Qur'anic Studies based on Web of Science

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Abstract

The purpose of this research is to analyze and map the production of the Quranic sciences field at the international level indexed in the WoS database during the period 2000 to 2017 using the VOSviewer software to illustrate the results. Descriptive - analytical method used to achieve the research purpose. The research population is comprised of all documents regarding the Qur'anic studies indexed in the citation index of science and social sciences accessible through WOS. The results showed that most researches topics during 2000-2017 focused on Islam religion which was the main area of research. Regarding highly productive writers, Duderija and Behn each authored 9 documents and Burman placed in the next position. Zadeh, Rippin and Shoemaker have the highest number of co-authorship with 67, 62 and 42 documents, respectively. Also, there are 75 countries in the field of Qur'anic studies in the form of articles in which The United States, Turkey, Malaysia and Iran, with 313, 145, 129 and 114 articles, are the most productive countries in this field. Considering higher Education Institutes, Malaysia International Islamic University, Islamic Azad University, university Malaya and Tehran University with the production of 39, 38, 36 and 14 articles about Quran, respectively, are the most productive.

Keywords: Qur'anic Studies, Scientometrics, Web of Science.

Introduction

Studies on different subjects indexed in citation indexing systems lead to the development of science. The religious studies as a subject category are in favor of researchers. Among religious studied, Qur'anic studies are very important and it is investigated from different approaches (Bagheri, Mohammadi, & Shafiei, 2017). The scientometrics approaches in studies uncover quantitative as well as qualitative aspects of subjects under study. The Qur'an as a subject of study is the great miracle of the Prophet Mohammad (PBUH) and the charter of human guidance for prosperity. For this reason, it is of particular importance to Muslims. Followers of the Islamic faith read the Qur'an and try to apply its exciting guidelines in their lives.

The need to practice the teachings of the Quran is more than ever. But first of all, we must know the Qur'an and think it in. In the present age, it is necessary to convey the message of the Qur'an to the hearts of the susceptible and ready to accept the divine call, to research and operate valuable Qur'anic meanings using modern communication and promotional

methods. With this research, it becomes clear what the state of investigating the Qur'an in the world has been so far.

For decades, religious researches, including the Quranic ones in international arena, have been conducted by researchers from different countries on different continents. In this regard many of those who wrote about the book of Quran are from Western countries, especially Europeans and Americans. This research seeks to identify who in the international arena has produced the most scientific works on the Quran.

In this way, it will provide readers and researchers with a clear picture to try to become more prominent in the field of international scientific publications on Qur'anic studies. Experts in science studies using various methods and techniques, such as types of computational analyzes, syntaxes, and co-authorship, to study the structure of knowledge in different disciplines; the differences and similarities existing in each one of these techniques makes it possible to find new and different information about the studied disciplines (Chang, Huang, & Lin, 2015).

One of the most used methods for analyzing the structure of knowledge in various fields is the connection between the words used in different parts of the document (including title, abstract, keywords, etc.), from which is called syntaxes. More precisely, homogeneity analysis is one kind of coherent analysis and is one of the most important bibliometric methods used to map the relationship between concepts, thoughts, and problems in basic and social sciences. (Liu, Hu, & Wang, 2012).

By doing this kind of analysis, one can also highlight the main issues of the subject area, the semantic structure and evolution of those works over time. In analyzing homogeneous data, it is assumed that the most frequent words have a greater effect on this domain than the words of low frequency. Also, analyzing syntaxes will allow us to reveal emerging thematic clusters as well as developed clusters in the direction of predicting future research paths (Lee & Su, 2010). As stated, in the analysis of syntaxes, the conjugation of the words is examined at the level of the title, abstract, keywords, or the text of the documents. This kind of analysis shows the cognitive relation among a collection of documents.

In all of these approaches, software packages for analyzing scientific networks can be used to collect, visualize and analyze data. Analyzing and observing these networks produces new information that provides the opportunity for strategic planning and better design of the programs, as well as enables decision makers to describe the components of the network (Soheyli & Osareh, 2014).

