

Review

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Review

A Systematic Review of Global Research Trends on the Philosophy of Avicenna Between 2000 and 2023

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Abstract: Background: Due to the importance of Avicenna in the history of philosophy and his special views and ideas, the views of this philosopher have always been examined by scholars and researchers. This is why many researchers have been published in connection with Avicenna's philosophy. Thereby, the comprehensive study in relation to the review of previous studies about philosophy of Avicenna is important. **Methods:** The Web of Science Core Collection has been used to review documents, and the data has been analyzed in VOSviewer. **Results:** Based on the findings in the WoS and also the maps made by VOSviewer, Types of documents, languages, documents per year, countries, journals, authors, citations, and keywords were analyzed, and based on these data and analysis the limitations of studies are realized.

Keywords: avicenna; web of science core collection; bibliometric study; avicenna's philosophy

Introduction

Avicenna or Ibn Sīnā (980-1937) is one of the great philosopher in the Islamic World and even in the world, who wrote many works in the fields of logic, natural sciences (cosmology- natural wisdom), and theology. In addition to discussing about various philosophical issues, he has been able to express them in a comprehensive manner and has been able to establish unity between intellectual traditions (Gutas, 2016). Although he has understood Aristotle's views well and has theorized based on Aristotle's principles in the early part of his philosophical life, he is an independent philosopher and in the second period of his intellectual life he has establish his own independent philosophy, which we can call Avicennian Philosophy or *Hikma-al-Sinawi*. It should be noted that, he was not only an interpreter of Aristotle in the first period of his intellectual life, but he can be considered as part of the Peripatetic philosophical school. As a matter of fact, he wrote many of his philosophical foundations on the basis of the principles of the Peripatetic school. For example, many of these principles can be found in his works such as *Shifa* and *Nijat* (See Avicenna, 1983a; Avicenna, 2006). However, he has provided a number of his philosophical innovations in *Ishārāt wa Tanbihāt* especially in discussion about Soul in the natural sciences part, and topics related to theology. In addition, he has also discussed about mystical philosophy in the theology section (Avicenna, 1997). Fakhr al-Dīn al-Rāzī considers Avicenna's discussions in mysticism to be very especial (Razi, n.d). Furthermore, Avicenna has made several innovations in the logic of *Ishārāt wa Tanbihāt*. For example, Avicenna gave a new order to logic, he has arranged the logic in two parts instead of nine parts (Azimi, 2018). In addition to *Ishārāt wa Tanbihāt*, some of Avicenna's special philosophical opinions can be found in *Al-Talīghāt* and *Al-Mubāhīsāt* (See Avicenna, 1983b; Avicenna, n.d). Moreover, he has expressed his ideas about love in *A Treatise on Love* (*Risāla fi l-īshq*) (Avicenna, 2004). On the other hand, many noble ideas about domestic science which is in the practical wisdom can be seen in a treatise of *The Politics* (*Tadābir al- Manāzil* or *Sīāsāt al-Ahliya*) in which he has mentioned economic issues and issues related to family affairs (See Avicenna, 1929). It is worth noting that, in addition to *fi Maqāmāt al-'Arifīn* (Namat 9), and *fi Asrār al-Ayāt* (Namat 10) in *Ishārāt wa Tanbihāt* he wrote about mysticism, Avicenna has other mystical treatises such as *The Bird* (*Risāla-al-Tayr*), *Salāmān* and *Absāl*, and *Hayy ibn Yaqzān* (See Avicenna, 1991; Avicenna. 2003; Avicenna, 2008). Accordingly, he can also be considered as one

of the revivalists of illuminative philosophy, i.e. the philosophy which existed in the Ancient Iran is revived by Shahāb al-Din Suhrawardi.

Consequently, as what has been said, Avicenna's philosophy is very significant and it can be claimed that many of the contents of his philosophy have not yet been understood by others or have been neglected.

The importance of this study is due to the fact that we systematically review the studies that have been done on Avicenna, and this will cause the neglected topics and issues to be noticed by other researchers.

