

RESEARCH AGENDA OF SHARIAH-COMPLIANT INVESTMENT USING BIBLIOMETRIC ANALYSIS R STUDIO

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ABSTRACT

Research in the financial industry is becoming more diverse as technology and financial investment products develop. Sharia concepts in financial investment products will be assessed in the context of current financial trends, challenges, and future market opportunities. This study aims to provide an overview of these three things using Systematic Literature Reviews of previous studies. This study's findings can inform future Sharia financial product studies and financial market stakeholders' policy and decision-making.

Keywords: Shariah Compliance Products; Systematic Literature Review; Bibliometrics; Co-word analysis

ABSTRAK

Penelitian di industri keuangan menjadi lebih beragam seiring dengan perkembangan teknologi dan produk investasi keuangan. Konsep syariah dalam produk investasi keuangan akan dikaji dalam konteks tren keuangan saat ini, tantangan, dan peluang pasar di masa depan. Studi ini bertujuan untuk memberikan gambaran mengenai ketiga hal tersebut dengan menggunakan Tinjauan Literatur Sistematis terhadap penelitian-penelitian sebelumnya. Temuan studi ini dapat menjadi bahan masukan bagi studi produk keuangan syariah di masa depan dan kebijakan serta pengambilan keputusan para pemangku kepentingan di pasar keuangan.

Kata kunci: Produk Kepatuhan Syariah; Tinjauan Literatur Sistematis; Bibliometrik; Analisis Co-word

INTRODUCTION

The public's more accessible access to financial products, aided by technological advancements, has led to increased financial products and the variety of financial access methods available, including a rapid increase in financial investment products over the past decade. According to research conducted by Rodrigues et al. (2016), there is a strong correlation between the rise in new investors and the availability of financial products. The concept of ease to access is also consistent with the concept of the Theory of Acceptance Model (TAM), which states that purchase intention and willingness to pay, in this case referring to the purchase of investment products, will

increase if the ease of purchase and payment is easier to access and use (Abdullah et al., 2018; Fan, 2022; Simba et al., 2023; Wahdain & Ahmad, 2015; Wicaksono et al., 2020).

In addition to technological adaptation factors that facilitate access, there are also factors or primary attributes in financial investment products, which are the Sharia factor, particularly in countries with a majority Muslim population (Grais, 2006). This Sharia factor ensures financial products comply with Sharia and Islamic law provisions. The four primary requirements for sharia-compliant financial investment products are the absence of *gharar* (uncertainty), *riba* (interest or usury), *maysir* (gambling), and the intent to invest in haram businesses or products that are not under the provisions of Islamic fiqh for buying and selling (Azhar Rosly, 2010; Bassens et al., 2011; Venardos, 2005). The concept of Shariah in financial investment is an intriguing aspect of the rapid development of financial investment products, regardless of whether it acts as a restriction, barrier, or stimulant to investment. Therefore, there is a need for research to examine the evolution of the concept of Sharia through the literature on financial products, including investments.

Based on empirical data, global Islamic finance assets grew by 14% year-over-year in 2019 to USD 2.88 trillion. Gulf Cooperation Council (GCC) Islamic finance assets reached USD 1.2 trillion in 2019, followed by MENA (excluding GCC) at USD 755 billion and Southeast Asia at USD 685 billion (Mordor Intelligence, 2021). The 14% increase in global Islamic finance industry assets can be partially attributed to increased Sukuk issuance in the traditional markets of the GCC and Southeast Asia. Green and SRI (socially responsible investment) Sukuk grew in prominence in the United Arab Emirates and Southeast Asia, and their popularity continued to increase in 2020 with the entry of new issuers like Saudi Electricity Co (Mordor Intelligence, 2021). However, an unforeseen event, COVID-19, disrupts Sukuk Investment's stability.

