EXPLORATORY RESEARCH ON ZAKAT: A TOPIC MODELING STUDY

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Abstract: *Zakat published articles has been increasing consistently. Such an abundant availability of knowledge warrants for investigation looking into bibliometric characteristics of a specific area. The objective of this study is to present the research trend of zakat. This study adopted a bibliometric analysis based on 318 documents obtained from the Scopus database. To achieve the objectives of the study, various tools have been employed, such as Harzing's Publish or Perish, VOSviewer, and Microsoft Excel. This study presents the results using standard bibliometric indicators. Finally, this study extends findings on zakat literature buy using bibliometric approach and provide meaningful insights on the trend of previous literature.*

Keywords: *Zakat, Zakah, Latent Dirichlet Allocation (LDA)*

INTRODUCTION

The objective of this study is to explore the research related to Zakat as indexed by SCOPUS. Specifically, this study explores common keywords and identified themes based on title and abstract of published articles. The objectives of the present study are:

1. To examine the publication trends related to Zakat;
2. To identify the top cited articles related to Zakat;
3. To identify ten topics based on the abstract of articles related to Zakat.

This study applied bibliometric approach to gather data on the productivity and research publications of research related to Zakat. The research published were searched and retrieved from Scopus in December 2021. Search on SCOPUS keyword based on the terms "zakat OR zakah" yielded 318 articles. This study only includes journal articles written in English published up to 2020.

The metadata of all 318 articles downloaded in CSV format. The framework consists of three steps: pre-processing, topic modelling, and post-processing. All three steps were conducted based on Python codes within a Jupyter Notebook environment. Latent Dirichlet Allocation (LDA) algorithm was utilized to generate 10 topics.

RESULT AND DISCUSSION

Publication Trend

Figure 1 presents the publication trend on Zakat from 1991 to 2020. The number of publications significantly increased in the last ten years of the studied duration. A dramatic increase in the number of publications was observed after 2010. Figure 2 depicted number of publications by country.
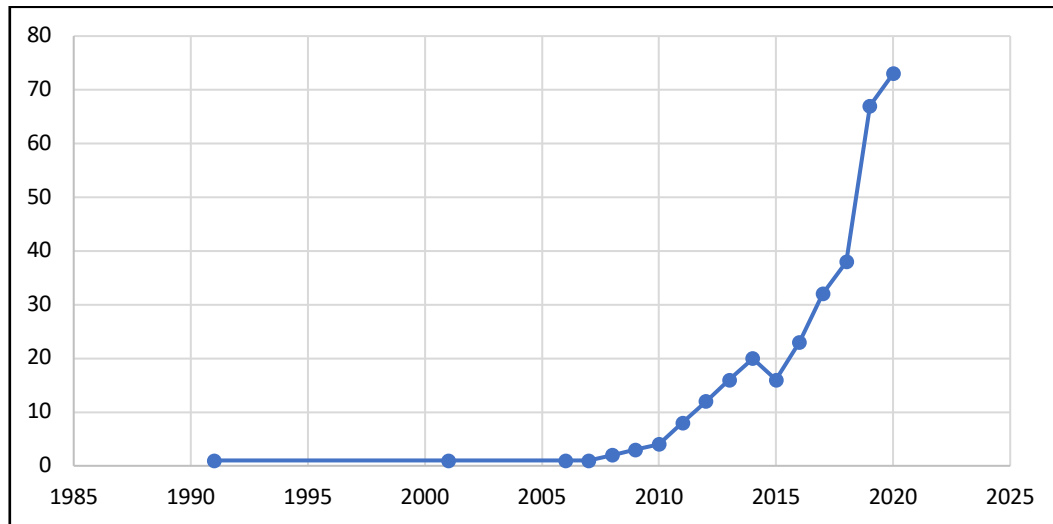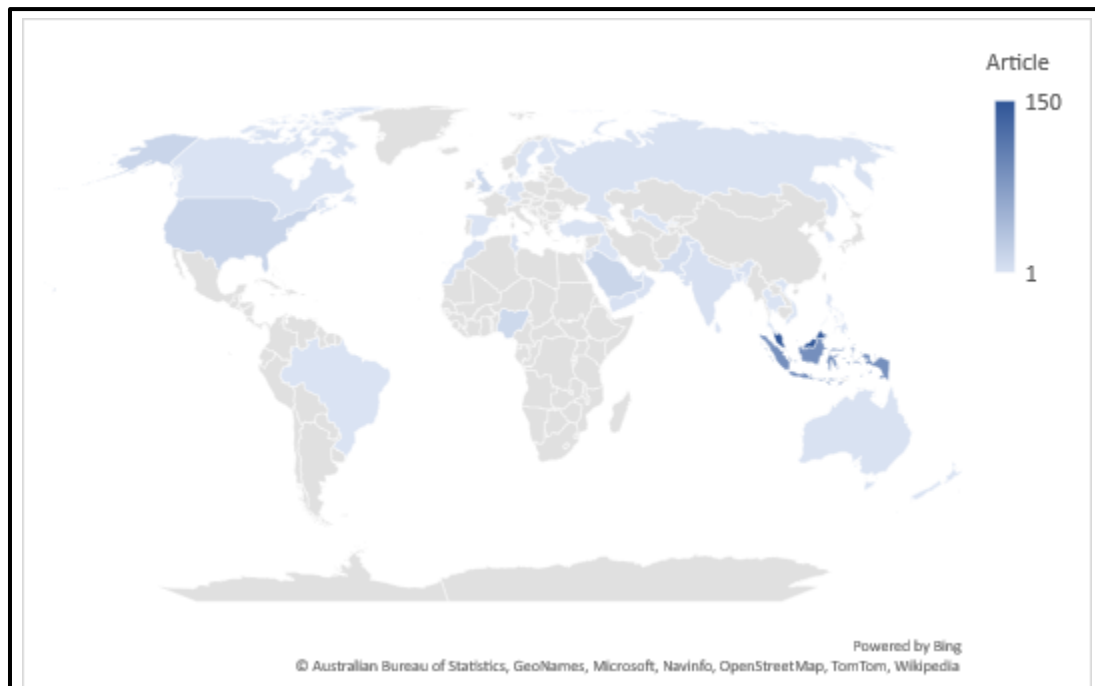