Methodology

This research composed from three steps: Data extraction; Data screening; and bibliometric analysis. For conducting the present study, the Web of Science (WoS) databases on March 21 2024 was used for collecting and extracting data. The Web of Science contains several bibliographic and scientific data in a various fields of study (Li et al. 2018; Kumpulainen & Seppänen, 2022; Kalantari et al. 2023). For data extraction, these keywords were used for gathering data: ("Philosophy of Avicenna" OR "Philosophy of Ibn Sina" OR "Metaphysics of Avicenna" OR "Metaphysics of Ibn Sina" OR "Avicenna Philosophy" OR "Avicenna Metaphysics" OR "Ontology of Avicenna" OR "Epistemology of Avicenna" OR "Ontology of Ibn Sina" OR "Epistemology of Ibn Sina" (Topic)) AND ("Philosophy" OR "Metaphysics" OR "Ontology" OR "Epistemology" OR "Logic" (Topic)) OR ("Logic of Avicenna" OR "Logic of Ibn Sina" OR "Avicenna's Logic" OR "Ibn Sina's Logic" OR "Avicenna Logic" OR "Political Philosophy of Avicenna" OR "Political Philosophy of Ibn Sina" OR "Avicenna Political Philosophy" OR "Avicenna's Ethics" OR "Ibn Sina's Ethics" (Topic)) OR ("Avicennian Moral Philosophy" OR "Moral Philosophy of Avicenna" OR "Moral Philosophy of Ibn Sina" OR "Avicenna's Moral Philosophy" OR "Ibn Sina's Moral Philosophy" (Topic)) NOT ("Biology" OR "Medicine"). After entering these keywords, 543 documents found and this study was limited to articles, review articles, books, and book chapters. Moreover, these documents were between 2000 and 2023 with different languages (English, Turkish, Spanish, French, and Arabic). Finally, 420 documents found for this review.

Analysis Tools

As our study is a systematic review, we prefer to use VOSviewer (version 1.6.20) for this review. This software is free for researchers and suitable for systematic reviews (van Eck & Waltman, 2010). For drawing charts and flowchart, we use Microsoft Excel and Visio (Micro-soft Inc., Redmond, WA, USA).

Results and Discussion

Our discussion is divide to Subject areas; Types of documents; Languages; Analyzing documents per year; Analyzing active countries; Analyzing active journals; Analyzing active authors; Analyzing citations; analyzing keywords; Discuss about limitations, and recommendations.

Subject Areas

Although the documents are divided into the variety of categories, we mentioned to seven major WoS categories. 1. Philosophy with 182 documents; 2. Religion with 139 documents; 3. History and philosophy of science with 73 documents; 4. Humanities and multidisciplinary with 43 documents; 5. Medieval Renaissance Studies with 34 documents; 6. Ethics with 16 documents; 7. Logic with 12 documents. The scientific documents in other categories are between one to five. In addition to this, a number of articles are share in two or even more two categories (See Street, 2000; Lagerlund, 2009; Mousavian & Ardeshir, 2018; Lizzini, 2023).

Types of Documents

Due to our adopting to limitation of documents types to article, review article, and book chapters, these three categories can be analyzed. Article, among them, was the first. Book chapter and review articles was the second and third respectively. The Figure 1 shows the percentages of these types.