COVID-19 has significantly disrupted the global financial markets. The impact has similarly challenged the resilience of Islamic financial markets. Nonetheless, the global penetration of the Islamic finance sector over the past couple of decades has contributed significantly to the overall expansion. COVID-19 has accelerated digital adoption in Islamic finance, as evidenced by the issuance of new Sukuk in a few nations. In August 2020, for example, the Malaysian Ministry of Finance issued its first digital Sukuk. To attract the younger generation, Indonesia issued retail Sukuk worth USD 342

million and made it available online (Mordor Intelligence, 2021). In 2020, global issuances of Sukuk increased alongside consistent issuances from sovereigns to finance stimulus packages for pandemic-ravaged economies. In 2020, Indonesia, Malaysia, and Saudi Arabia accounted for over 66% of the global sovereign debt issuance. During the first three quarters of 2020, Sukuk issuances within the GCC gained significant traction as the decline in oil prices prompted an increase in sovereign issuances. As with other leading issuing sovereigns, the GCC's increased issuances were primarily to support the stimulus packages designed to mitigate the economic effects of COVID-19.

The impact of COVID-19 certainly changed the development trend of research topics before, during, and after the pandemic began to subside in Sharia financial investment products. Because there is a strong correlation between the state of global economic stability and the development of investment, therefore, this study aims to analyze the development of research on Sharia financial investment products to obtain topics that continue to develop and are still relevant to be discussed by academics for future research topics. In addition, the results of this research can be a source of decision-making for financial market stakeholders and policymakers in determining trend topics that occur globally.

There are several sections in writing this study. Starting from the background of this research, then the basic concepts used, which are discussed in the literature review, then the research methodology with systematic literature review, followed by analysis and discussion of research findings, recommendations from the research conducted, and finally, the limitations of the research and future study development.

LITERATURE REVIEW

Shariah concept on financial investment product

In Arabic, Shariah means "the clear, well-trodden path to water." It is the set of rules that Muslims must follow in every aspect of their lives, such as how they pray, consume, and handle their finances. Funds that adhere to shariah regulations are called Shariah-compliant funds in financial investment products. Some practices and principles used in conventional finance are rigorously prohibited under Sharia law. It is the primary distinction between conventional and Islamic finance (Azhar Rosly, 2010; Bassens et al., 2011; Venardos, 2005). Shariah-compliant investments are one of the numerous categories of socially responsible investments. Like other socially responsible

funds within the environmental, social, and governance (ESG) universe, these funds assess prospective portfolio investments for Islamic religious requirements.

To be classified as Shariah-compliant, the investment product must meet specific criteria. First, lending money in exchange for interest payments is considered a form of exploitation because it benefits the lender at the borrower's expense. In Sharia law, interest is deemed usury (*riba*), a prohibited form of lending (Costa & Hassan, 2020). Second, certain activities selling haram products, such as producing and selling alcoholic beverages and swine, are prohibited (Alam et al., 2017). These activities are considered haram, which means they are prohibited. Participation in these activities, including financial support, is therefore prohibited. Third, gambling, also known as *Maisir*, is a form of speculation rigorously prohibited by Sharia law. Consequently, Islamic financial institutions are prohibited from entering into contracts in which the ownership of commodities is contingent on an unforeseeable event in the future (Cattelan, 2009). Last is the *gharar*. Participation in contracts with an intolerable level of risk and/or uncertainty is prohibited by Islamic finance principles. The term *gharar* quantifies the permissible level of risk or uncertainty in financial transactions. *Gharar* is the practice of engaging in Islamic finance-prohibited activities like short selling and derivative contract trading (Cattelan, 2009).

These rules and considerations distinguish conventional investments from those that adhere to Shariah law. Among the categories of Shariah-compliant funds are Shariah-Compliant Equities, Islamic Bonds (Sukuk), Real Estate Investment Trusts (REITs), and several derivative investment category products whose product names vary by country.

RESEARCH METHODOLOGY

Method is a method of work that can be used to obtain something. While the research method can be interpreted as a work procedure in the research process, both in searching for data or disclosing existing phenomena (Zulkarnaen, W., et al., 2020:229).

Data Collection

This study retrieved data from ScienceDirect and Scopus databases to collect research articles for SLR analysis. Then a list of relevant keywords is made to search the relevant databases. Furthermore, literature filters for the last ten years, article types

in the form of research articles, and subject areas of business, management, and accounting were conducted.

The following table contains the terms used and the search terms combined to obtain related literature.