In relation to Qur'anic studies regarding scientometrics, Mirhaghjoo Langroodi (2013) analyzed Journal of Quran Studies Quarterly and found half of the articles were co-authored and also showed the most productive universities and authors in this area. The share of Qur'anic studies of global science production belong to USA as the most productive country and Iran ranked at the fourth position (Khasseh, Sadeqi, Ezzati, & Ghaffari, 2017). Khasseh (2012) using clarivate analytics investigated Qur'anic studies at international level. He showed USA is at the top regarding number of productions and University of Michigan, King Saud University, and School of Oriental and African Studies, University of London ranked first to third, respectively. He concluded that Qur'anic studies have shown upward trend since 2005. Information ethics is a matter of importance in Qura;nic studies. Mokhtari and Shafitabar-Samakoosh (2018) concluded that Quran directly and indirectly consider ethical issues regarding information in all aspects and recalled its importance. Co-word analysis of the structure of knowledge in the Qur'nic and Hadith sciences uncovered keywords such as Quran, Nahj al-Balagha, and Imam Ali were the most frequent. The study showed 11 clusters

regarding Qur'anic and Hadith studies in Iran using ISC citation database during 2006-2015 (Ghazizadeh, Soheili & Khaseh, in print).

By reviewing the previous literatures, it seems that the use of the co-occurrence analysis method of vocabulary as a branch of scientometrics has been able to well serve the design of the scientific areas, and this method is welcomed by researchers. In that regard, the aim of the study is to analysis and mapping publications considering Qura'nic studies indexed in Clarivate Analytics WoS during 2000 to 2017. To achieve the aim, the following questions were addressed.

1. What are the co-word occurrences in Qura'nic studies?
2. Who are the most effective writers?
3. Which countries are effective ones?
4. What are the most effective institutions regarding Qura'nic studies?

Research Methodology

To achieve the purpose, WoS database has been used for data collection. The statistical population of this research includes all Quranic documents indexed in WoS. Using field tag, TS (Topic) in advanced search various forms of Qur'anic words including (Qur'an OR Koran OR Alcoran OR Qur'ān OR Coran OR Kuran OR al-Qur'ān OR Quran) were searched. After reviewing the retrieved data, it was restricted to articles only, and other templates were removed from the search results (including 1,469 articles from 2000 to 2017). To draw maps for the co-occurrence analysis method of vocabulary, basic keywords were extracted from the collected articles, then the keywords of each course were separately introduced into the VOSviewer software and the maps were drawn up.

Findings

Figure 1 is a co-occurrence map of the vocabulary in the Quran field from 2000 to 2009, which identified 28 basic keywords. Key words were entered into VOSviewer software with at least 2 events to draw the corresponding map. The Figure 1 has a variety of "different colors" from the blue (the least practical topics or topics that have not yet been identified and have not been investigated) to the red (most used topics).In this period, keywords like Islam, morphology, religion, each with 15, 7, and 4 occurrences, respectively, have the highest frequency and have hot spots (red) on the map.
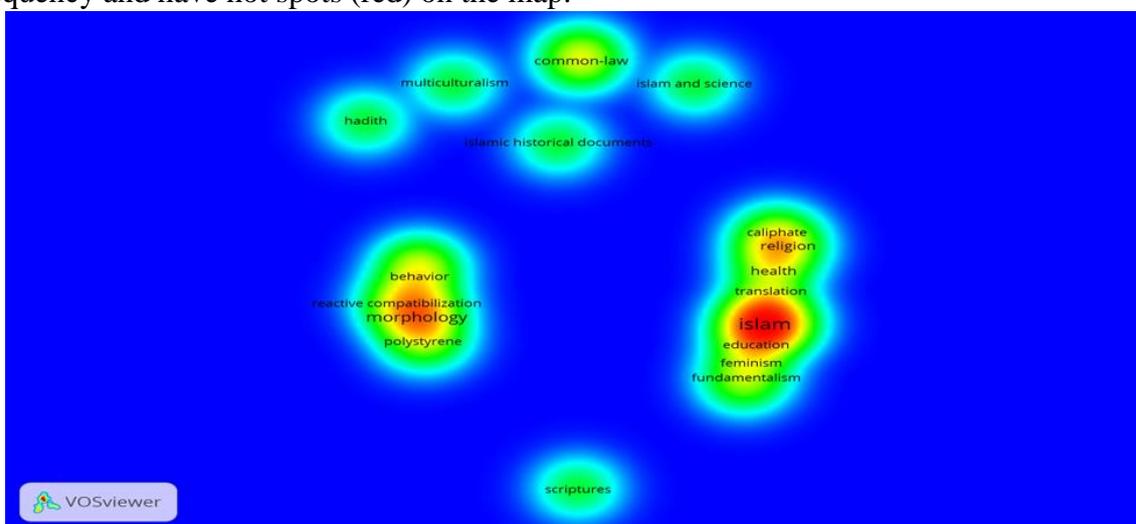