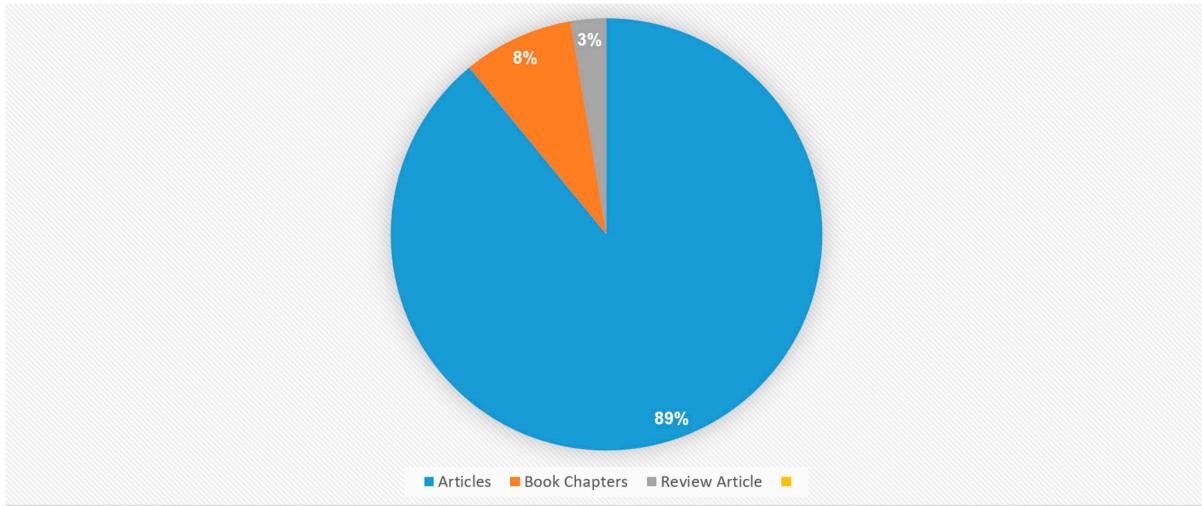


Figure 1.

Languages of Documents

The vast majority of researches were conducted in English (334 documents), and following it, 58 documents were written in Turkish, and 19 scientific documents were written in Spanish with 19. French (13) and Arabic (1).

Analyzing Documents Per Year

The vast number of scientific documents are shown in the last 5 years. In addition, in some years, the number of documents are over 10 per years. Overall, the upward trend in last 8 years can be observed.

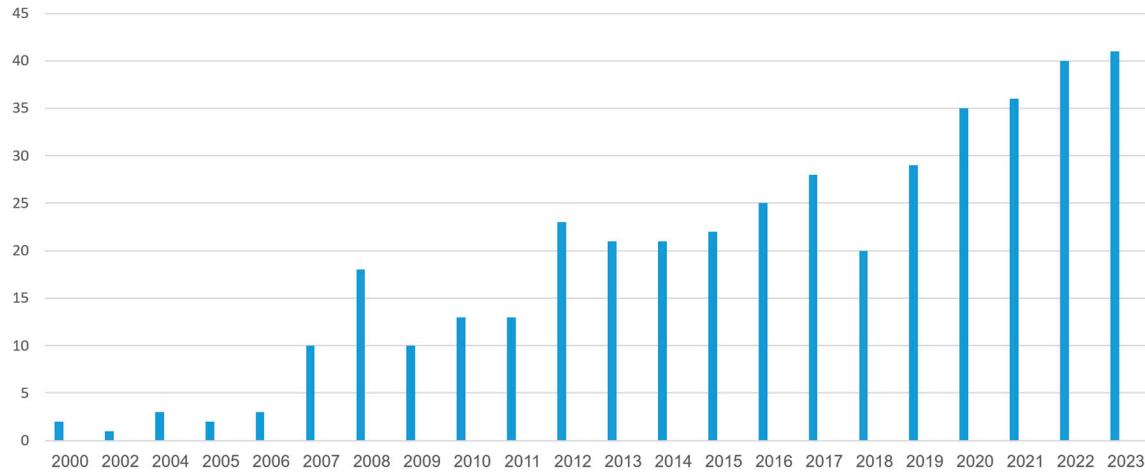


Figure 2

Analyzing Active Countries

According to TP, Turkey with 67 publications is the first place, and USA with publishing 64 scientific documents is the second place. Following them, England (42), and Iran (39), are the third and fourth place. Germany, France, Canada, Italy, Finland, and Spain are between fifth place to tenth place. In addition, USA is the first according to citations and Germany is the second place with 432

and 345 number of citations respectively. England and Canada are the third and fourth with 211 and 148 respectively. The number of citations of other countries can be seen in table 1. Furthermore, England is the first according to TLS, and USA and Iran with 6 links are the second place. Germany with 4 links is third. Some countries have no link.

Table 1.