See The Table 3.1

From these results, relevant articles published in scientific journals that meet the criteria are obtained as the primary database. A Systematic Literature Review analysis from the journal data set will be carried out using the R Studio application using the bibliographic method with the biblioshiny tool.

Data Analysis – Systematic Literature Review

This research employs a systematic literature review (SLR) to analyze data from relevant articles on shariah-compliant funds. SLR is a rigorous and exhaustive method for identifying, assessing, and synthesizing existing research on a particular topic. It requires a methodical and predetermined approach to answer a research query or provide a field overview. The SLR method is intended to reduce bias and assure the validity and reliability of the findings (Higgins & Green, 2008; Kitchenham & Charters, 2007).

This study integrates and analyzes data from multiple studies on Shariah-compliant funds using meta-analysis. Meta-analysis effectively summarizes the evidence and derives more robust conclusions by integrating data from multiple studies. It facilitates the identification of patterns, trends, and consistency across studies and provides a quantitative measurement of the effect's magnitude and significance (Michael Borenstein et al., 2007). SLR necessitates the completion of several stages. Clearly define the research query or purpose of the review. Include publication date, study design, population, and the intervention or outcome of interest among the selection criteria. Create a thorough search strategy using the appropriate databases, keywords, and search operators to identify relevant studies. Screen the identified studies based on the inclusion and exclusion criteria, and extract vital information from the selected studies, such as study characteristics, methodology, findings, and quality assessment. Using standardized methods, assess the included studies' methodological quality and risk of bias and then analyze and synthesize their findings (Michael Borenstein et al., 2007).

The primary purpose of SLR is to provide a thorough and evidence-based summary of extant research on a specific topic. SLRs aid researchers and decision-makers in identifying research voids, prioritizing future research directions, and informing evidence-based decision-making in various fields. The analysis and procedure for SLR will be explained in the next chapter.

RESULT AND DISCUSSION

After identifying relevant keywords, 1261 relevant articles were retrieved and will be analyzed using SLR studio. Data is retrieved from ScienceDirect and Scopus databases containing reputable articles to obtain a general topic overview of the development of Sharia investment products. The number 1261 represents a sample of thousands of articles published in other journal databases. However, it is derived mainly from these two sources to maintain the results' quality. Table 4.1 summarizes the data from the literature review used as analytic material. *See The Table 4.1.*

The first analysis describes descriptively the general development of research and journals that contain the most topics related to Shariah financial investment. First, we look at writing development on related topics in Figure 4.1. *See The Figure 4.1.*

The annual scientific production graph shows that Shariah's financial investment research only began to develop in 2013. Then until 2022, the number of research in the Shariah financial investment field continues to increase. Furthermore, this is inseparable from the development of investment products and the openness of public participation in investing, thus increasing the enthusiasm for research on this topic. Furthermore, figure 4.2 displays the journals that publish the most topics related to Shariah financial investment. *See The Figure 4.2.*

Based on Figure 4.2, there is a list of 20 journals that contain Shariah financial investment. It can be seen that internationally in reputable journals, Sharia financial investment does not come from Islamic journals alone but has become increasingly discussed in general business and management journals. It means that the topic of the concept of Shariah in investment has been growing. In the future, this topic has a broader prospect because it is not only a matter of discussion in Islamic journals but a matter of discussion by academics and researchers in international journals that are not inclusive of groups but prioritize the development of knowledge on the Shariah concept. *See The Figure 4.3.*

Based on Figure 4.3, the most relevant authors are based on the number of articles relevant to shariah financial investment. Here is a summary of the total article produced by the ten researchers above.

The next step in the analysis involves examining the authors' keywords in the journal database. Analyzing author keywords in bibliometrics aims to shed light on individual authors' research interests and areas of concentration. It assists in identifying the principal topics and themes that authors actively contribute to within their field (Bornmann & Leydesdorff, 2014). Furthermore, author keyword analysis can improve literature retrieval and search optimization. By identifying and incorporating pertinent author keywords into search queries, researchers can improve the precision and recall of their literature searches, ensuring this analysis captures the most pertinent and recent publications in their area of interest (Bornmann & Leydesdorff, 2014). The author's keywords were analyzed using R (Aria & Cuccurullo, 2017), and the results are presented as a bar graph (figure 4.4), a word cloud (figure 4.5), and the development of the use of these keywords through the beginning of 2023 (figure 4.6).