Figure 1. Co-occurrence of vocabulary during 2000-2009

But in terms of linking (Figure 2), categories like Islam, morphology, each with 6 links to other subject categories and life behavior with 5 links to other categories are those with the most links with others. Although there are two co-occurrence frequencies in the field of hadith, Islam and science, Islamic historical documents, multiculturalism and scriptures, have not linked to any other subject matter and are considered as the least important issues in the Qur'anic studies.
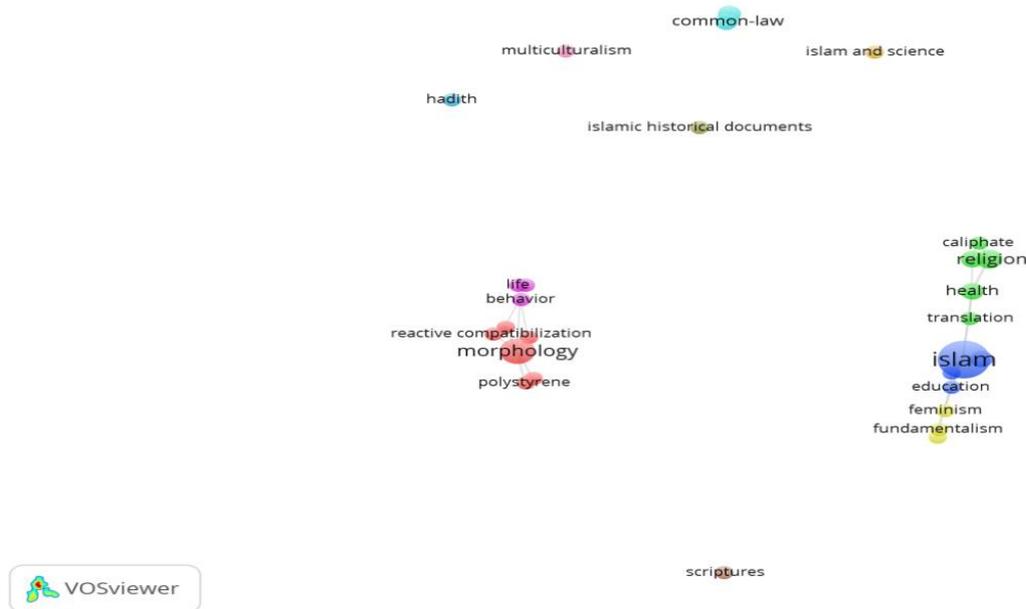

Figure 2. Link to other topics during 2000-2009

Figure 3 shows the co-occurrence map of the vocabulary in the area under study during the years 2009-2017. First, the key words were extracted from the keywords, abstract, and text (including 308 keywords) to draw up a coherent mapping. Then the keywords that have more than 2 occurrences were entered into the VOSviewer software. As shown in Figure 3, categories such as Islam, religion, women, hadith, tafsir, etc., were respectively 146, 39, 24, 24 and 21 frequencies of widely used categories in the Quran.

Figure 3. Co-occurrence of vocabulary during the years 2009-2017

Figure 4 shows the links between the thematic categories. According to the information obtained from this map, 1222 links were established between the categories of the Quran. And issues such as Islam, religion, and women are 148, 64, and 59 respectively, with the most links with other thematic categories.