Countries	TP (R)	TC (R)	TLS (R)
Turkey	67 (1)	43 (8)	1 (6)
USA	64 (2)	432 (1)	6 (2)
England	42 (3)	211 (3)	7 (1)
Iran	39 (4)	103 (5)	6 (2)
Germany	32 (5)	345 (2)	4 (3)
France	20 (6)	102 (6)	3 (4)
Canada	17 (7)	148 (4)	0 (-)
Italy	17 (8)	56 (7)	2 (5)
Finland	10 (9)	24 (9)	0 (-)
Spain	7 (10)	6 (10)	0 (-)

Note: TP: Total Publications; TC: Total Citations; TLS: Total Link Strength; R: Rank of country in TP, TC, and TLS.

Although the link between countries is low, but many countries like England, USA, and Iran is link with other nations. The link between countries can be seen in the Figure 3.

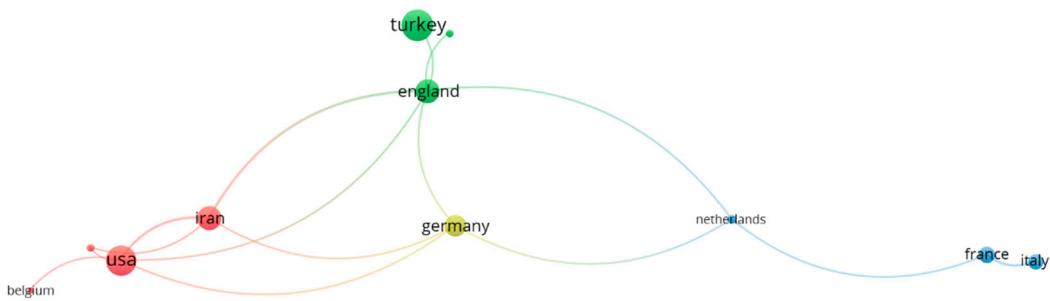


Figure 3

Analyzing Active Journals

Among the top 10 journals which have mentioned in Table 2, Oriens is the first in the number of publications, citations and link strength, with impact factor of 0.3. Arabic Sciences and Philosophy was the second place with 14 publications and 224 citations with 47 link strength and impact factor of 0.3. Nazariyat is the third place according to total publications and the Unity of Science in the Arabic Tradition is the third according to citations (101). In addition, this source is the third according to TLS.

Table 2.

Journal	TP (R)	TC (R)	TLS (R)	IF (R)	Publisher
Oriens	33 (1)	279 (1)	56 (1)	0.3 (2)	Brill
Arabic Sciences and Philosophy	14 (2)	224 (2)	47 (2)	0.3 (2)	Cambridge University Press
Nazariyat	17 (3)	11 (6)	17 (4)	0.3 (2)	SCIENTIFIC STUDIES ASSOC-ILMI ETUDLER DERNEGI-ILEM
CUMHURIYET	16 (4)	6 (8)	7 (6)	0.1 (3)	CUMHURIYET
ILAHIYAT					UNIV, FAC
DERGISI-					THEOLOGY
CUMHURIYET					
THEOLOGY					
JOURNAL					
BILIMNAME	15 (5)	10 (7)	4 (7)	0.1 (3)	ILAHIYAT
					BILIMLERI
					ARASTIRMA
					VAKFI
DOCUMENTI E	13 (6)	18 (5)	10 (5)	0.3 (11)	SISMEL EDIZIONI
STUDI SULLA					GALLUZZO
TRADIZIONE					
FILOSOFICA					
MEDIEVALE					
BRITISH JOURNAL FOR THE HISTORY OF PHILOSOPHY	11 (7)	30 (4)	29 (3)	0.6 (1)	ROUTLEDGE JOURNALS, TAYLOR & FRANCIS LTD
ANALES DEL SEMINARIO DE HISTORIA DE LA FILOSOFIA	10 (8)	10 (7)	0 (-)	0.3 (2)	UNIV COMPLUTENSE
					MADRID, SERVICIO
					PUBLICACIONES

The Unity of Science in the Arabic Tradition*	9 (9)	101 (3)	29 (3)	-	Springer
BEYTULHIKME- AN INTERNATIONAL JOURNAL OF PHILOSOPHY	9 (9)	1 (9)	0 (-)	0.1 (3)	BEYTULHIKME FELSEFE CEVRESI

Note: TP: Total Publications; TC: Total Citations; TLS: Total Link Strength; CS: Impact Factor; R: Rank of Journal in TP, TC, TLS, and IF. *Title of book

As we said before, and as we can see in the Figure 4. Oriens is the first according to TP and TLS. For example, this journal based on their articles about this field is link with Arabic sciences and philosophy, Nazariyat, and Bilmname.