Figure 1. Publications Trend

Figure 2. Publications By Country

Top Cited Article

Citation is an important indicator for researcher. Therefore, it is important to understand the characteristic of highly cited articles. Table 1 lists top ten cited articles. Overall, the retrieved articles received 1538 citations, an average of 4.84 citations per article.

Table 1. Top Cited Article

Authors	Year	Cited by
Maali B., Casson P., Napier C.	2006	214
Kochuyt T.	2009	53
Buehler M.	2008	44
Fauzia A.	2013	43
Rosli M.R.B., Salamon H.B., Huda M.	2018	37
Vinnicombe T.	2010	31
Al Jaffri Saad R., Haniffa R.	2014	30
Ab Rahman A., Alias M.H., Omar S.M.N.S.	2012	29
Goby V.P., Nickerson C.	2016	26
Mohdali R., Pope J.	2014	25
Ali I., Hatta Z.A.	2014	24
Retsikas K.	2014	23
Yusuf M.-B.O., Derus A.M.	2013	23
Latief H.	2010	19
Syed M.H., Khan S., Rabbani M.R., Thalassinos Y.E.	2020	18
Lucas S.C.	2008	18
Javaid S., Al-Malkawi H.-A.N.	2018	17
Sohag K., Mahmud K.T., Alam F., Samargandi N.	2015	17
Lubis M., Azizah A.H.	2018	16
Embong M.R., Taha R., Nor M.N.M.	2013	16
Mesbahuddin T.	2010	16
Kuran T.	2013	15

