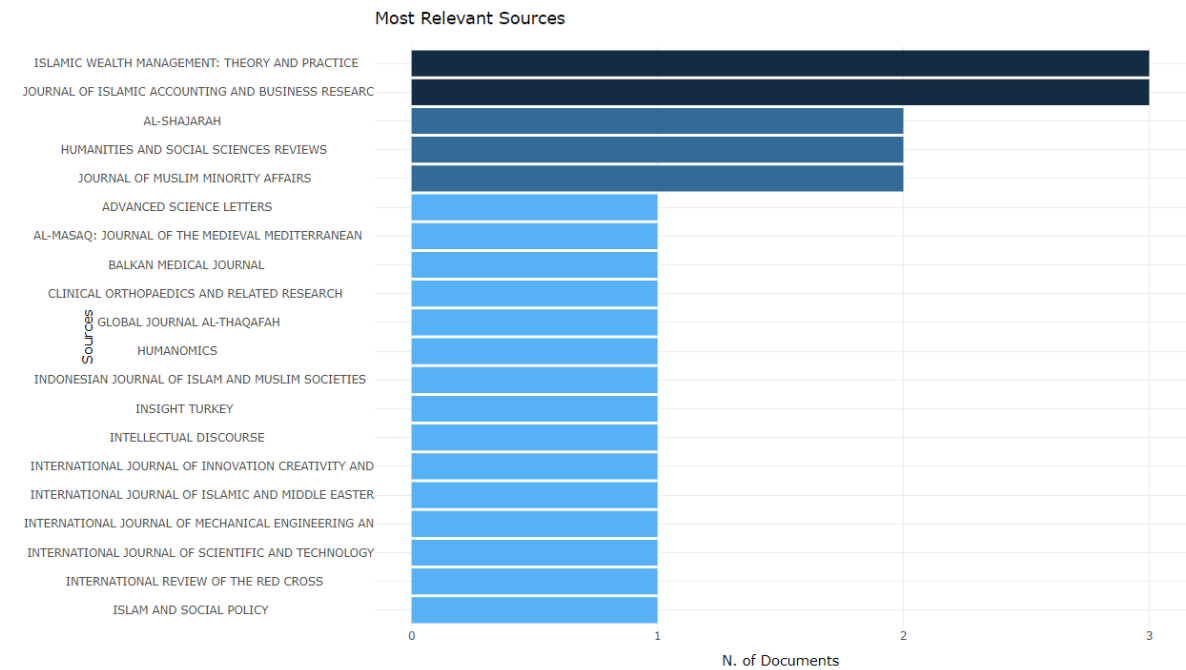


Figure 2. Most Relevant Sources

The picture above shows the number of paper documents published by each journal based on their level of relevance to the theme of this research, namely waqf on health. The data shows a list of the names of the top published journals and the interval of the number of documents published with a blue bar chart. The darker the blue color indicates the greater the quantity and relevance to the research theme, the number of documents published by all journals ranges from 0 to 3 documents.

There are two journals, namely Islamic Wealth Management, Theory, and Practice and the Journal of

Islamic Accounting and Business Research which are in the top position with the number of documents 3 as shown by the bar chart which is the darkest blue compared to other journal bars because it is more relevant to the theme discussed. As for the lowest journal position, there are 15 of the 20 journals listed in the most relevant sources. The least journals are depicted with bright blue bar charts and show the number 1, which means that there are not many published papers in quantity and less relevant to the research theme of waqf on health.

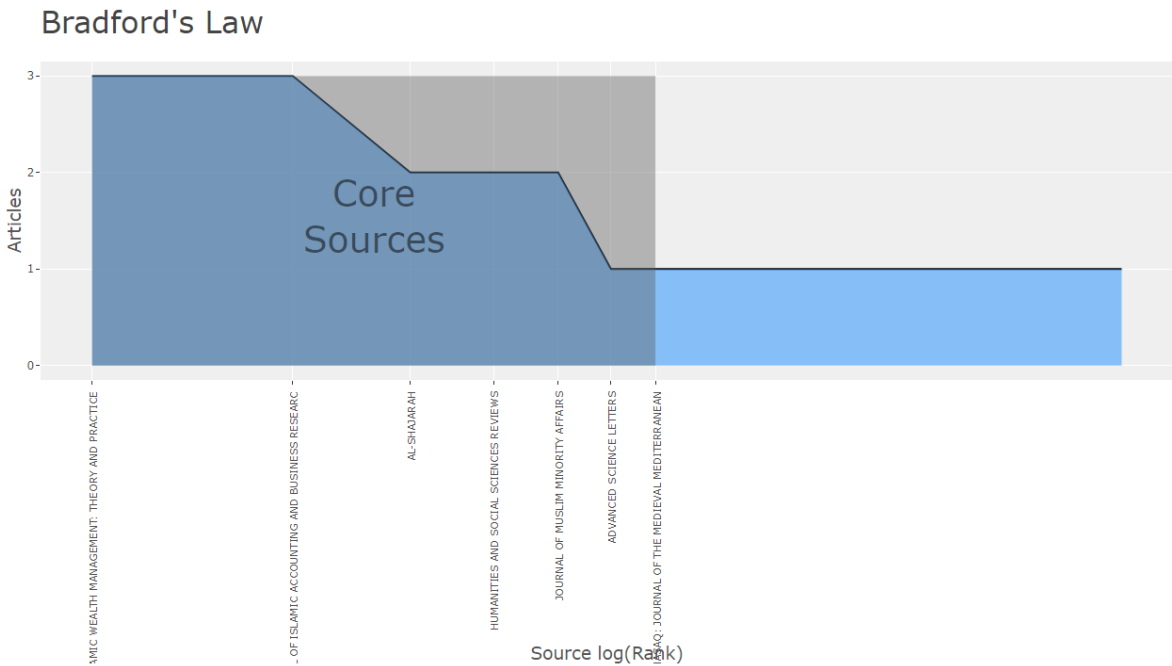


Figure 3. Bradford's Law

The next discussion is the classification of journals based on Bradford's law. The classification of this journal is based on the level of productivity which is divided into several sections, including the core journal group, the intermediate journal group and the broad journal group. Core journal groups are indicated by shaded sections and annotated core sources. Journals that fall into this category are journals with the highest productivity level in the subject of waqf on health during the specified period of time.

The top journals are Islamic Wealth Management, Theory, and Practice and the Journal of Islamic

Accounting and Business Research with the highest quantity, which has published 3 paper documents related to the research theme. Furthermore, in the core journal category in waqf on health research, there are 5 other journals of which 3 journals have 2 documents published and the remaining journals publish 1 document. The journals include Al-Shajarah, Humanities and Social Sciences Reviews, Journal of Muslim Minority Affairs, and Advanced Science Letters, and Al-Masaq: Journal of Medieval Mediterranean.

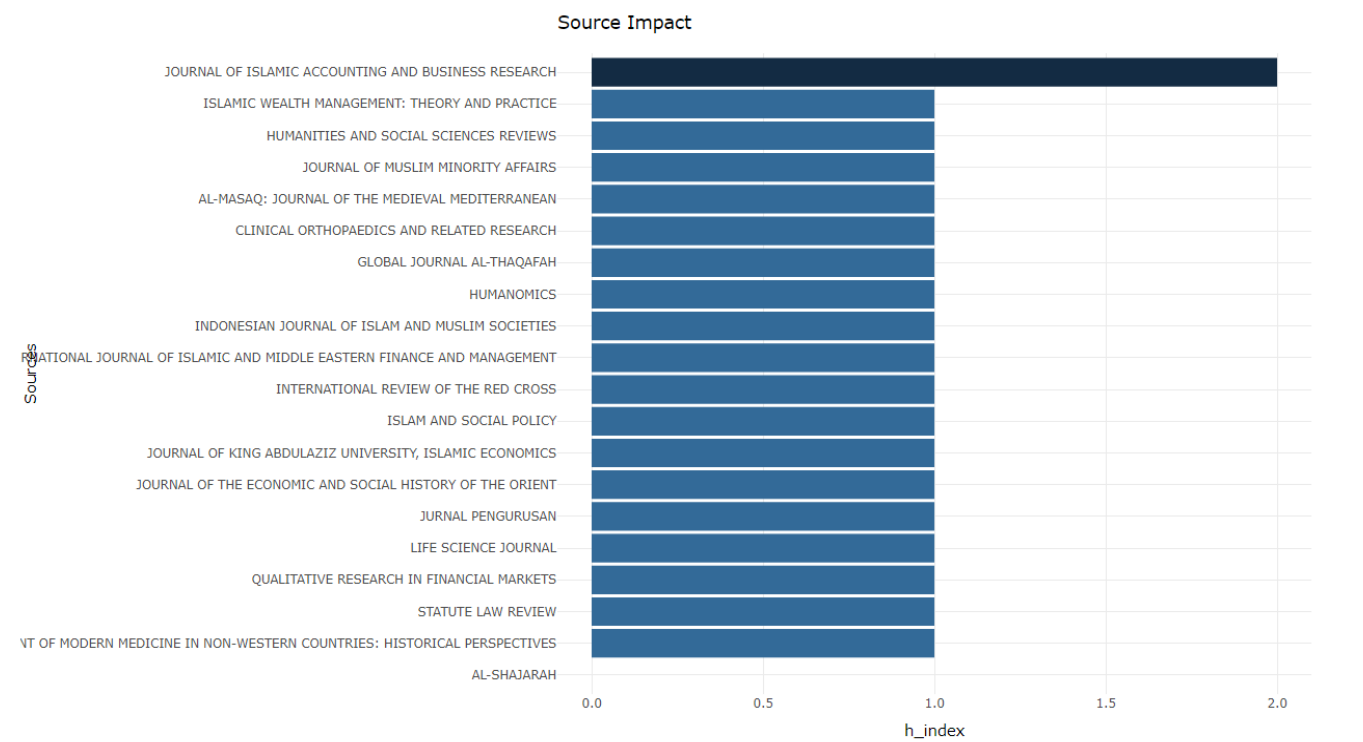


Figure 4. Source Impact

Then, the picture above shows the top journal publications based on the level of impact of each journal that publishes waqf on health themed papers. This calculation is done by calculating the h-index of the journal which is then depicted in a blue bar chart. In addition to showing the h-index value of each journal, this diagram also shows the impact of each journal through the blue color displayed, the darker the blue color in the diagram, the greater the impact of the journal. Then the journal h-index interval in this study ranged from 0 to 2.