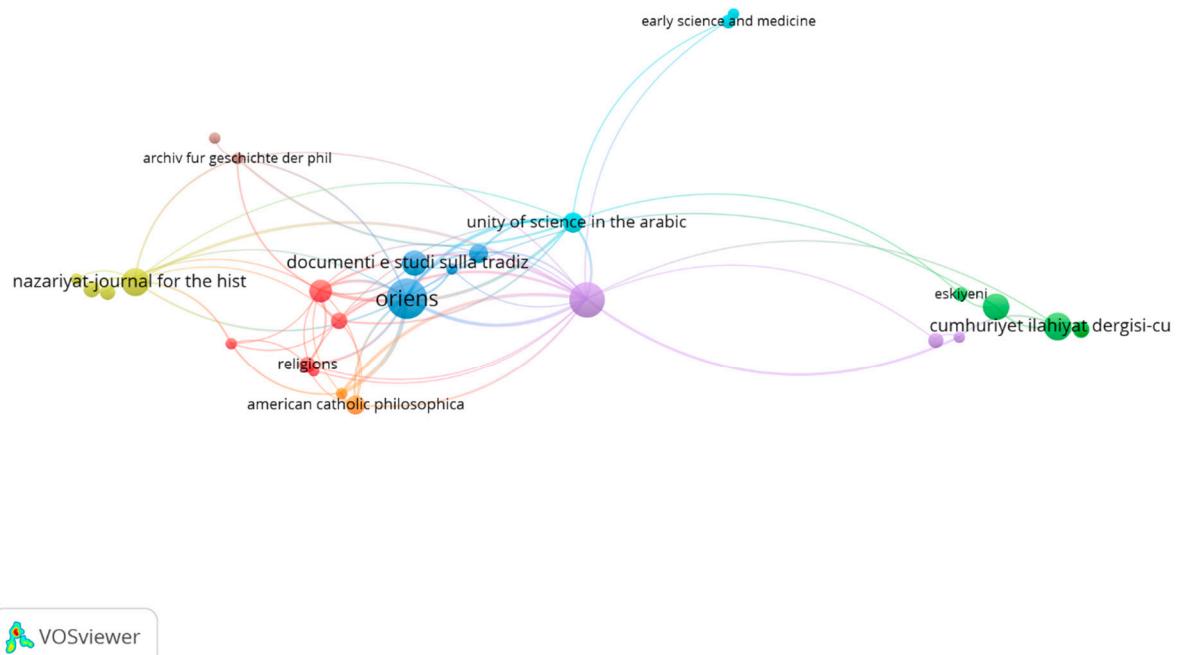


Figure 4

Analyzing Active Authors

As can be seen in Table 3, 7 authors from 10 authors have 5 publications, while Benevich, Fedor have 8 publications with total citations of 58. He is link with Adamson, Peter in an article about Avicenna's flying man thought experiment (Adamson& Benevich, 2018). In addition to Benevich, Fedor, McGinnis, Jon has 58 citations. For example, 19 citations from 58 citations is related to a research titled "Avicenna's Naturalized Epistemology and Scientific Method" (McGinnis, 2008). Following this, Bertolacci, Amos with 50 citations is the third, and the most cited Bertolacci's research

titiled "The Distinction of Essence and existence in Avicenna's Metaphysics: The Text and its Context" with 37 citations in WoS (Bertolacci, 2012). Adamson Peter with 37 citations, Chatti, Saloua with 29 citations, Janos, Damien with 21 citations, Akdag, Ozcan with 7 citations, and Di Vincenzo, Silvia are placed in the next places.¹

Table 3.