Also, categories such as architecture, belief, discourse, Hanafi, Islamic astronomy and many other categories, although having 2 frequencies in the articles on the Qur'an, have only linked one another with other categories.

Figure 4. Link to other topics during the years 2009-2017

The most effective writers of the Qura'nic literature

The top ranking map of Qur'an which has the most productive writers is shown in Figure 5. Due to the large number of authors, writers who had at least two degrees in Quran domain were identified and finally 227 authors entered the relevant software. In general, there are 933 links among the authors. In the map below, each author is identified with different size node. Also, some nodes are connected by edges (links), which indicate the authors' scientific association with the generated documents.

The magnitude of nodes in such plans means the impact and superiority of the author in the area under consideration. Thus, Duder and Behn Each with 9 degrees centrality and Burman with 7 documents have the most number of documents in Qur'anic studies. It was determined by the studies carried out on Qur'an that Shoemaker, Rippin and, Zadeh have also co-authored 62, 47, and 42 authors, respectively.
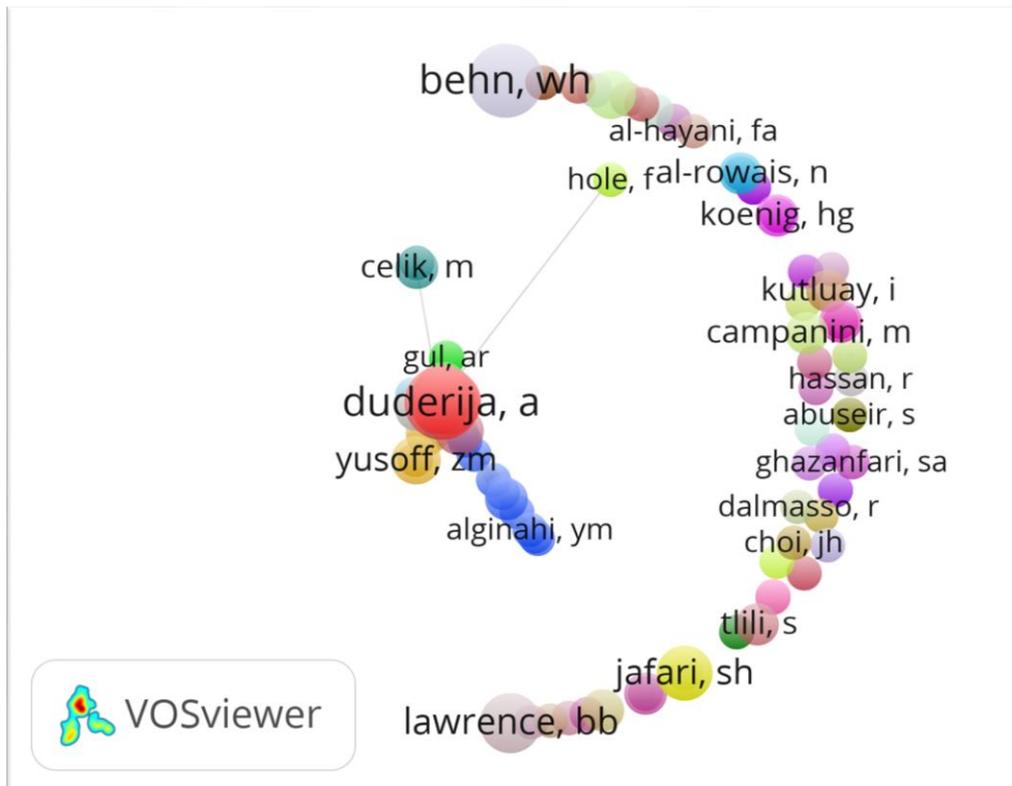
Figure 5. Writers with the most effective articles about Quran