Based on the data obtained, it shows that the Journal of Islamic Accounting and Business Research is

the journal that is in the top position with an h-index value of 3. There are also several well-known journals such as Global Journal al-Thaqafah (GJAT) Malaysia, Humanomics Emerald, IJIMS Indonesia, IMEFM, Journal of King Abdulaziz University (JKAU-IE), JESHO, Jurnal Pengurusan UKM Malaysia, QRFM Emerald, and also Al-Shajarah. The bar chart of the journal is the darkest blue which indicates that this journal has the biggest impact compared to other journals. The journals with the lowest h-index, with a value of 1, belonged to 19 journals marked with the brightest blue color reflecting the low level of impact.

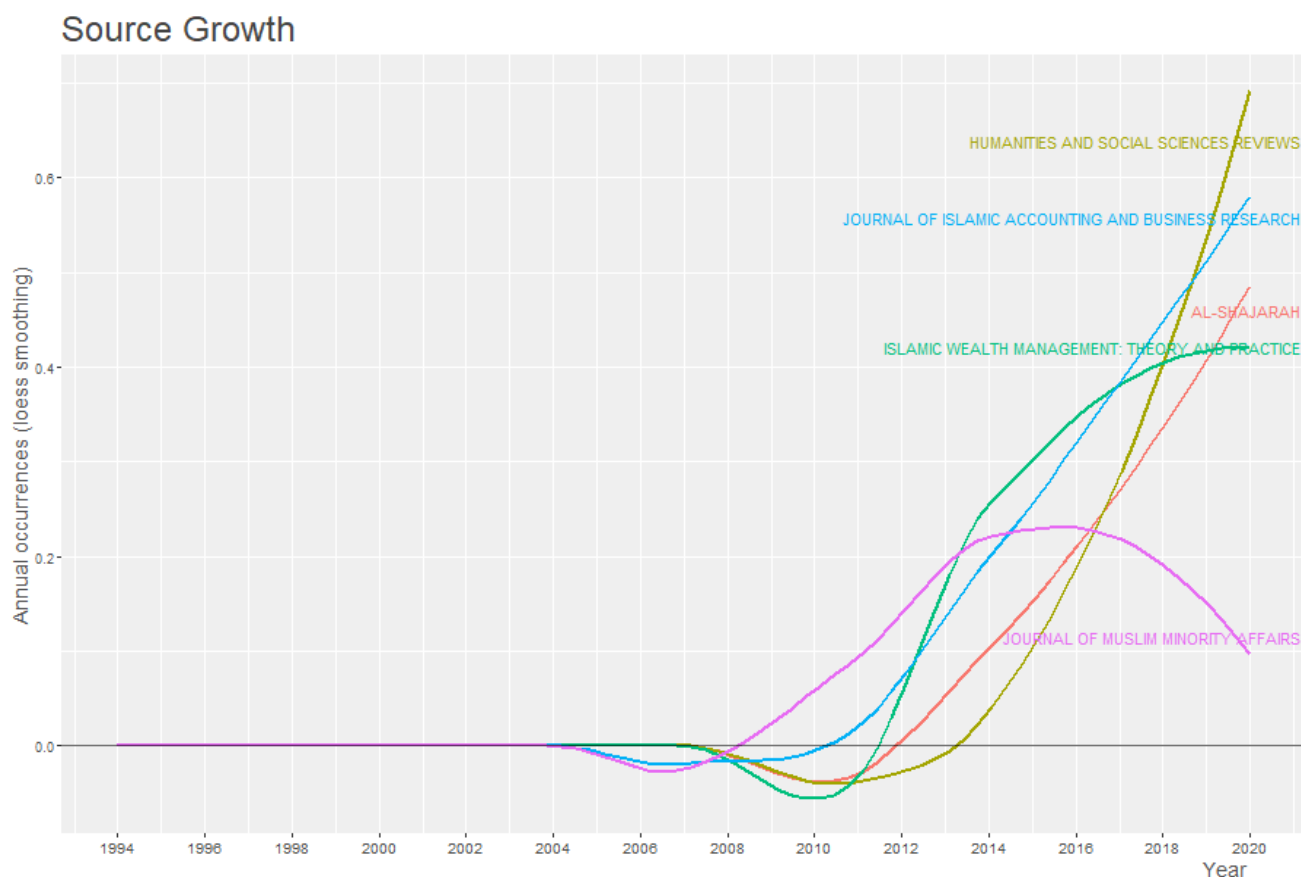


Figure 5. Source Growth

This study also discusses the development of journals as sources of research documents with the theme waqf on health. The data above shows the development of the annual occurrence of each journal from 1994 to 2020, so we get an idea of whether the journal has increased or decreased with a curve line during the research period, especially in the publication of waqf on health themed papers.

Figure 5 above shows several journals that have started to develop since 2004 and continue to increase even though in the following years there are journals that have experienced a decline. The Journal of Muslim Minority Affairs published by Taylor and Francis (TANDE), which is indicated by the purple line, has increased to a peak with an annual occurrence value of 0.225 in 2016 but after that it fell drastically to the lowest

position at point 1 in 2020. The journals that continued to show a significant increase were up to the end of the research period with an annual occurrence value of more than 0.6, namely the Journal of Humanities and Social Sciences Reviews which is indicated by a moss green line.

In addition, several other journals also experienced an increase, although not as significant as the previous journals, namely the Journal of Islamic Accounting and Business Research published by Emerald, Al-Shajarah published by International Islamic University of Malaysia (IIUM), and Islamic Wealth Management Theory and Practice (a book chapter published by Edward Elgar Publishing from United Kingdom).

4.2. Authors Analysis

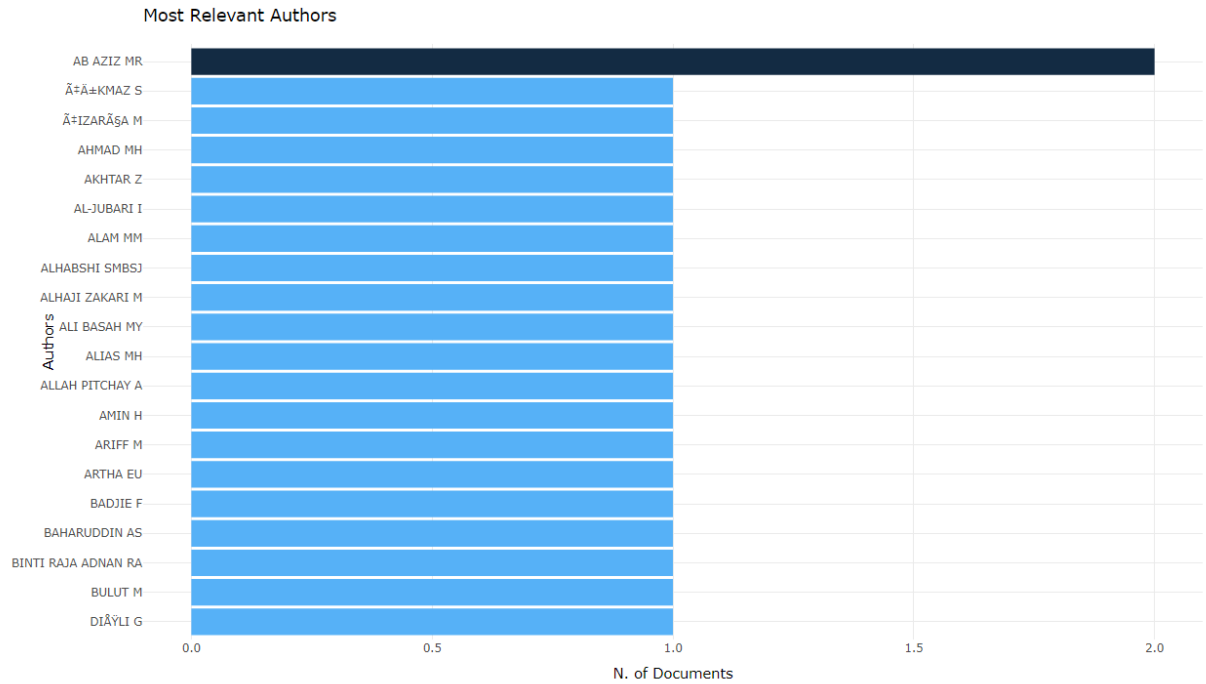


Figure 6. Most Relevant Authors

The picture above shows a list of authors with the number of paper documents published based on their level of relevance to the research theme of waqf on health. The data shows a list of the names of the top published authors and the interval of the number of documents published with a blue bar chart. The darker the blue color shows the more quantity and relevance to the research theme, the number of documents published by all authors ranges from 0 to 2 documents.

In Figure 6 there are 20 lists of the top authors including Ab Aziz MR in the top position with the number of published documents as much as 2. As shown by the dark blue bar chart, darker than the bars of other journals because it is more relevant to the theme discussed. The other 19 authors are in the lowest position with a bright blue bar chart, each of which publishes 1, which means that there are not many published papers in quantity and less relevant to the research theme of waqf on health.