See The Figure 4.4, See The Figure 4.5.

From the results of keyword analysis in the graph above, it can be categorized into two main parts, namely keywords that discuss subjects and countries. In keywords, the topics discussed are specific to the context of the development of Sharia financial investment in the country. Nevertheless, there are also emerging markets keywords, which means it focuses more on the context of developing countries that apply the concept of Sharia in financial investment products, such as Malaysia and Indonesia. Other topics in Figure 4.4 can be material for developing research on developing the conception of Sharia in financial investment. Next is an analysis of developing keyword trends on Shariah financial investment (figure 4.6). *See The Figure 4.6.*

Based on annual occurrences, word growth analysis reveals that the covid-19 keyword trend has increased significantly. It can cause a significant impact covid-19 on global financial investment. China also continues to grow and discuss Sharia-based investments. In addition, keywords associated with corporate social responsibility, entrepreneurship, innovation, emerging markets, corporate governance, and Islamic banks continue to increase and are developing topics until early 2023.

See *The Figure 4.7*. Next is a co-word analysis with a thematic map (figure 4.7). Co-word analysis involves identifying the frequency and co-occurrence of specific keywords or terms within a set of publications. The thematic map analysis provides a visual overview of the distribution and relationships between different research topics, helping researchers understand a particular domain's intellectual structure and content (Van Eck & Waltman, 2014). There are four quadrants in the thematic map based on relevance and development degree.

In the thematic area, quadrant motor themes comprise larger clusters with high connectivity frequently cited or discussed in published works. Core areas represent the central body of knowledge and serve as the underlying concepts or themes that drive advancing research and knowledge in the field. They are frequently connected to well-established theories, methodologies, or dominant research trends. The section shows that the blockchain, Islamic banks, and religion are still emerging topics for Shariah-compliant financial investment.

Meanwhile, corporate governance, entrepreneurship, and corporate social responsibility occupy the basic and motor theme quadrants. The basic area theme represents the fundamental building blocks of knowledge and serves as the foundation for further investigation and exploration. Indeed, these discussion topics serve as a foundation for developing topics relating to the concept of Sharia in financial investment.

The following section divides niche themes into three major categories: covid, economic growth, and financial inclusion. Niche themes are depicted as smaller clusters on the map and represent specialized subfields or specific research interests that may have limited coverage or visibility compared to broader research themes. Researchers interested in exploring novel research opportunities or focusing on specialized subdomains within a field can benefit from specializing in niche areas.

Lastly, there are emerging and clining themes, including Africa and innovation. These regions are represented by smaller clusters that initially may have fewer connections but exhibit a growing presence and significance in literature. The research topics in this section are no longer very relevant because they lack connections to topics pertinent to the current discussion. In addition, this analysis includes the evolution

theme map for shariah investment in financial markets (Figures 4.8 and 4.9). *See The Figure 4.8, See The Figure 4.9.*

The relationship between thematic maps and thematic evolution is the capacity to monitor the continuity and change of research themes over time. Thematic maps visually represent the current state, whereas thematic evolution analysis adds a temporal dimension, enabling researchers to identify patterns, trends, and shifts in research emphasis. Thematic evolution analysis can reveal research themes' emergence, growth, decline, and transformation over time. It can identify the emergence of new subfields, the decline of older areas, and the emergence of interdisciplinary partnerships. Researchers can understand the factors that have shaped the intellectual landscape of a field by analyzing historical, thematic maps (Chen, 2017; Van Eck & Waltman, 2014).

The thematic evolution of the first time series of the article database is depicted in Figure 4.8. Examining the distribution and relationships of research topics or themes at the initial point constitutes the first step of thematic evolution in time series 1. It assists in identifying existing themes, clusters, and their interrelationships during the specified period. It provides a foundational understanding of the current research landscape.