Effective countries in the scientific articles about Quran

Figure 6 shows the map of the producing countries of Qura'nic articles. The data showed that 75 countries in the studied area have scientific production in the form of articles, and thus 75 nodes and 676 links between nodes were formed. The countries of the United States, Turkey, Malaysia and Iran, respectively, produce 313, 145, 129 and 114 articles, with larger nodes than other countries. On the other hand, the United States, Britain and Canada each have 64, 56 and 50 other countries in their scientific production, respectively. Countries like Afghanistan, Mexico, etc. each have an article in the field of Quran, and they have also been co-authored with other countries in these productions.
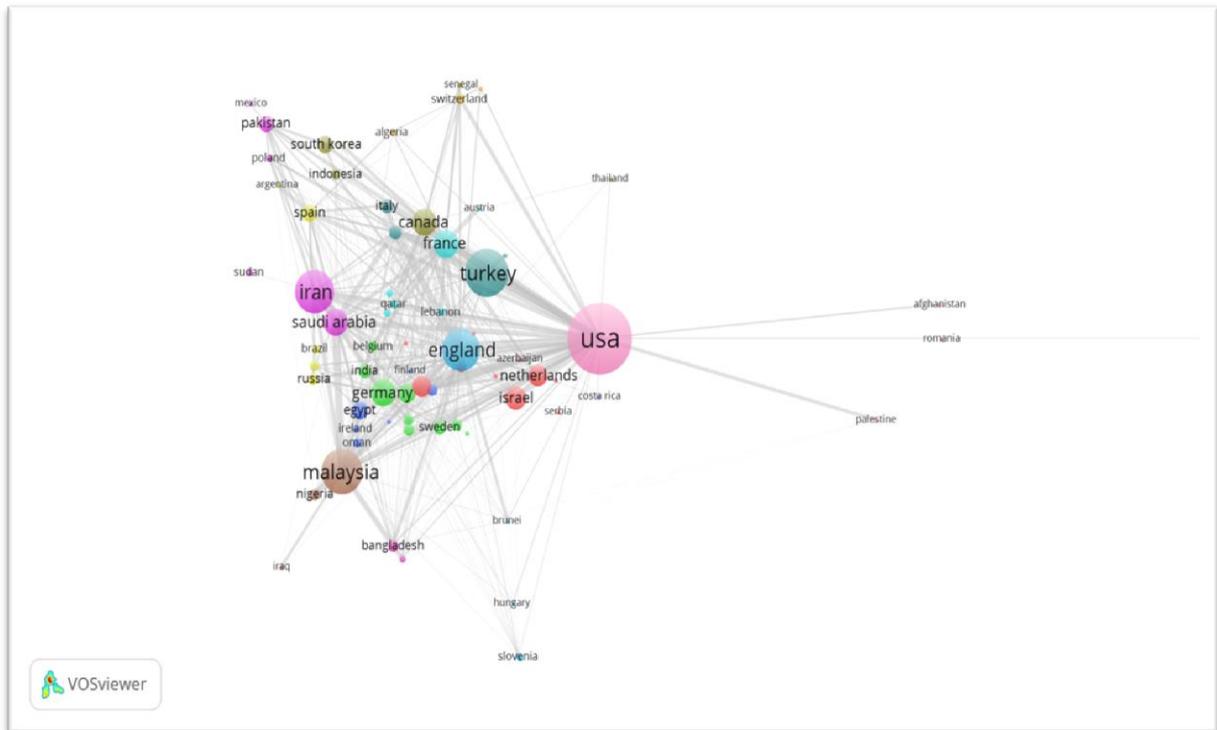
Figure 6. countries producing articles in Qur'an studies

The most effective institutions in relation to Quran domain

The most effective institutions in relation to Qura'nic studies are mapped in Figure 7. To map the institutions that have at least 2 papers in the field, they were identified and entered into the VOSviewer software (including 263 universities and institutes). Thus, 263 nodes and 2371 links were created between these nodes.

Malaysia International Islamic University, Iran Islamic Azad University, university Malaya and Tehran University with the production of 39, 38, 36 and 14 articles about Quran, respectively, have larger nodes. The listed institutions have more impact on the maps in terms of producing more articles than other institutes and universities.