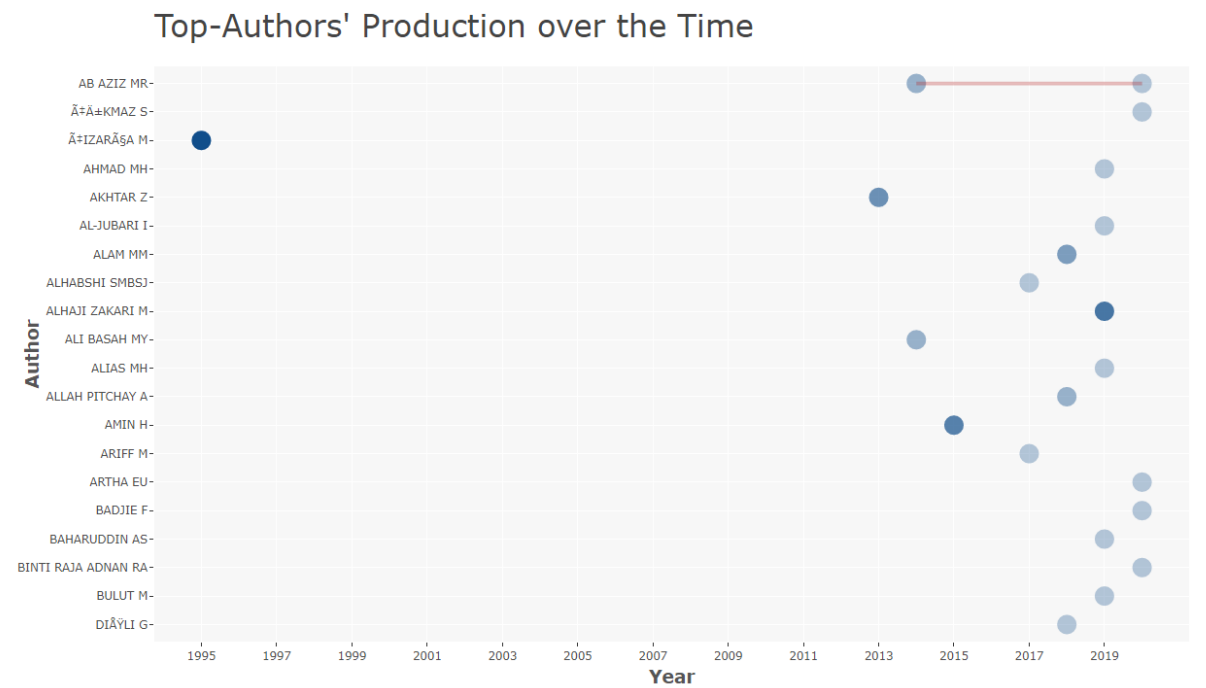


Figure 7. Top-Authors' Production over the Time

Productivity can not only be measured in journals, but also in writers in particular. The figure above shows the production of some of the top authors during the research period, which is from 1995 to 2020. The red line shows the period from the first year the author published until the last year the author was recorded to publish his paper. In addition, the circle in the red line shows the number of papers published in accordance with the applicable year.

This study produces data as shown in Figure 7, where there are writers who have started writing waqf

on health themed papers for a long time and some have not written for a long time. The author, who has been writing based on data for a long time, is Cizarca M, who was recorded as writing in 1995 with the largest quantity of documentation indicated by the darkest blue circle, but after that the author has not published a paper with the theme of waqf on health again. Then the author who has the longest track record of publications is Ab Aziz MR who has written since 2014-2020. In addition, the other authors do not have a long track record of writing or only write at a time which is indicated by no red line in the other 19 authors.

The Frequency Distribution of Scientific Productivity

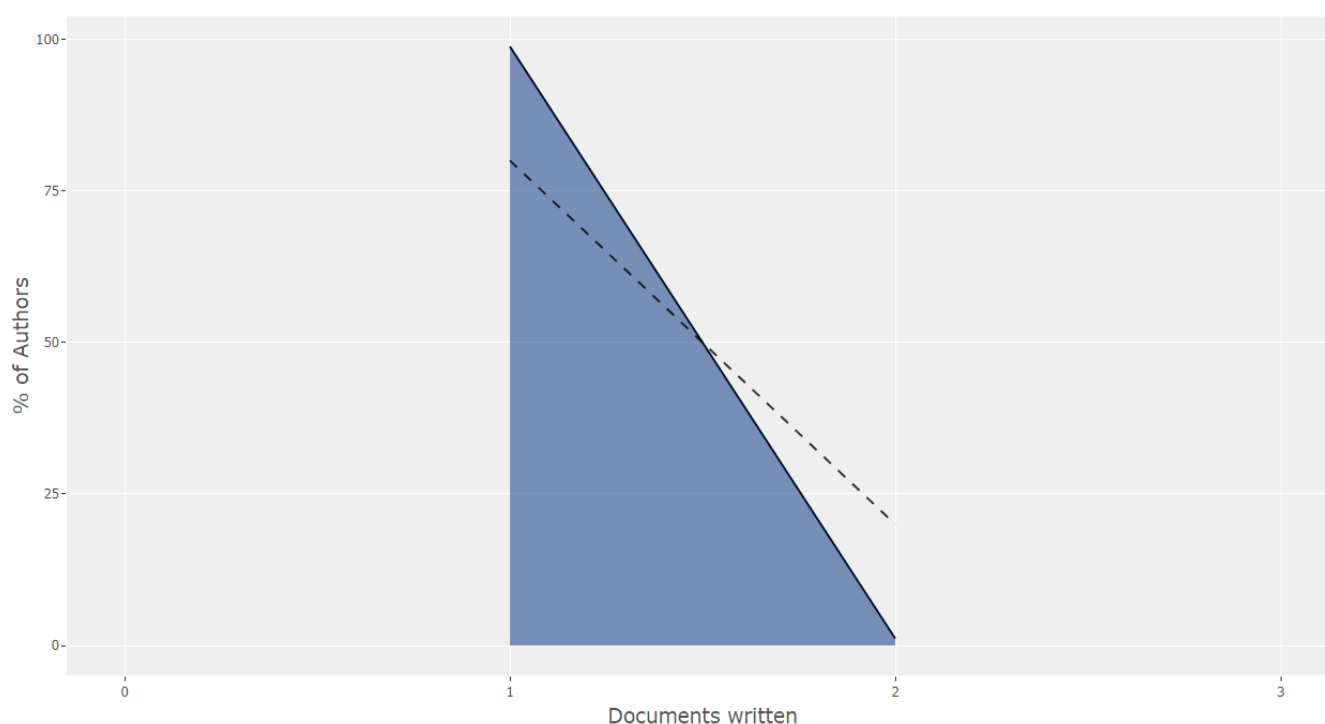


Figure 8. The Frequency Distribution of Scientific Productivity

Furthermore, in this study, a discussion was carried out on the distribution of the frequency of publication productivity based on the distribution map of The Lotka's Law. In Figure 8 the vertical axis shows the proportion of authors from various publications to the total of all existing authors and the horizontal axis shows the number of published documents. The dotted line in the figure is a general description of lotka's law. Based on the picture above, it shows that there are almost 100% of the total authors or almost all authors

who publish 1 publication document with the theme of waqf on health, while the percentage of the remaining authors publish 2 documents. In addition, it can be seen that the authors of the waqf on health research field and the number of documents are almost the same as the dotted line which is basically in accordance with lotka's law. This can indicate that the number of authors who only wrote one paper in the field of waqf on health is relatively large. Then the majority of writers in this field have just entered and the research conducted has not been in-depth.

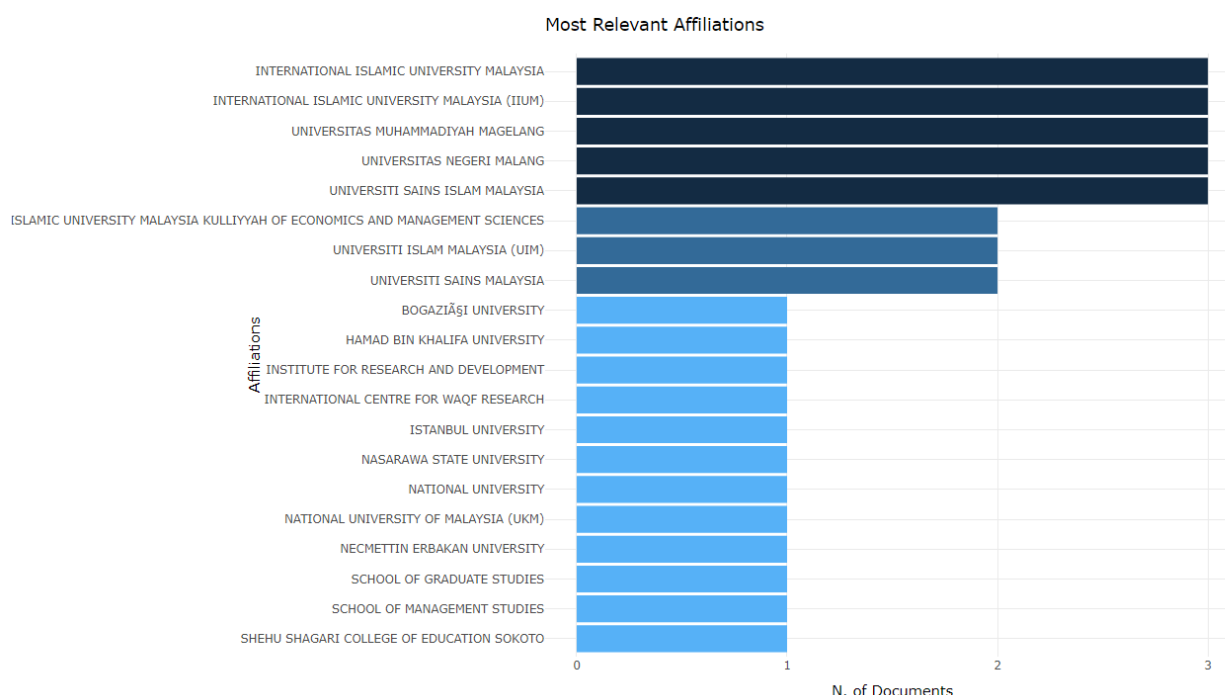


Figure 9. Most Relevant Affiliations

The picture above shows the number of paper documents issued by each tertiary education affiliation based on their level of relevance to the theme of this research, namely waqf on health. The data obtained shows the list of names of the top affiliates who published and the interval of the number of documents published through the blue bar chart. The blue gradation indicates that the darker blue indicates the more quantity and relevance to the research theme. In Figure 9 there are the top 20 college education affiliations and the interval of the number of documents published by each affiliate ranges from 0 to 3 documents.