Countries	TP	TC	TLS
Benevich, Fedor	8 (1)	58 (2)	1
Chatti, Saloua	5 (2)	29 (5)	0
Bertolacci, Amos	5 (2)	50 (3)	0
Di Vincenzo, Silvia	5 (2)	1 (8)	0
Freudenthal, Gad	5 (2)	60 (1)	0
Janos, Damien	5 (2)	21 (6)	0
Mcginnis, Jon	5 (2)	58 (2)	0
Strobino, Riccardo	5 (2)	21 (6)	0
Adamson, Peter	4 (3)	37 (4)	1
Akdag, Ozcan	4 (3)	7 (7)	0

These 420 scientific documents for our study composed by 400 authors and 26 of them are shown in Figure 5, due to we setting 3 as a minimum number of documents for each author. As can be seen, we cannot see link between authors except Benevich, Fedor and Adamson, Peter.

¹ The most cited Adamson's research is "The Thought Experimental Method: Avicenna's Flying Man Argument" (Adamson& Benevich, 2018). The most cited Chatti's research is " EXISTENTIAL IMPORT IN AVICENNA'S MODAL LOGIC (Chatti, 2016). The most cited Janos's research is "Avicenna on the Ontology of Pure Quiddity". The most citations of Akdag's research is "The Image of Ghazali in 19th Century Europe", and the cited article by Di Vincenzo (2017) is " Is There a versio vulgata of Avicenna's Kitab al-Sifa? On the Hypothesis of a Double Recension of Kitab al-Madhal".

**Figure 5.**

Analyzing Citations

Among 420 documents, 97 documents have minimum 5 citations and the list of top 10 most cited documents is shown in Table 4.

Table 4.

Documents	Citations
Gutas (2012)	57
Black (2008)	41
Wisnovsky (2013)	39
Bertolacci (2012)	37
Freudenthal& Zonta (2012)	32
Pormann (2013)	29
Rashed (2009)	29
Wood& Weisberg (2004)	28
Black (2013)	27
Ibrahim (2013)	24

Based on Figure 5, some documents are link together, while many documents such as those scientific documents conducted by Wood& Weisberg (2004) and Ibrahim (2013) which mentioned in table as the top 10 according to citations have no links.