Figure 4.9 depicts the thematic development of the second time series. Thematic evolution in time series 2 focuses on analyzing the changes between time series one and two in the prevalence and relationships of research topics or themes. Researchers can observe the shifts, emergence, disappearance, growth, or decline of various themes and their interrelationships over time by comparing thematic maps or analyses from both periods.

By combining the findings from thematic maps and thematic evolution analysis, researchers can comprehensively understand a research field's evolution, dynamics, and future directions, facilitating strategic decision-making, identifying research opportunities, and fostering interdisciplinary collaborations.

CONCLUSION

Based on the findings of this study, it was determined that the research development on shariah financial investment began in 2013 and will continue to increase until 2023. As a result of the Covid-19 pandemic, the direction of research has shifted. Islamic banks, corporate governance, blockchain, entrepreneurship, corporate

social responsibility, and religion are the primary subjects of shariah investment research, as determined by co-word and occurrence analysis. The thematic evolution map also shows that topics related to digitalization and SMEs in financial shariah investment have evolved into derivative and specialized topics.

This study's findings could be a starting point for developing research topics on Sharia-based financial investments in management and business. In addition, policymakers in the financial sector, including the government and financial institutions, can use the findings of this study as a basis for discussion in the context of Sharia policies in financial product development.

This study is limited in providing more specific and exhaustive data regarding literature recommendations on each topic that arises in the study of Sharia financial investment. Future studies can provide a more comprehensive and detailed presentation of SLR and formulate several context-specific study topics to facilitate the development of studies on creating Sharia-based investment products. It is recommended that future research will use the findings of this study to search for relevant literature on Sharia financial investment products.

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APPENDIX

Lists of tables

Table 3.1 Keywords and Similar Terms for Database Search

No	Keywords	Database		Total
		ScienceDirect	Scopus	
1	"Shariah-compliant funds"	9	6	15
2	"shariah" AND "financial product"	31	35	66
3	"Islamic" AND "financial product"	104	78	182
4	"shariah" AND "investment" AND "finance"	102	63	165
5	"Islamic" AND "investment" AND "finance"	912	167	1079
6	"sukuk"	60	165	225
7	Total Article from 1 to 6	1218	514	1732
8	Total Articles from two database	1732		
9	Filtering and checking the same article from two databases and missing information	1261		

(Source: Author Document)

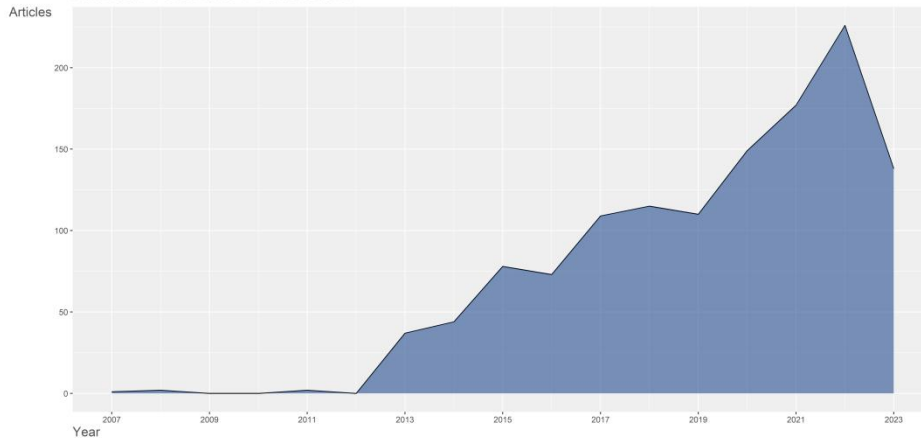
Table 4.1 Main Information for Bibliometric Analysis

Description	Results
Timespan	2007:2023
Sources (Journals, Books, etc.)	214
Documents	1261
Average years from publication	3.7
Author's Keywords (DE)	3154
Authors	3080
Author Appearances	3744
Authors of single-authored documents	155
Authors of multi-authored documents	2925
AUTHORS COLLABORATION	
Single-authored documents	164
Documents per Author	0.409
Authors per Document	2.44
Co-Authors per Documents	2.97
Collaboration Index	2.67