The affiliations of higher education that took the first position were achieved by 4 institutions, namely

where the International Islamic University Malaysia (IIUM) was recorded 2 times, then the Muhammadiyah University of Magelang, the State University of Malang, and the Malaysian Islamic Science University. The four affiliates have 3 publication documents as shown by the dark blue bar chart, darker than the bars of other journals because it is more relevant to the waqf on health theme. The lowest affiliation is occupied by 12 institutions. Where each lowest institution has 1 document and is depicted with the brightest blue diagram. This means that there are not many published papers in quantity and less relevant to the research theme of waqf on health.

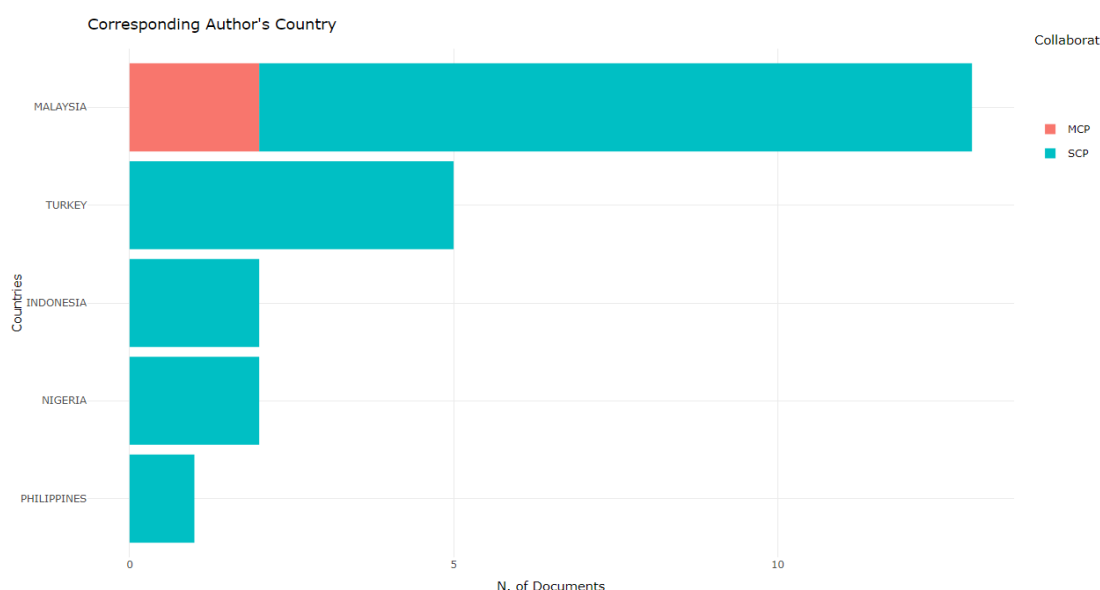


Figure 10. Corresponding Author's Country

The picture above shows the author's correspondence countries contained in each article by calculating the form of collaboration entirely SCP (single country collaboration) or collaboration of one country and MCP (multiple country collaboration) or collaboration between several countries. There are 5 top countries included in this data and the interval of the quantity of documents is between 0 and more than 10 published paper documents with the theme of waqf on health.

Based on Figure 10, the results show that almost all countries have a form of SCP collaboration, while for MCP it is only owned by one country, namely Malaysia. In addition, the country with the highest quantity of author correspondence is Malaysia with a total of more than 10 publication documents, 2 of which are MCP documents. Furthermore, the second rank is occupied by Turkey with the number of published papers as many as 5 and the third rank is Indonesia and Nigeria with 3 published documents. The last ranking is the Philippines with the publication of 1 document.

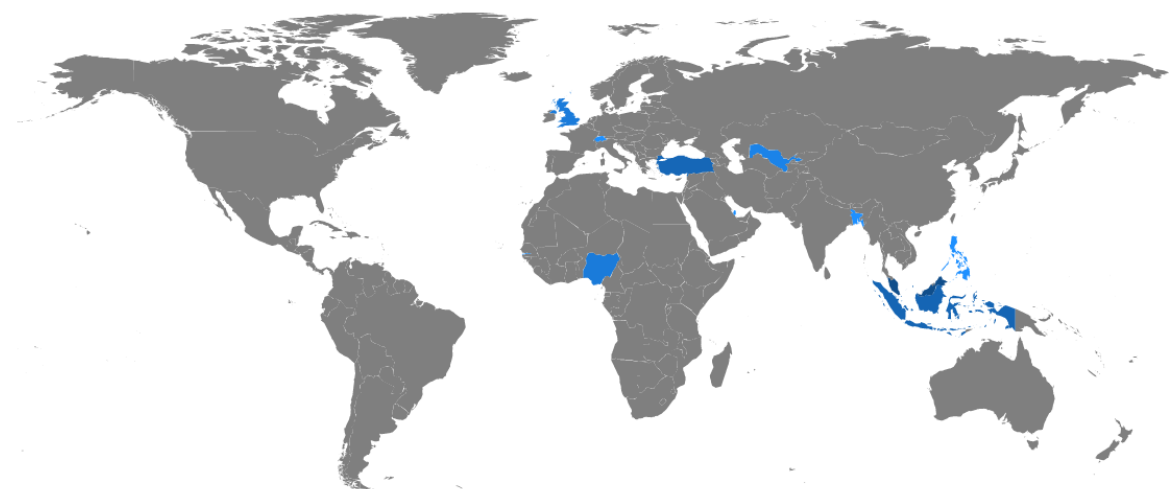


Figure 11. Country Scientific Production

The next discussion regarding the countries with the highest publication productivity is shown in Figure 11. The world map shown in the figure has various color gradations that reflect the level of productivity where the darker blue color means that it has high productivity, while the gray color means that it does not have published documents. This study shows the results that

Malaysia has the highest productivity in the field of waqf on health which is indicated by the country's territory having the darkest blue color compared to other countries. In addition, countries that have high productivity are Turkey and Indonesia. Then some countries that have other blue shading are, United Kingdom (United Kingdom), Nigeria, Bangladesh, Philippines, Uzbekistan, and Switzerland.

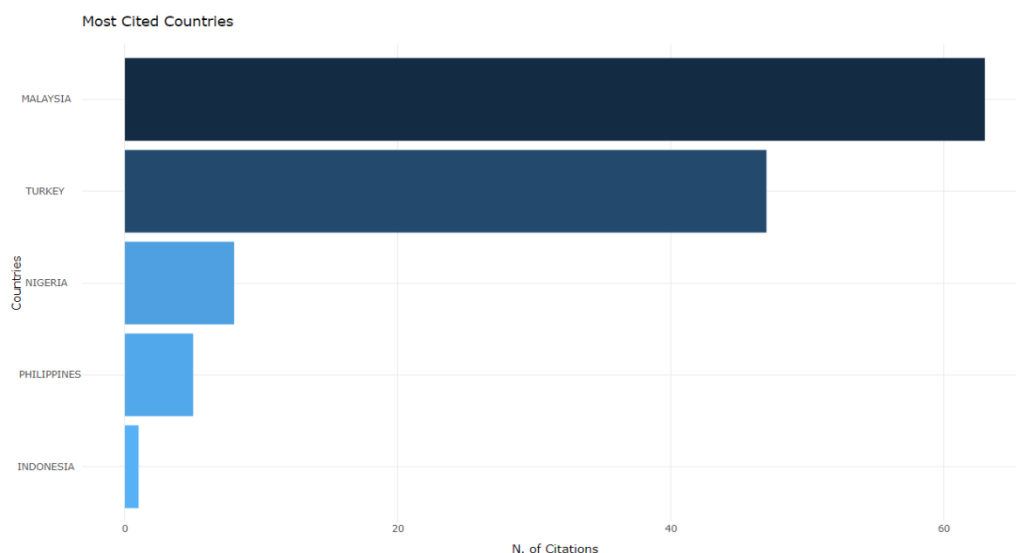


Figure 12. Most Cited Countries

Figure 12 above shows a list of the top countries and the number of citations to paper documents by each country in the research theme of waqf on health. The number of published document citations is shown through a blue bar chart. The blue gradation indicates that the darker blue indicates the greater the quantity of citations in the waqf on health research. In the picture above, there are the top 5 countries at least and the interval for the number of citations to published documents by each country ranges from 0 to more than 60 citations.

The country that occupies the first position is Malaysia. Where the research publication document waqf on health in Malaysia has been cited more than 60 times, as shown by the bar chart in the darkest blue. The next country that has the most citations of documents is Turkey, which has almost 50 citations. The next ranking is occupied by Nigeria, the Philippines, and Indonesia which have less than 10 citations.