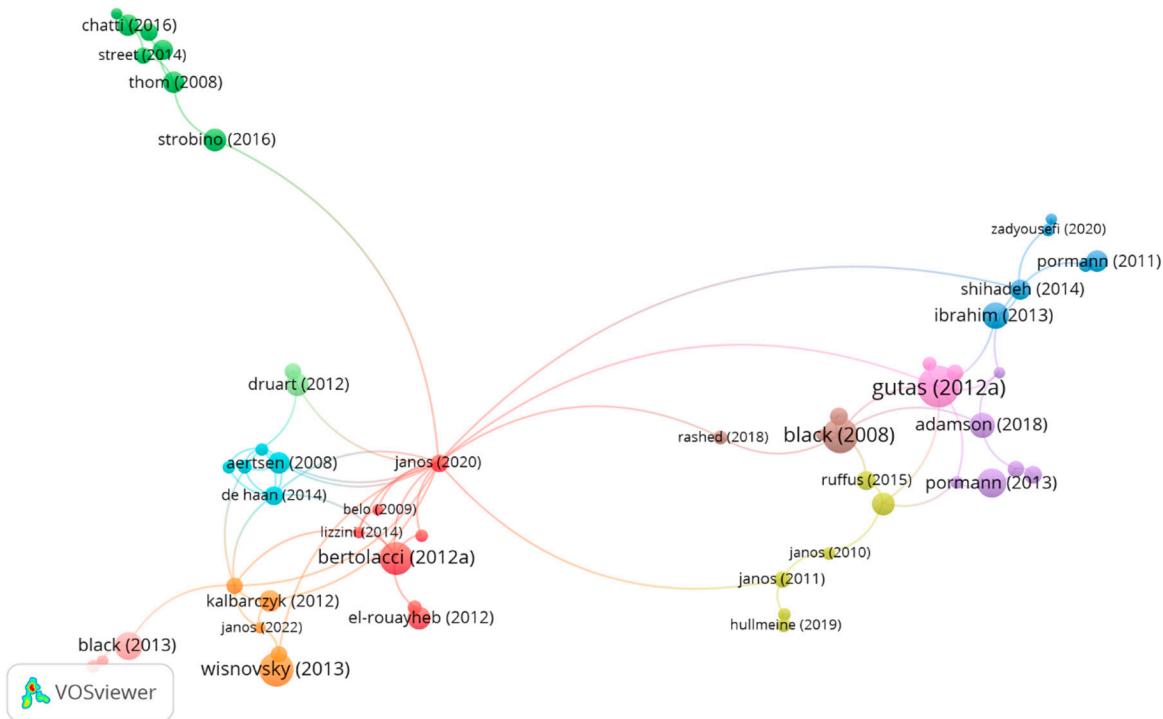


Figure 5

Analyzing Keywords

Among 1140 keywords, 102 of them were repeated minimum 3 times, and top 10 keywords based on number of occurrences and TLS are provided in Table 5. In addition to "Avicenna" and "Ibn Sina" as two top keywords according to both occurrences and TLS, "Philosophy" and "Aristotle" are the third and fourth respectively according to occurrences and both of them have 100 TLS. Both "Metaphysics" and "Islamic Philosophy" are the same in number of occurrences (32), but Metaphysics' TLS is 107 and Islamic Philosophy's TLS is 66. Logic, has been appeared 26 times with 51 link strength. It should be noted that, "Existence" and "Essence" appeared 23 times with TLS 95 and 90 Respectively. It can be claimed that these two keywords play a fundamental role in Avicenna's philosophy. Finally, "Al-Ghazali" appeared 16 times and have 48 TLS.

Table 5.

Keywords	Occurrences (R)	TLS (R)
Avicenna	139 (1)	337 (1)
Ibn Sina	45 (2)	111 (2)
Philosophy	34 (3)	100 (3)
Aristotle	33 (4)	100 (3)
Metaphysics	32 (5)	107 (4)
Islamic Philosophy	32 (6)	66 (7)
Logic	26 (7)	51 (8)
Existence	23 (8)	95 (5)
Essence	23 (8)	90 (6)
Al-Ghazali	16 (9)	48 (9)