(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

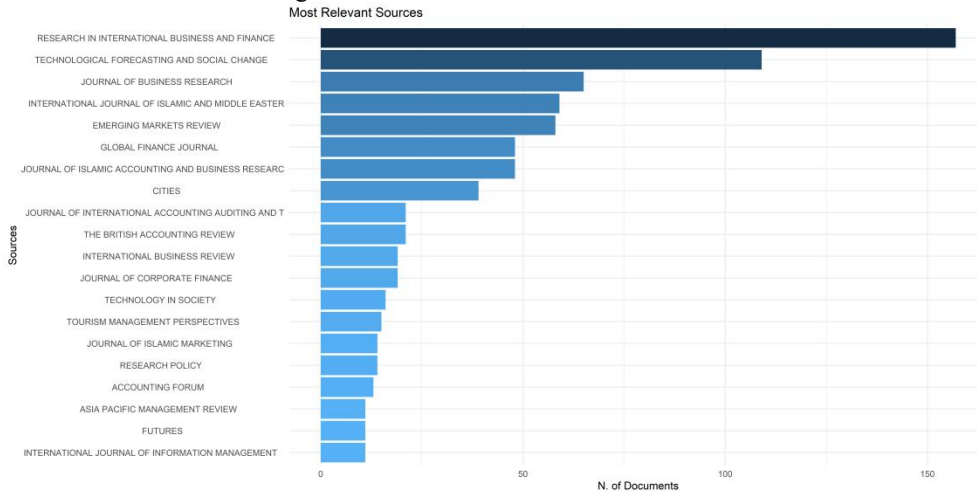
Lists of figures

Figure 4.1 Annual Scientific Production Graph
 Annual Scientific Production



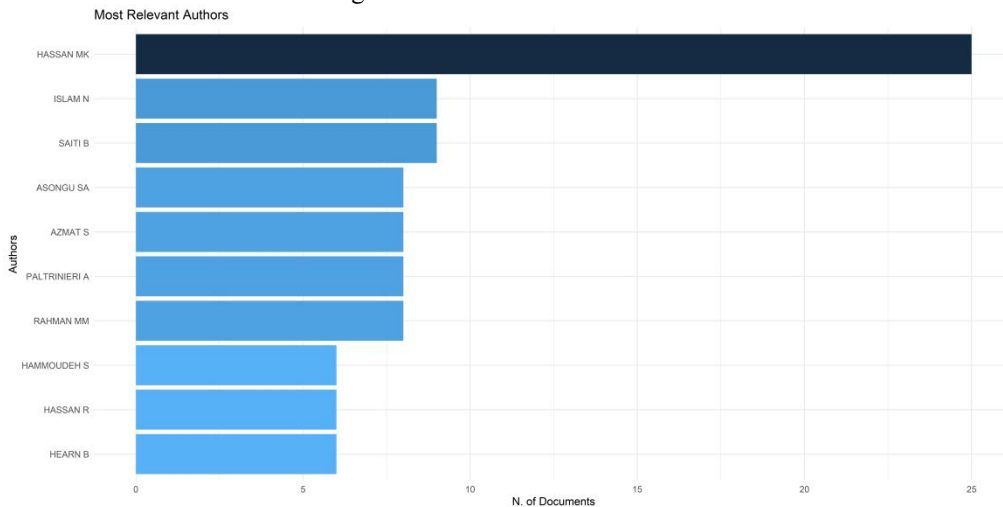
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.2 Most Relevant Journal Sources