4.3. Documents Analysis

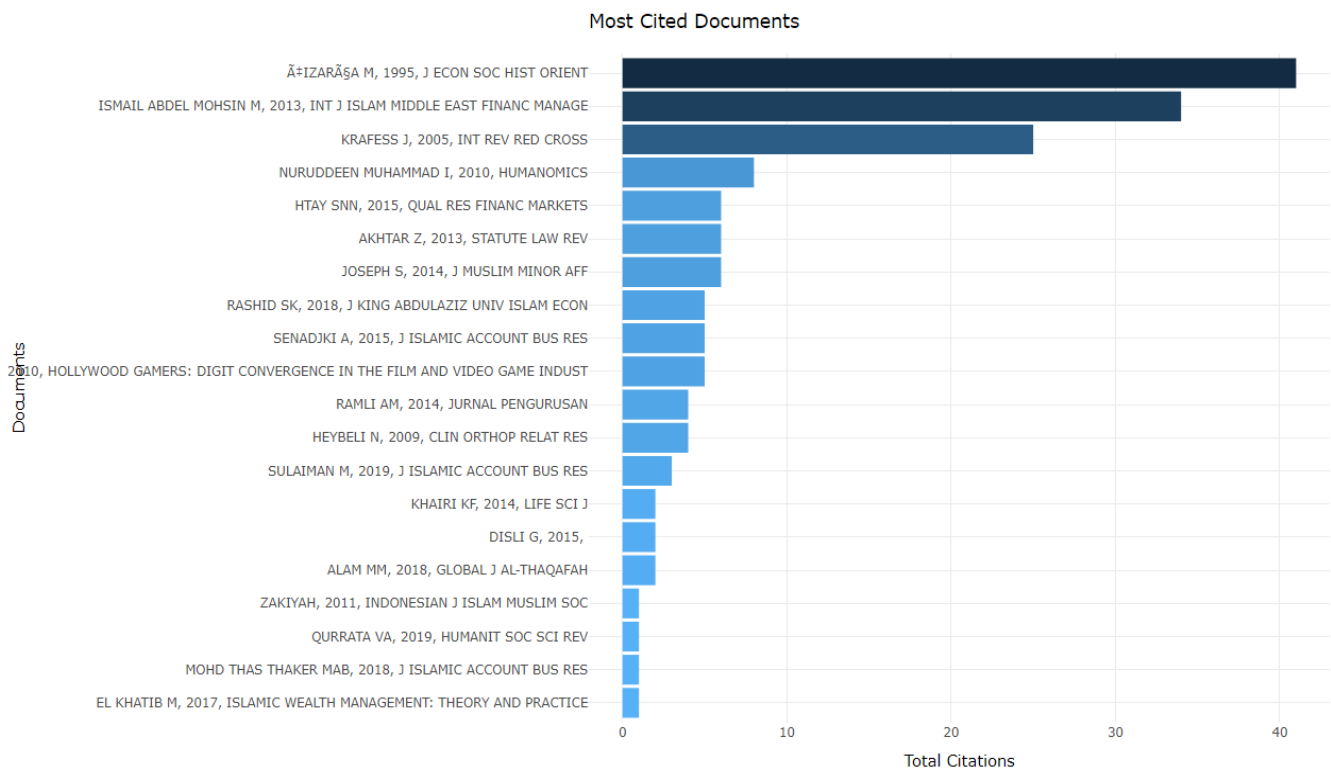


Figure 13. Most Cited Documents

This study also examines the list of top documents based on the number of documents cited. In Figure 14 above, there are 20 lists of documents consisting of names of authors and journals with citation quantities ranging from 0 to more than 40 citations. The blue bar chart shows the quantity of citations and the higher the number of citations, the darker the blue color will be.

The top published document with the highest number of citations in this research theme was written

in 1995 by Cizarca M in the Journal of the Economics Social History of the Orient. The document is shown as a bar chart in the darkest blue and has been cited more than 40 times. Documents that are in the lowest position are occupied by 4 documents, each of which has been cited at least 1 time and has the brightest blue chart because most of these documents include the latest publications which were published in 2017-2019 while the remaining 1 document includes old journals published in 2017-2019. 2011.

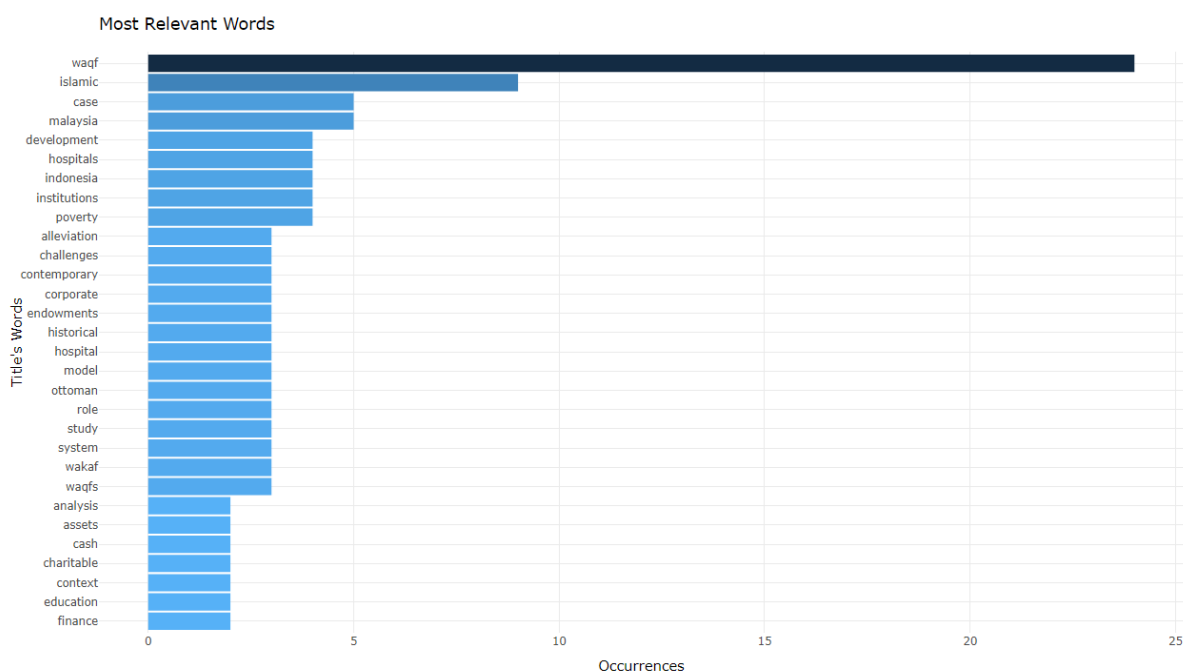


Figure 14. Most Relevant Words

This study also counts the relevant words used in the collection of documents that are the object of research. In the picture above, there are several words with a number of occurrences between 0 and almost 25 occurrences and the top 30 words are listed. The blue bar chart shows the comparison of the number of occurrences of each word usage and its relevance to the waqf on health theme.

The top word with the highest number of occurrences and most relevant to the theme of this

research is 'waqf' with a total usage of almost 25 times and the most relevant as indicated by the darkest blue line diagram. The word waqf is also very in line with the research theme of waqf on health. Therefore, the dominant word that appears in the data collection under study is the word waqf. Furthermore, in the second and third place, the word Islamic appears almost 10 times, then Case and Malaysia with the number of occurrences as much as 5 times.



Figure 15. Word Cloud

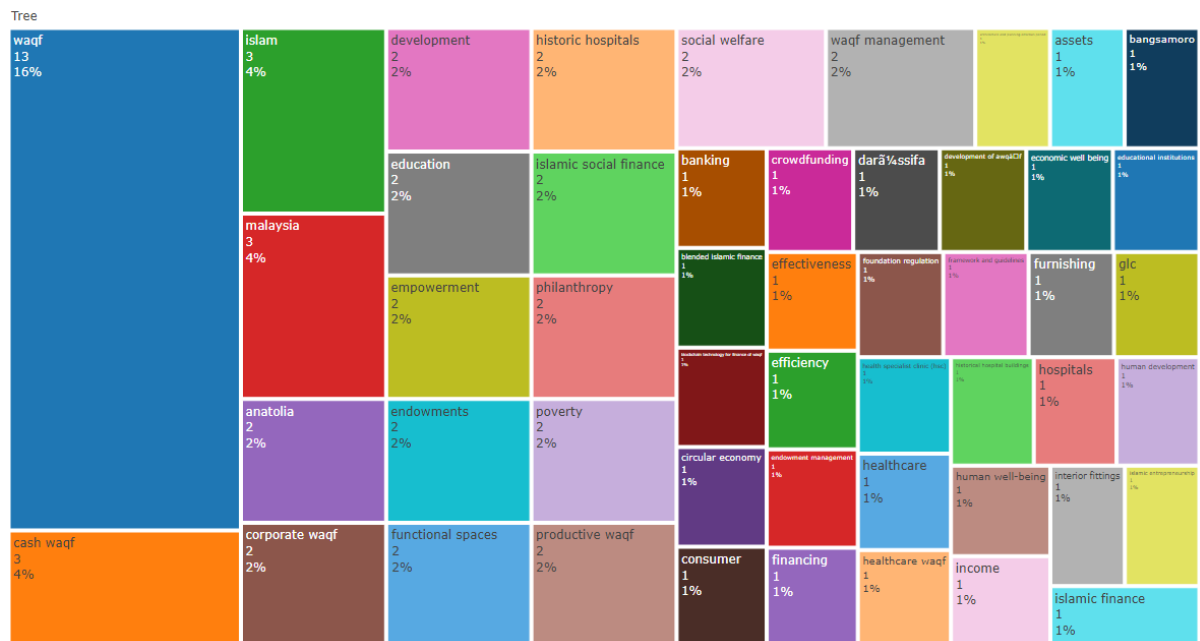


Figure 16. Word Tree Map

The Word Cloud and Word Tree Map above reveal a description of the words that often appear in the collection of data papers studied under the theme of waqf on health in different forms. Word cloud displays an image of words with various sizes according to the quantity of the number of words that appear. In terms of placement, word clouds tend to be random but the words that dominate are placed in the middle so that

they are more visible with a large size. While the Word Tree Map displays words that often appear in boxes similar to regions or regions on a map, where the more words that appear, the larger the square area. Based on Figure 15, the words that often appear are Waqf, Islamic, Malaysian and Case. While in Figure 16 shows the words that often appear are Waqf, Cash Waqf, Islam, and Malaysia.