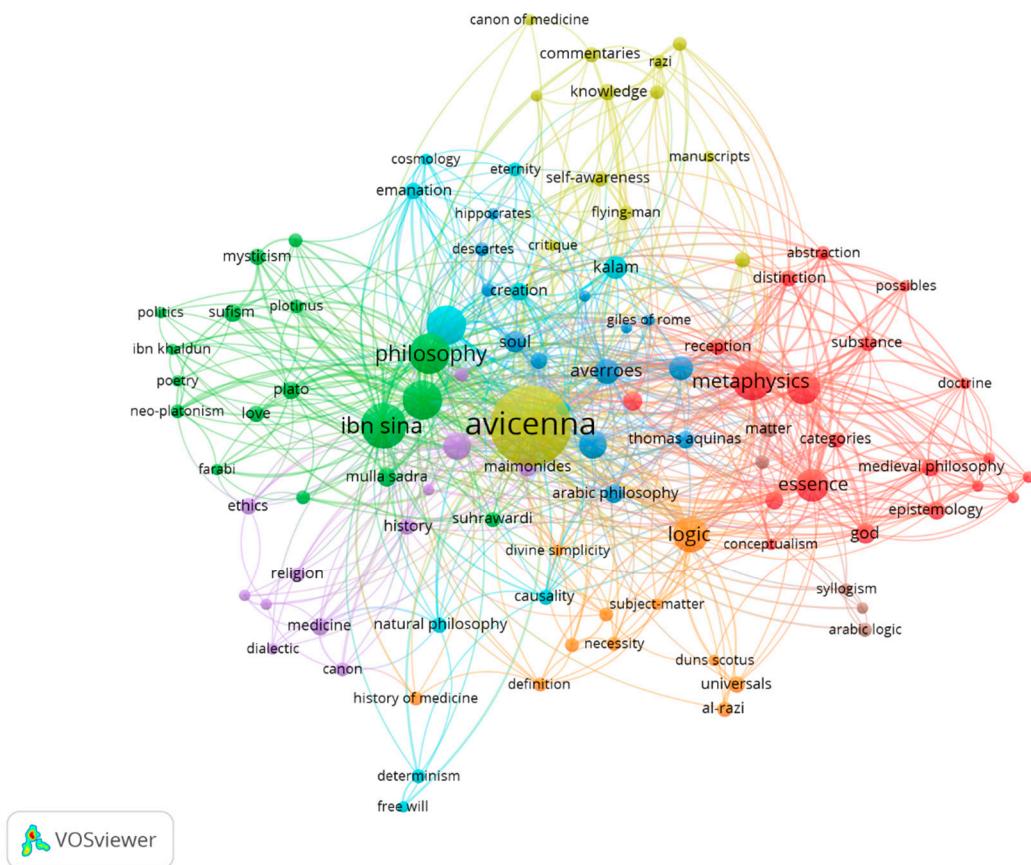


Figure 6.

All 102 keywords are displayed in this map, and if we think in this map, we can claim that the summary of Avicenna's philosophy (of course, what is known so far) is known in this map. As can be seen, the keyword of "Avicenna" is in the center of the map and it is very bold. In addition to this, the keyword of "Ibn Sina", "Philosophy", and "Metaphysics" are bold. The name of many related philosophers and scholars can be observed in this map such as "Plato", "Farabi", "Al-Razi", "Suhrawardi", "Mulla Sadra", "Averroes", "Thomas Aquinas", and "Descartes". Furthermore, many fundamental concepts as keywords can be seen like "Knowledge", "Necessity", "Essence", "Soul", "Flying-Man".

Limitations and Recommendations

According to the studies that have been done about Avicenna's philosophy, it can be claimed that most researchers focus on Avicenna's natural sciences, Avicenna's psychology, Avicenna's theology and ontology, and Avicenna's logic and epistemology. It can be said that these issues should be seen from other angles, i.e. the angles that lead us to his independent intellectual systems. In addition, extracting concepts related to ethics and practical wisdom from Avicenna's philosophy is one of the issues that have been neglected, and compared to the issues mentioned, less research has been done on it and there are more studies to be done.

Conclusion

Based on 420 documents extracted from Web of Science Core Collection, most of them are in the category of philosophy and then in religion, and 89% of all documents are in articles categories among other types (book chapters and review articles). It should be noted that the vast majority of studies (339 documents) are English. The number of publication have been increased in the last two years. In

addition, analyzing active countries, analyzing active journals, analyzing active authors, analyzing citations, analyzing keywords were analyzed by VOSviewer. According to active countries, Turkey, USA, and England were the most active countries, and the USA was the first place in number of citations, and England was the first place in link with other countries. According to active journals, *Oriens* was the first and *Arabic Sciences and Philosophy* was the second, and *Nazariyat* was the third place according to number of documents. In addition to number of documents, two journals of *Oriens* and *Arabic Sciences and Philosophy* also were the first and second respectively according to number of citations. According to the active authors, Fedor Benevich was the active author with 8 publications, and Gad Freudenthal was the first according to number of citations with 60 citations. The top documents were also mentioned in terms of citations, and it should be said that these documents are mostly related to the years 2012 and 2013. According to keywords, "Avicenna", "Ibn Sina", "Philosophy", and "Aristotle" were the top with TLS over 100 and over 100. In addition to these results, it can be claimed that most of the studies that have been done about Avicenna's philosophy have been related to Avicenna's natural sciences, Avicenna's psychology, Avicenna's ontology, and Avicenna's logic and epistemology, while, many concepts related to ethics and practical wisdom are also found in Avicenna's philosophy. Furthermore, the issues related to Avicenna's natural science and theology should be examined from an angle that brings us to his philosophical school.

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