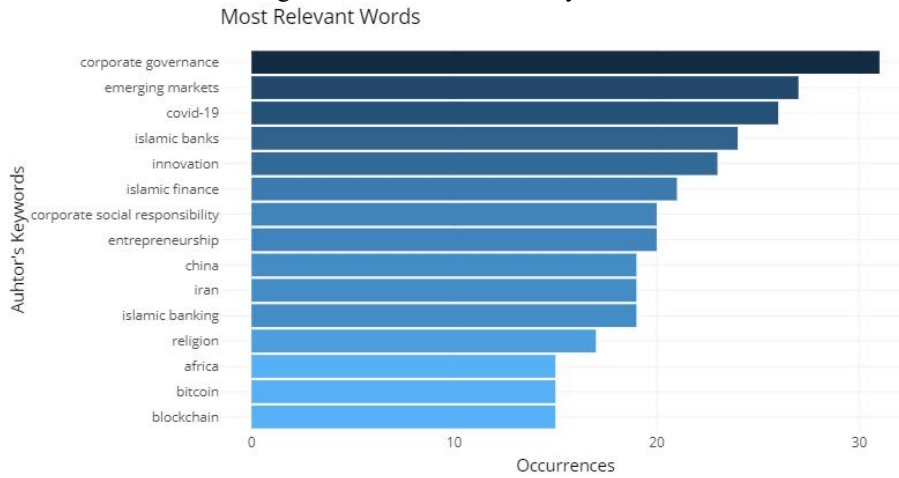
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.3 Most Relevant Authors



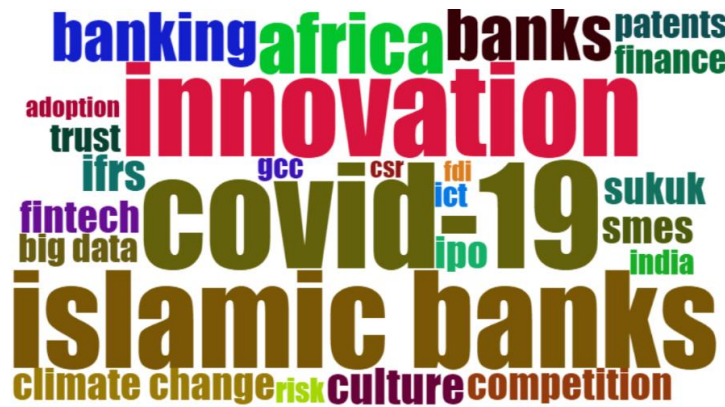
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.4 Most Relevant Keywords



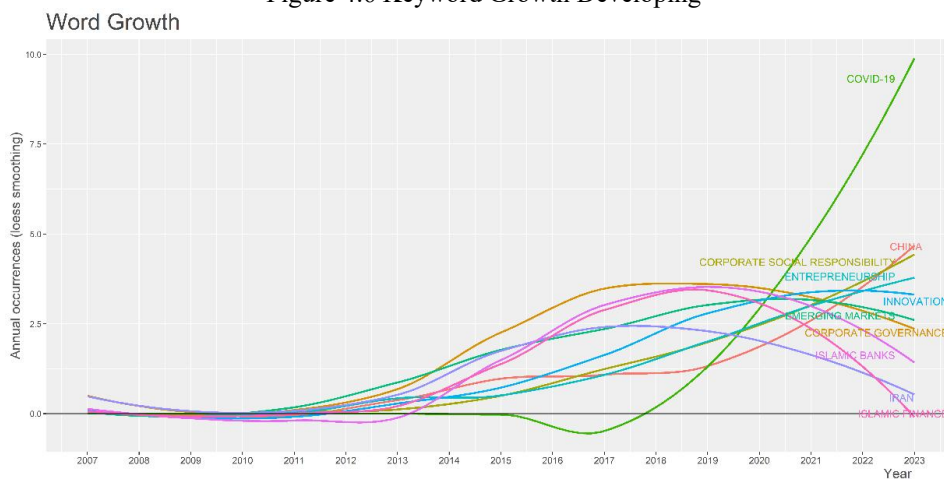
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.5 Word Cloud Relevant Keywords