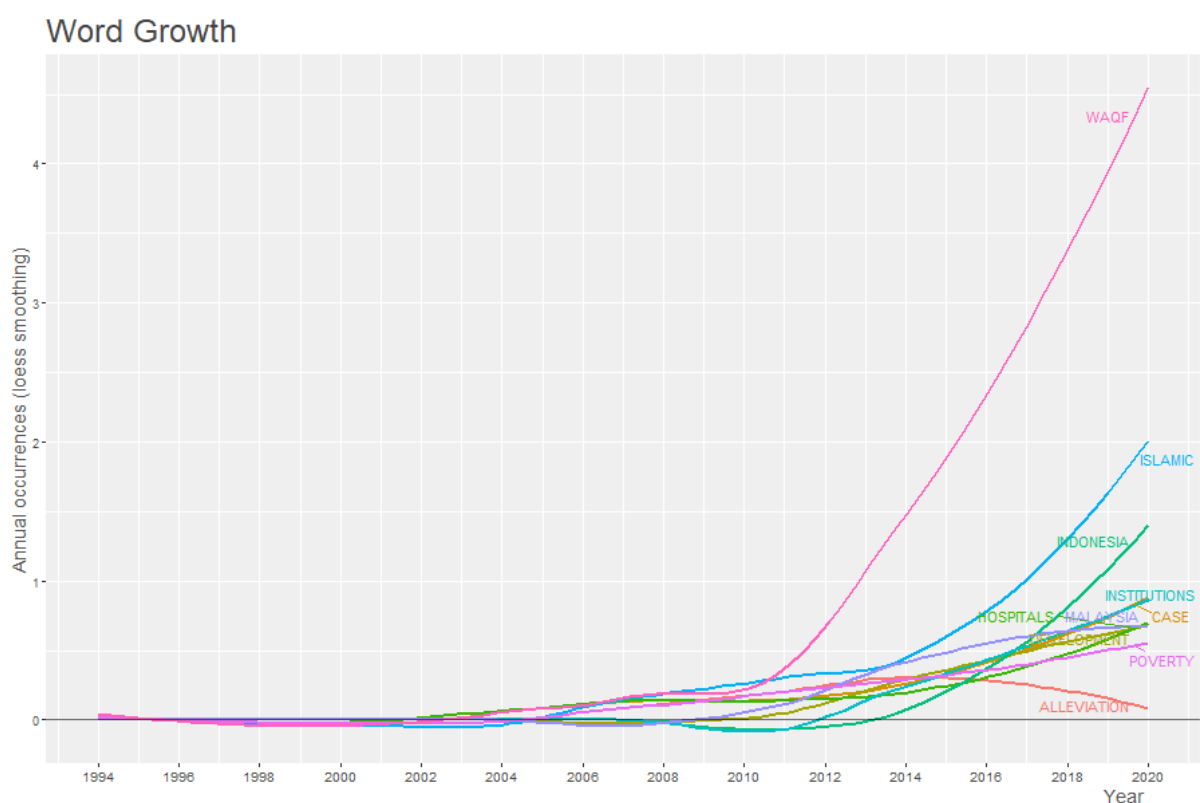


Figure 17. Word Growth

In this study, the words that often appear are also described in the form of a development curve each year with an annual occurrence value which shows the average value of the quantity of occurrences of these words in the data collection studied under the theme of waqf on health per year. Figure 17 above shows that the majority of words that appear frequently have been developed and used since 2002 and continue to increase every year.

The highest increase was achieved by the word 'waqf' with an annual occurrence value which increases

every year with a number large enough to produce a steep curve and in 2020 with a value of 5. Then the second place is the word 'Islamic' which until 2020 the annual occurrence value reaches number 2. And in the third to fifth place are the words 'Islamic', 'Indonesia', and Institutions which also continue to increase but are not as high as the previous two words. In addition, there is the keyword 'Alleviation' which has a stagnant increase and has decreased since 2015 until it almost reached 0 in 2020.

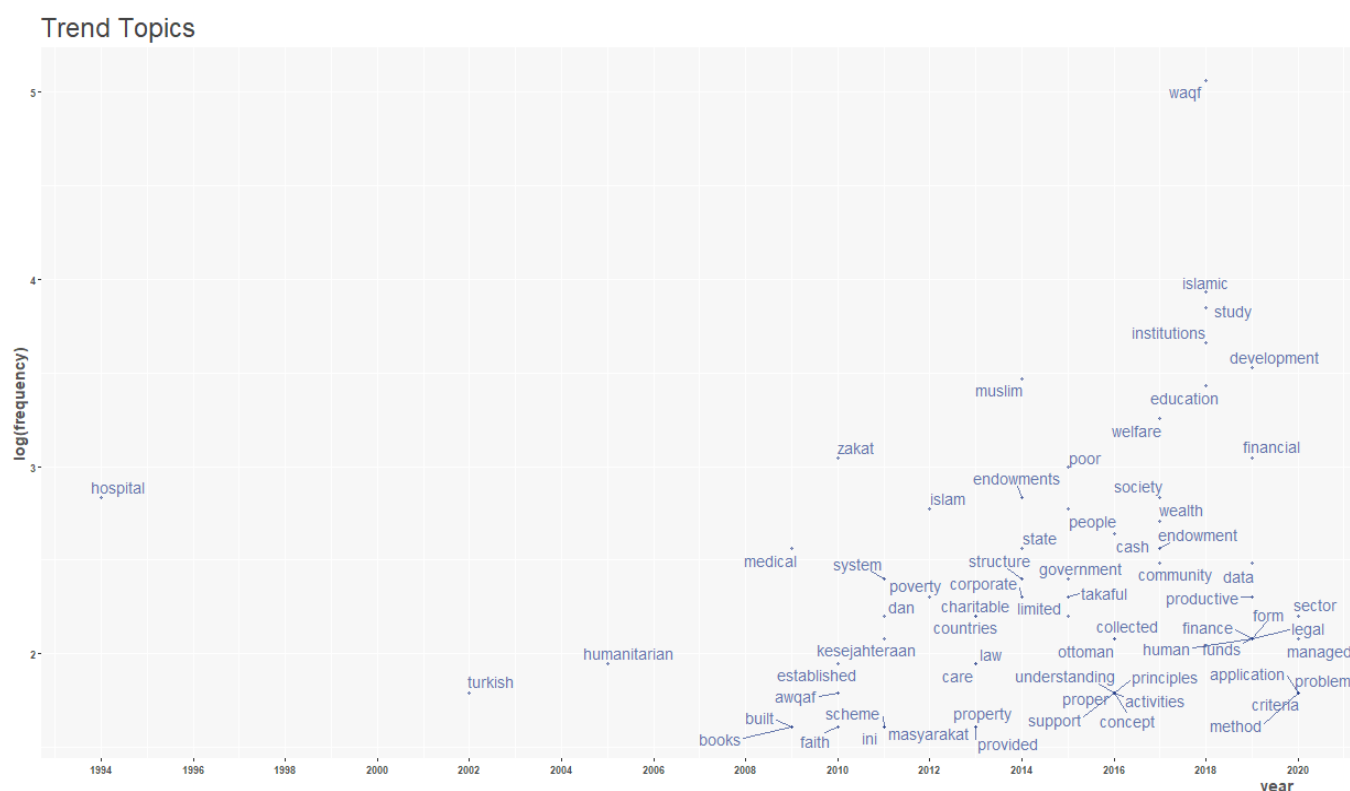


Figure 18. Trend Topics

Topic trends are also part of this research, where the picture above shows an overview of the development of the topic of waqf on health from time to time with the division per year, so that it is known what topics have been used for a long time and what topics have been used recently. The appearance of the topic is also adjusted to the frequency with which the word appears in this research on the theme of waqf on health. The higher indicates the more the word is used, and the further to the right, the more recently the word has been used. The development of the topic of waqf on health began to experience a significant increase since 2009.

Based on Figure 18, the topic that has been used since 1994 is 'hospital' or hospital. Even though it's been quite a while, the topic is still small in quantity. Furthermore, in 2009 several topics began to appear, namely 'books, built, and medical'. In addition, the topic with the highest quantity was obtained by waqf in 2018. The latest topics which are widely used in 2020 include 'Method, Criteria, Problem, Application, Managed, and Sector' with different quantities. The 'Method' topic is the least with being at the bottom and the 'sector' topic is the highest with being in the top position.

4.4. Conceptual Structures Analysis

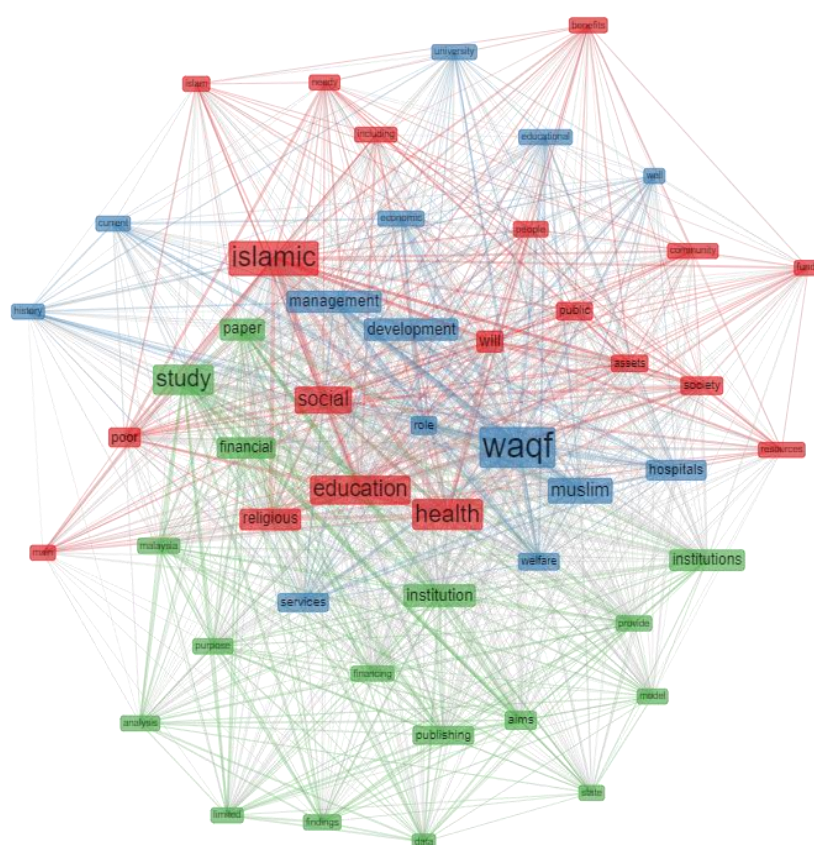


Figure 19. Co-occurrence network

The analysis of the results of the next study to analyze the conceptual structure is by mapping the co-occurrence of important or unique terms contained in the publication document on the theme of waqf on health. The results of the network visualization of the co-word map can be seen in Figure 19.

Based on the figure, it shows that the development map of waqf on health research is divided into 3 clusters as follows:

- Blue Cluster 1 consists of 14 topics dominated by 4 topics, namely Waqf, Development, Management, and Muslim. The other topics in this cluster are Hospitals, Welfare, Services, Role, History, Current, Economic, University, Educational, and Well.
- Red cluster 2 consists of 19 topics dominated by Islamic, Health, Education, and Social topics. The other topics are Religious, Main, Poor, Islam, Needy, Including, Benefits, People, Community, Funds, Public, Will, Assets, Society, and Resources.
- Green Cluster 3 consists of 17 topics dominated by Study topics. Other topics included in this cluster are Paper, Financial, Malaysia, Purpose, Analysis, Limited, Fundings, Data, Publishing, State, Financing, Aims, Institution, Model, Provide, and Institutions.