Georgetown University, Victoria University and Malaya University Each was compiled with 96, 79 and 75 institutes and universities, respectively, and therefore, these nodes removed more edges (links) to other nodes.
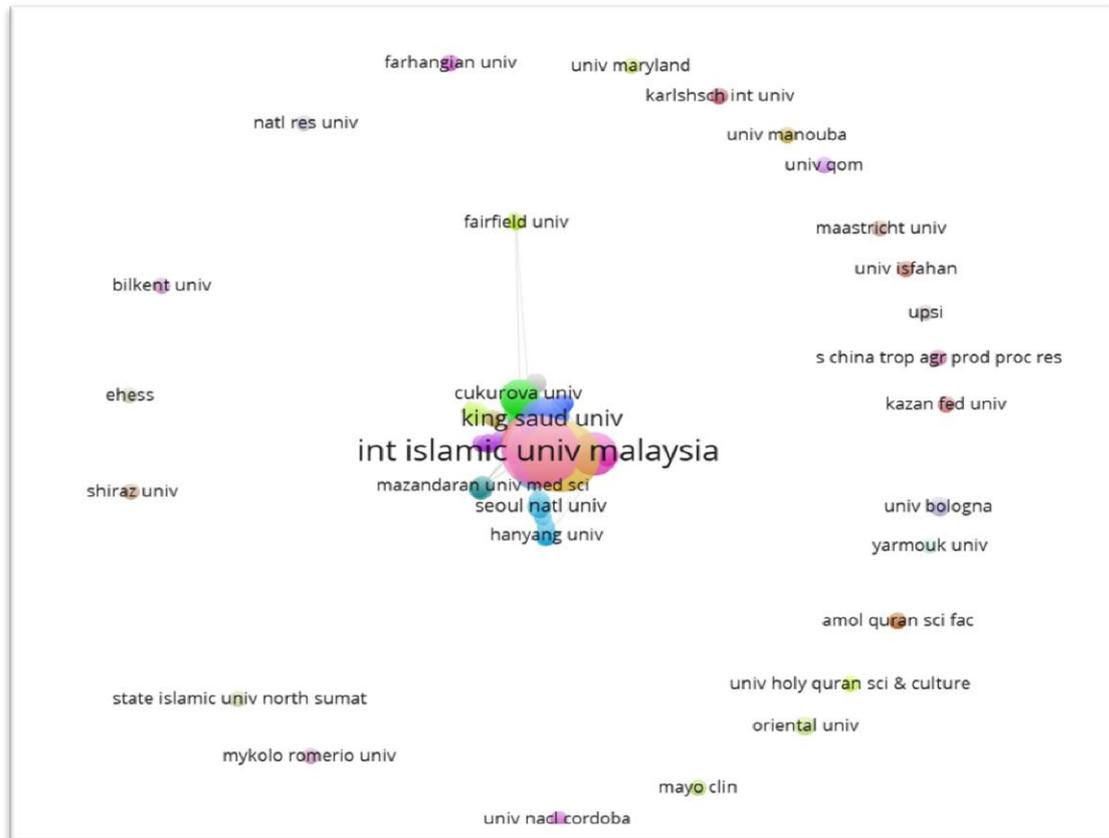
Figure 7. The most effective institutions in Qura'nic studies

Discussion

In this research, it was tried to identify the structure of Qura'nic studies and the relationship between the subject areas using the lexical analysis and the study of the co-occurrence of key words and other information in the field of Qura'nic sciences. The results of the analysis indicate that the thematic areas in the field of Qura'nic sciences have changed over time and have been dynamically expanded. Although most researches in both periods of study are about Islam and Religion, but in the period from 2009 to 2017, the subject areas have expanded. These maps, at different times, show the changes and persistence in the concepts and words related to Qura'nic studies. Some words are presented during all the years that have been studied, and new concepts are created as a remix of existing words and in interaction with new discussions and developments. For example, in the second period, more topics have been studied and the map from 2009 to 2017 has become more crowded and the range of topics has increased. For the top writers on Quran in terms of productivity, writers who have at least two degree centrality in the Quran domain were identified and 227 were examined. In general, there are 933 links among those authors. In the authors' map, each author has a different size node. Also, some nodes are connected by means of edges (links), which indicate authors' scientific association with the generated documents. The magnitude of circles in such plans means the impact and superiority of the author in the area under consideration. For the top writers, Duderija and Behn each has 9 certificates and Burman with 7 degrees have the most scientific products. Shoemaker, Rippin and Zadeh have the highest number of co-authorship with 67, 62 and 42 respectively. Also, there are 75 countries in the field of Qur'anic scientific productions in the form of articles in which The United States, Turkey, Malaysia and Iran, with the production of 313, 145, 129 and 114 articles, are the most