Topic Modeling Based on LDA

The objective of this section is to highlight the most frequent topics discussed in the abstract of the extracted articles. Figure 2 and Figure 3 presents key terms for ten selected topics based on the title and abstract of the articles extracted by using LDA algorithm.
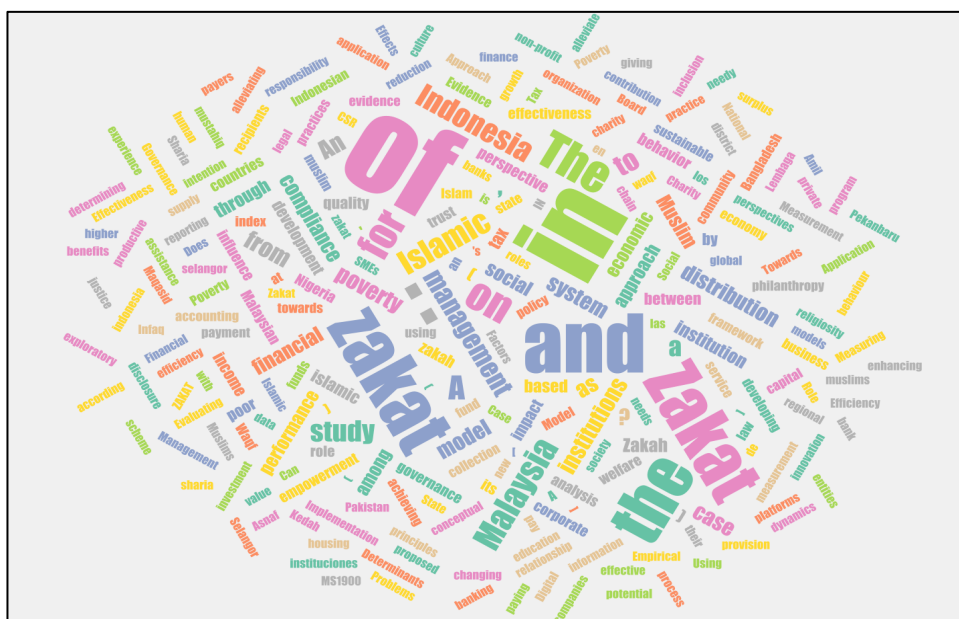
Figure 2. Word Cloud Based on Title of Articles

Figure 3. Word Cloud Based on Abstract of Titles

Analysis of The Title

This study analyzed the title for all 318 articles. Based on frequency, world cloud in Figure 3 provided visual representation of the words of the title. Furthermore, Table 2 lists 10 most frequent words based on appearances in the title of the articles.

Table 2. Keywords for Ten Topics (Title)

Topic	Keywords
1	Zakat, compliance, behavior, influence, tax, malaysia, income, zakah, factor, pay
2	Perspective, islamic, economic, zakah, zakat, accounting, growth, maqasid, effectiveness, financial
3	Zakat, indonesia, islamic, agency, sharia, model, management, aceh, national, organization
4	Zakat, distribution, role, selangor, development, asnaf, study, malaysia, lembaga, islamic
5	Zakat, system, management, indonesia, legal, study, islam, malaysia, view, economic
6	Zakat, system, recipient, poor, distribution, mustahiq, develop, wakaf, country, muslims
7	Zakat, social, welfare, tax, fund, method, capital, corporate, maslahah, zakāt
8	Zakat, institution, malaysia, financial, performance, islamic, quality, practice, model, evidence
9	Zakat, poverty, community, approach, indonesia, muslim, alleviate, management, empowerment, model
10	Muslim, zakat, charity, islamic, approach, framework, poor, contemporary, understand, economy

Analysis of The Abstract

In addition to the title, this study also analyzed the abstract of the 318 articles. Based on the frequency, word cloud in Figure 5 provided a visual representation of words in the abstracts. Moreover, Table 2 lists 10 most frequent words in the abstract of the articles.

Table 2. Keywords for Ten Topics (Abstract)

Topic	Keywords
1	Social, Islamic, Muslim, Practice, Charity, Article, Islam, Political, Religious, Charitable
2	Zakat, Poverty, Study, Intention, Behavior, Effect, Muslims, Index, Poor, Attitude
3	Zakat, Issue, Accounting, Islamic, Payment, Paper, Shariah, Base, Company, System
4	Zakat, Institution, Study, Distribution, Malaysia, Datum, Management, Fund, Collection, Asnaf
5	Paper, Financial, Social, Study, Zakat, Islamic, Recipient, Finding, Purpose, Institution
6	Zakah, Study, Islamic, Compliance, Bank, Zakat, Model, Finding, Influence, Social
7	Zakat, Management, Research, Study, Indonesia, Distribution, Collection, Institution, System, Datum
8	Zakat, Efficiency, Paper, Zakah, Islamic, Platform, Muslim, Yang, Calculation, Change
9	Islamic, Country, Poverty, Zakat, Economic, System, Development, Economy, Poor, Role
10	Zakat, Program, Distribution, Economic, Fund, Mustahiq, Education, Social, Increase, Poor

CONCLUSION

This bibliometric and topic modeling analysis of zakat research presented the research output and knowledge structure. However, the results of this study are affected by limitations that should be considered. First, only publications indexed in SCOPUS are included, and these may not sufficiently represent all the topics in zakat research. Analysis performed by this study did not include data extracted using other search engines, such as Web of Science or Google Scholar.

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