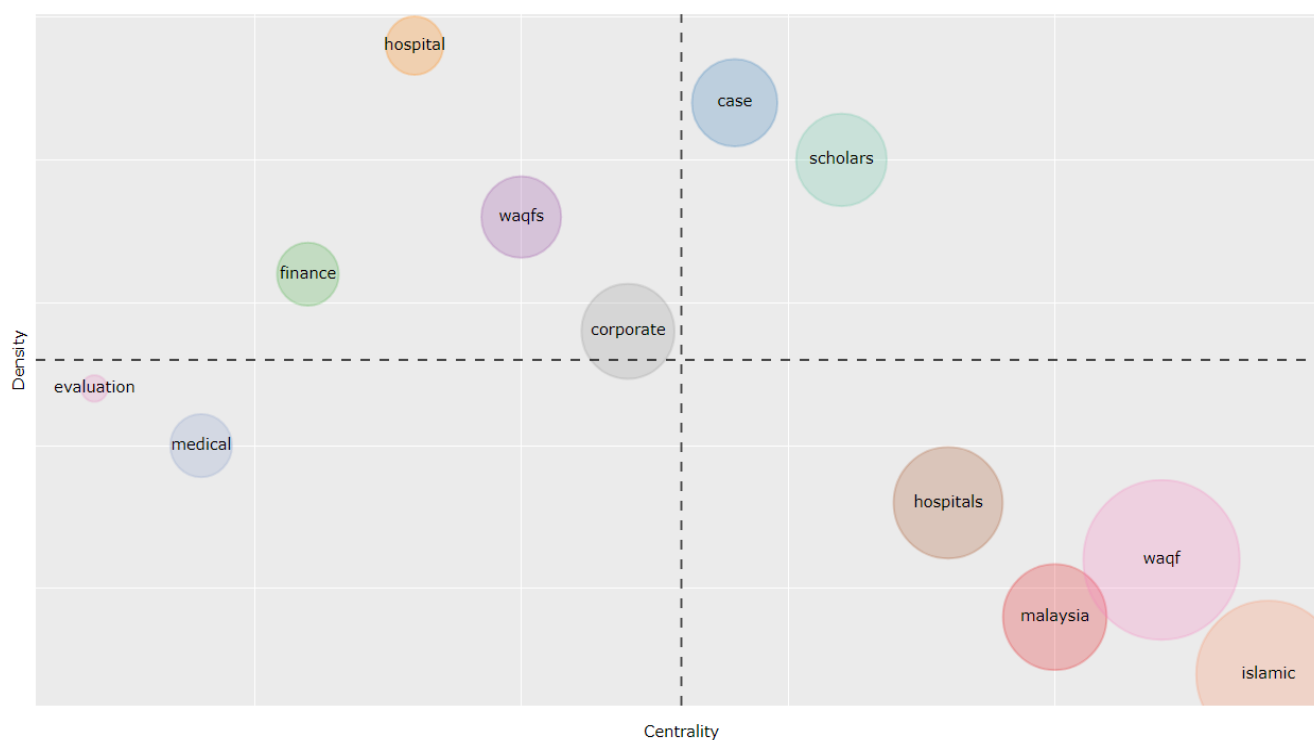


Figure 20. Thematic map

The image above shows the most commonly used keywords in waqf on health publications. Some of these words are keywords provided by the original author at the time of publication of the document. By applying a semi-automatic algorithm by reviewing the titles of all research object references with the addition of relevant keywords other than the author's keywords so that the results can capture deeper variations. It is possible to group various themes from a particular domain into 4 clusters.

Each cluster containing several themes can be represented on a specific plot known as a strategic or thematic map. The division is based on the elements of centrality and density. Centrality indicates the subject's interest in the whole field of research while density indicates a measure of the subject's development.

Based on Figure 20 shows the cluster located on the upper left which is characterized by high density but low centrality. The themes included in this cluster have

high development but are specific and rare themes. Some of the themes included in this cluster are Hospital, Waqfs, Finance, and Corporate. The next cluster located in the upper right quadrant is a theme with characteristics of high density and centrality, so it needs to be developed and studied further in further research. The themes that fall into this quadrant are Case and Scholars.

The next cluster in the lower left quadrant has a theme that has been used for a long time but is experiencing a downward trend with a fairly low centrality. The themes detected in this quadrant are Evaluation and Medical. The last cluster, lower right quadrant is the basic theme which is characterized by high centrality but low density. These themes are important to be included in the study because they are general topics that are commonly used and researched, including the themes of Hospitals, Malaysia, Waqf, and Islamic.

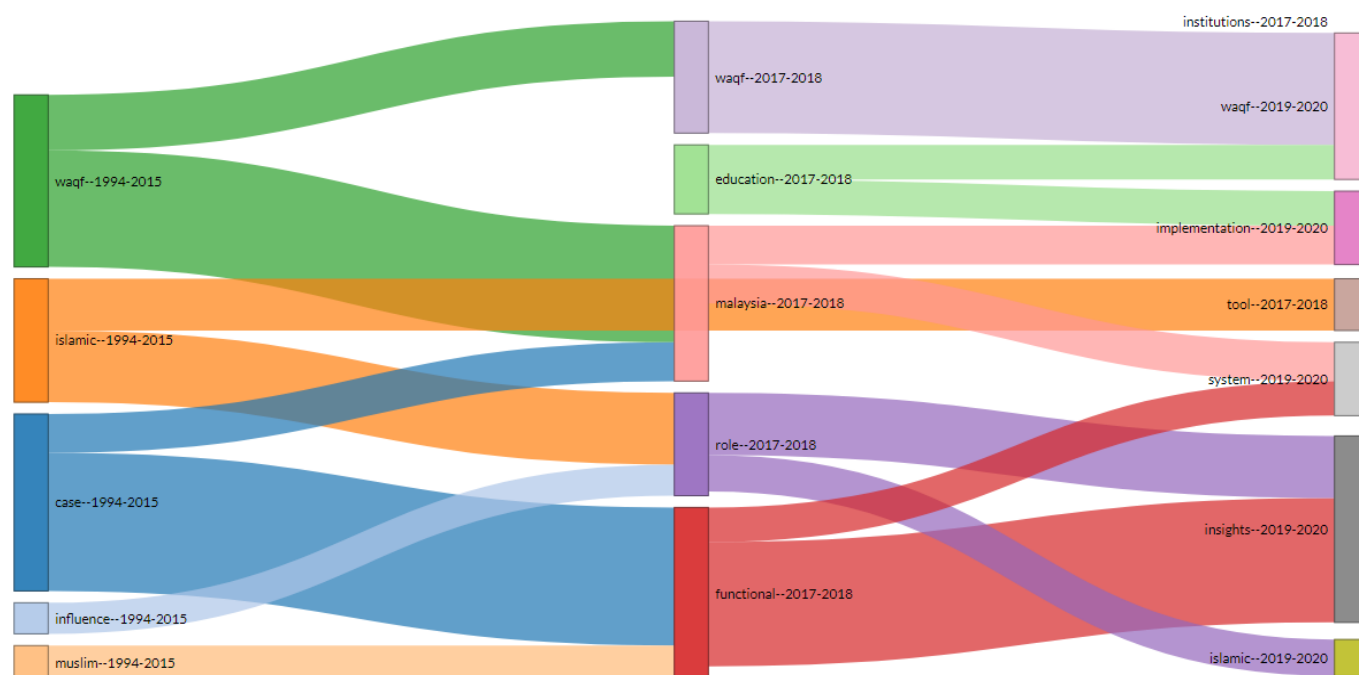


Figure 21. Thematic evolution

The theme used in the paper that is the object of research continues to change, especially from papers that have been recently published when compared to papers that have been published for a long time. The picture above shows the evolution of themes related to Waqf on health which consists of themes that are depicted as rectangles with a larger size, the more widely used. Although the theme of this research is waqf on health, the data obtained show that there are several sub-themes that are widely used. The left section shows a collection of themes that were widely used in the early period starting from 1994-2015. At this initial stage there are 5 registered themes with different sizes depending on the quantity of use of the theme. Waqf and Case themes took first place, followed by Islamic, Influence, and Muslim themes.

The second or middle section shows some of the most widely used themes throughout 2017-2018. Some of the themes that emerged during this time period were an evolution of the previously used themes and were related in their content, for example the Role theme

emerged as a form of revolution from Islamic and Influence themes. This shows that the research that uses the Role theme is an extension of the Islamic and Influence sub-theme research found in the previous research period. In this section, there are 6 themes, 1 of which is a theme that has appeared in the previous period, namely waqf. In addition, the most widely used theme in this period was Functional.

The third or right section shows the themes that have only been widely used in the period between 2019 and 2020. There are 5 listed themes, of which 2 themes are evolutions from the themes that emerged in the previous period, namely the Waqf and Islamic themes. Meanwhile, 3 other themes that are not evolutionary or emerging are Implementation, System, and Insights. The most widely used theme in this period was Insights, followed by Waqf, Implementation, System, and Islamic. There are several themes that do not have evolution so that they cannot be described with colorful plots, namely Institutions in the middle period, namely 2017-2018.