scientific productive. These findings in relation to USA and Iran are in accordance with Khasseh, Sadeqi, Ezzati, & Ghaffari, (2017) findings. Malaysia International Islamic University, Islamic Azad University, university Malaya and Tehran University with the production of 39, 38, 36 and 14 articles about Quran, respectively, are the most productive. Finally, Georgetown University, Victoria University and Malaya University each with 96, 79 and 75 has the highest number document co-authorship.

It is noteworthy that word frequencies and co-words occurrences show interesting results considering thematic categories. Words with a word frequency of one or two were Hadith and Science. But more than two word occurrences are words such as Islam, Morphology, and Life behavior. The research findings for word frequencies seem to be the opposite of those for Ghazizadeh, Soheili & Khaseh, results (in print) that Quran, Nahj al-Balagha, and Imam Ali were the most used words.

Conclusion

According to the findings and discussion in this section, Muslim countries have been placed after the United States in the field of Qur'anic researches in terms of the number of scientific publications.

Although Turkey, Malaysia and Iran ranked second, third and fourth respectively, and this is satisfactory, but researchers from the Muslim countries in this area of international scientific production should be placed in the lead, both in terms of increasing scientific production and in terms of ranking.

Also, according to the maps presented in the findings of this study, the red points show the researches that focus on hot and update hotlines internationally. Some researches in the same direction or in response to these areas need to be carried out in these areas.

There are also numerous cases in the maps that are separate from other topics, which suggest that these cases have been neglected so that researchers can produce scientific products in those fields and activate them.

References

Bagheri, P., Mohammadi, M. R., & Shafiei, N. (2017). Thematic Analysis of Persian Documents in the Field of Quran Study and Medicine in National Scientific-Research Journals from 1992 to 2013 "An Opportunity for Evidence Based Decision Making". *Journal of religion and health*. 56(3), 755-775.

Chang, Y.W., Huang, M.H., & Lin, C.W. (2015). Evolution of research subjects in library and information science based on keyword, bibliographical coupling, and co-citation analyses. *Scientometrics*. 105(3), 2071-2087.

Ghazizadeh, H, Soheili, F. & Khasseh, A. A. [in Print] Mapping Knowledge Structure of Quran and Hadith Studies in Iran: A Co-word Analysis. *Scientometrics Research Journal*. [in Persian].

Khasseh (2012). Analysis of Qur'anic Studies at international level. *Journal of Quran and Science*. 10, 145-166. [in Persian].

Khasseh, A. A., Sadeqi, S., Ezzati, I. & Ghaffari, S. (2017). Khasseh, Sadeqi, Ezzati, Ghaffari. *Quranic Studies Quarterly*. 7(28), 47-69. [in Persian].

Lee, P.C., & Su, H.N. (2010). Investigating the structure of regional innovation system research through keyword co-occurrence and social network analysis. *Innovation*. 12(1), 26-40.

Liu, G.Y., Hu, J.M., & Wang, H.L. (2012). A co-word analysis of digital library field in China. *Scientometrics*. 91(1), 203-217.

Mirhaghjoo Langroodi, S. (2013). Evaluation Scintometric of Quran Studies Magazine. *Quranic Studies Quarterly*. 4(16), 141-155. [in Persian].

Mokhtari, H., & Shafitabar-Samakoosh, N. (2018). Some Principles of Information Ethics from the Koran. *International Journal of Information Science and Management (IJISM). 16(1), 153-163.*

Soheili & Osareh (2014). A Survey on Density and Size of Co-authorship Networks in Information Science Journals. *Iranian Journal of Information Processing & Management*. 29(2): 351-372.