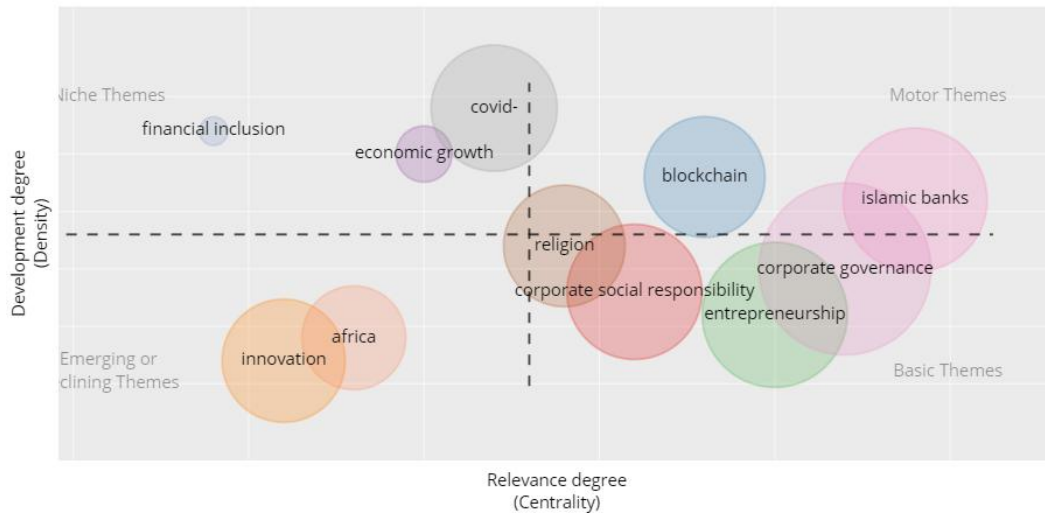
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.6 Keyword Growth Developing



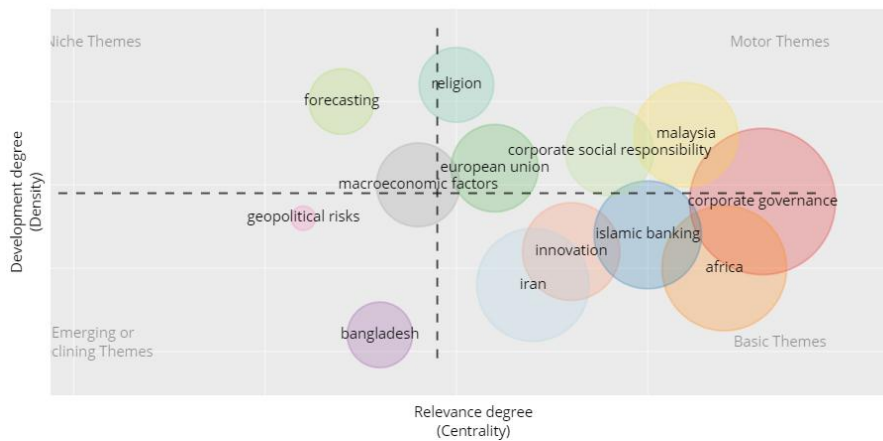
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.7 Thematic Map in General Keyword



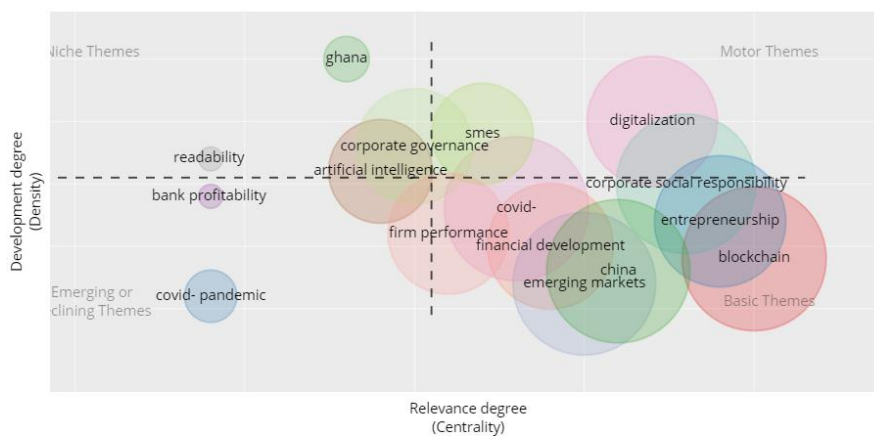
(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.8 Thematic Map Evolution Time Series 1



(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))

Figure 4.9 Thematic Evolution Map Time Series 2



(Source: R Studio Biblioshiny (Aria & Cuccurullo, 2017))