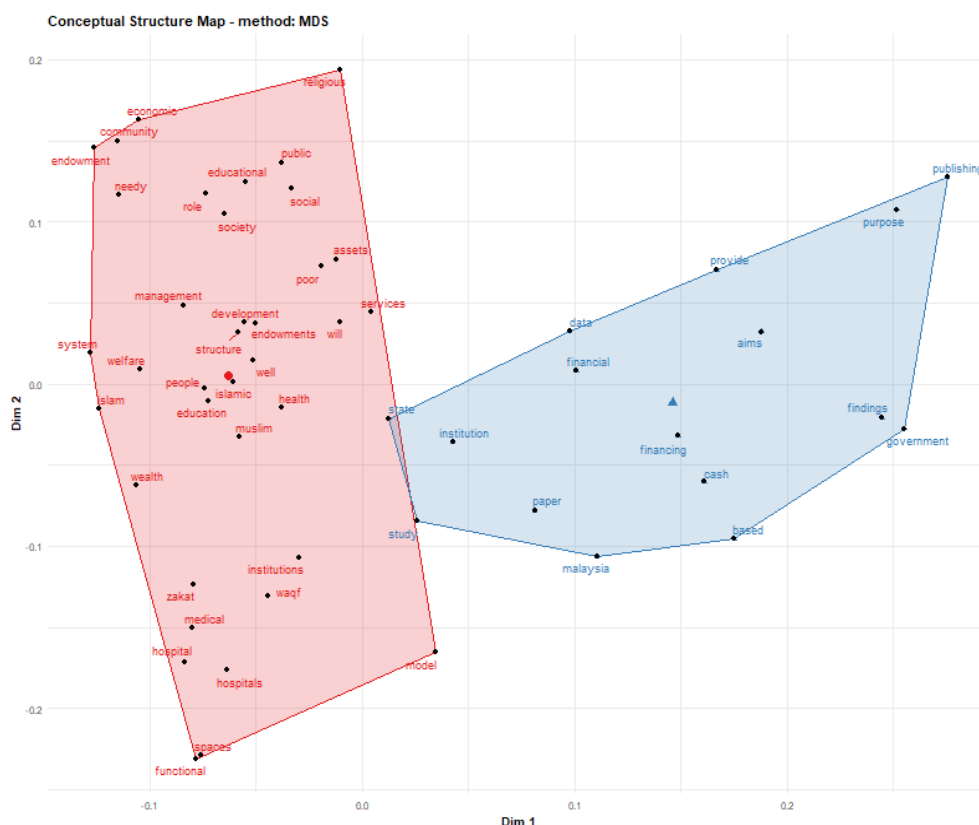


Figure 22. Conceptual Structure Map

This study also describes the conceptual structure map or contextual structure map of each word that often appears in research papers on the theme of waqf on health by dividing it based on mapping the relationship between one word and another through regional mapping. Each word is placed according to the values of Dim 1 and Dim 2 so as to produce a mapping between words that have not much different values.

In this data, there are 2 parts of the area that are divided, namely the red area, and the blue area where each area contains words that are related to each other. Based on the image above, the red areas show more and more variety of words that are included in it. This shows that many research papers link the words listed in this area.

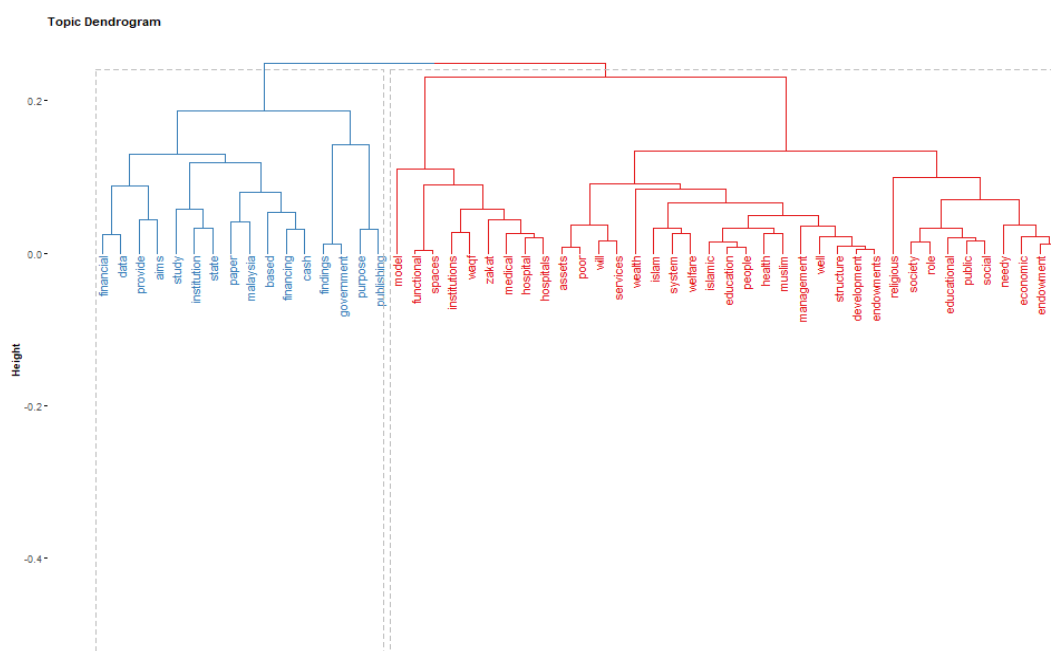


Figure 23. Topic Dendrogram

Next is a dendrogram tree diagram that displays topics that are widely used and their relation to other topics and the classification of these topics depicted in different colors. The representation of the dendrogram diagram is often used in various contexts, for example in a grouping hierarchy, this diagram illustrates the division of relationships between elements in groups resulting from software analysis. This grouping is also structured in such a way by considering the height of the line of coordination between topics and between clusters.

This diagram shows there are 2 classifications of topics, namely blue and red topics. This shows that there is a relationship between the topics in the far red classification and the topics in the blue classification. Each section is further divided into several clusters, then each cluster is further divided into several sub-clusters, and so on until the topic is used. Several topics are part of a cluster showing there is a connection between the two in research papers on the theme of waqf on health in recent years.

FINDINGS

Based on the overall results of the research conducted, it was found that the research theme with the theme of waqf on health had a close relationship and played an important role in the development of hospitals. This is supported by the word hospitals including the top most relevant keywords and appears in the research themes after the keywords waqf, Islamic, case, and Malaysia. The existence of hospitals and the quality of services in them are important points in access to health for the community. According to the WHO health indicators, public health in an area will at least be guaranteed if one of them is the ratio between health services and a balanced population. This makes the hospitals in the area able to accommodate and serve well the care and treatment needs of the community.

The role of waqf in the existence of hospitals is to provide waqf land for the construction of hospitals (Handayani & Kamilah, 2019). Optimization of hospital construction by empowering waqf land itself can be done by applying the Build, Operate, and Transfer (BOT) model where nadzhir as the recipient of the waqf property cooperates with third parties who are then called investors to fund the construction of hospitals on waqf land. Investors as investors are given the right to operate the construction of hospital infrastructure for a certain period of time which has been agreed between nadzhir and the investor. Then after the BOT period is over, investors must hand over land, buildings, hospitals and other health care supporting facilities to nadzhir. In addition to the types of land waqf that contribute to hospitals, there are also productive waqfs, which are cash waqf that are properly managed where the profits earned will be channeled to hospital operational funding so as to ease the burden of expensive medical expenses to be more affordable (Qurrata et al., 2019).

In addition, waqf indirectly plays a role in protecting the health of a person or family through sharia insurance or commonly known as takaful. The role of takaful in the health sector by protecting customers, including the lower middle class community from health risks, where if the takaful customer is sick, the medical costs will be partially or completely borne by the takaful company (Zakaria et al., 2019). The application of waqf empowerment in the takaful industry itself can be done by applying the wakalah-waqf model that utilizes mutual assistance funds or tabarru funds originating from the waqf premise (Abdullah & Yaacob, 2012). Waqf funds are money collected by takaful companies and also contributions from customers who join the waqf fund policy. The cash waqf funds are then managed by the company through investment placements in various sectors in accordance with sharia principles whose profits will be used to help all customers who contribute to waqf funds. Based on the wakalah contract, the company will receive payment for the services it has performed.

Another finding in this study is that Malaysia is the most contributing country in the field of waqf on health research. The development of health waqf empowerment in Malaysia can be said to be very good. In Malaysia, waqf funds in health are able to contribute to improving the health of low-income communities in various ways, namely by developing waqf-based health centers that provide specialist service clinics to patients at affordable costs, implementing waqf-based takaful, and even developing waqf-based takaful schemes for protect flood victims (Mikail et al., 2017; Zakaria et al., 2019; Salleh et al., 2020). Meanwhile, Indonesia with the largest Muslim population in the world in empowering health waqf is still not optimal. The use of waqf is only limited to using land to build hospitals and empowering productive waqf to help the operational burden of health in hospitals, although there are still many obstacles and it is not optimal (Qurrata et al., 2019; Ismail et al., 2019). The obstacles in managing productive waqf for the health sector are the lack of collected waqf funds, the lack of nadzhir's ability to manage funds, and the existence of distrust when carrying out business from waqf fund investments.

CONCLUSION

This research was conducted to find out the map of the development of research with the theme of waqf on health during the period 1994-2020. Based on the 42 publication documents used in this study, it shows that research with the theme of waqf on health has experienced constant development but since 2013 it has increased every year, especially in 2017. The top journals that publish the most and have the biggest impact on waqf on health research health is the Journal of Islamic Accounting and Business Research, while the author who has the biggest impact and has the longest track

record of writing is Ab Aziz MR. In addition, the author with the highest number of publications is Cirzarca M.

Malaysia is the country with the most author correspondence and the highest in publication productivity and publication citations on waqf on health. Then, the tertiary education affiliations with the most numerous and relevant publications are the International Islamic University Malaysia (IIUM), the Muhammadiyah University of Magelang, the State University of Malang, and the Malaysian Islamic Science University. The results of this study also show that the most widely used topic keywords are Waqf, Islamic, Case, and Malaysia. The evolution of themes that have always been the topic of research are Waqf and Islamic, while the themes that have emerged and have been widely used in recent years are Implementation, System, and Insights.

Based on the results of this study, it was concluded that the development of research related to waqf on health was growing, although not too massive, but along with these conditions, various trends in health waqf research topics grew. Given the large potential benefits of waqf and the problems that exist in the health sector, the development of global health waqf has not been optimal. Therefore, research related to the theme of waqf on health needs to continue to be developed considering that there is still a lot of potential that still needs to be explored further and the potential interest of the Muslim community towards waqf on health amid current global health problems whose performance has decreased due to the Covid-19 pandemic.

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