Exploring sustainability from the Islamic finance perspective

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Abstract— **The article explores a sample of papers on Islamic finance and sustainability to define some streams of literature on this topic. The paper aims to validate whether it is possible to interpret the multitude of contributions in three different research streams that consider environmental, economic, and social sustainability. The research conducts a structured literature review on 73 articles extracted from Scopus. Additionally, the bibliometric analysis revealed the descriptive statistics on this field and the main themes through the authors' keywords. The different perspectives showed the multicultural nature of the topic, which is not only addressed by Islamic countries. Moreover, it made it possible to find correspondence in the theorization underlying the article and to categorize the topics covered by the authors.**

Keywords: Islamic finance, Sustainability, Environmental Sustainability, Economic sustainability, Social sustainability, Literature review, Bibliometric analysis

I. Introduction

The Islamic banking system is based on notions of social virtue, good governance, care for the environment and ethical behaviour of individuals and organisations by Islamic ontological and epistemological principles [1], [2]. The rules of Islamic finance guide the Islamic banking and financial system and are known as Shariah principles, or Maqasid al-Shariah [3], [4]. According to Saeed et al. (2020) [5], the basis of these rules is two fundamental concepts that separate Islamic banking from conventional banking: profit and loss sharing, prohibition of interest and other prohibited elements. Indeed, the literature considers Islamic finance a parallel system that allows greater understanding and experience of the conventional financial system [6]. Therefore, the long-term growth and sustainability of the sector depend, on the one hand, on how Islamic finance interacts with the conventional system and benefits from complementing and augmenting it. On the other hand, Islamic finance adapts and adheres to international rules and supervision while remaining aligned with the complexities and subtleties of Islamic finance products and associated risks. As a result, the unique qualities of Islamic finance through the proper flexibility and without sacrificing shariah principles, the focus on sustainability appears crucial for the growth of the industry and a hopeful future.

According to Keeble (1988) [7], sustainability is a process of economic development, environmental protection and social equality. Mainly, sustainability is also defined as the method by which companies manage the financial risk, environmental risk, and social risk of business, as well as their duties and possibilities. Thus, sustainability has three main economic, environmental, and social components.

The sustainability disclosure percentage of Islamic banks in South-East Asia was only 26% [8]. Furthermore, other authors [9] found that in the United Arab Emirates, sustainability disclosure of Islamic banks was relatively low compared to conventional banks. Further studies explored 91 Islamic institutions in 13 countries, revealing that Islamic banks paid less attention to sustainability practices and disclosure [10]. Moreover, Dhuizii [11] investigated 14 Islamic banks from 14 countries for poor sustainability and disclosure practices. In addition, literature has shown that sustainability policies and disclosure of Islamic banks in seven Muslim nations are not the main issues for Islamic banks in those countries [12].

In terms of sustainability, Islamic banks use two primary models in their banking operations: institutional and welfare methods. According to Mansour et al. (2020) [13], the institutional approach increases the bank's stakeholders' wealth. The well-being approach seeks to achieve Maqasid Al-Sharia by improving people's well-being. Therefore, as a result, it is possible to say that sustainability is related and vital to the concept of Islamic banking.

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The United Nations brought attention to sustainability globally by introducing the Sustainable Development Goals (SDGs) [14]. The 17 measures to promote sustainable development provide an excellent opportunity to encompass many areas of sustainable development research. Furthermore, the United Nations and its member countries' commitment to achieving the SDGs by 2030 has added a sense of urgency to the need to do quality research on sustainability, providing valuable results for managers and policymakers [15].

Following Salam Gateway's report [16], the Islamic financial system has grown tremendously over the past four decades. It is currently considered one of the fastest-growing segments of the global financial system. The $2.2 trillion global Islamic finance sector is expected to grow 10%-12% over the 2021-2022 period, driven by increased Islamic bond issuance and a modest economic recovery in key Islamic finance markets. Research by Jan et al. [17] found that Iran, Saudi Arabia, Malaysia, United Arab Emirates, Kuwait and Qatar are the leaders in the Islamic banking market, holding around 85% of the world's Islamic banking assets. Turkey, Indonesia, Bangladesh, and Pakistan are the second-largest Islamic banking nations globally. While Brunei, Egypt, Oman, Bahrain, and Sudan are the nations with the smallest percentage of the global Islamic banking industry.

According to Jan, et al. [18], the link between sustainability practices and financial performance from an Islamic perspective in Malaysia from 2008 to 2017, and the results revealed that sustainability practices had a strong positive association with the financial performance of Islamic banks. Furthermore, the low incidence of sustainability practices and reporting in the Islamic banking sector is most likely due to a lack of sustainability literature in the Islamic banking sector and inadequate frameworks to measure activities. Therefore, this study aims to investigate Islamic finance from a sustainability perspective through a bibliometric analysis to define key research streams through keyword analysis and topic dendrogram. Additionally, it explores relationships between authors dealing with Islamic finance and sustainability from a geographical perspective.

A bibliometric analysis of the existing literature makes it possible to determine a business model's characteristics and basic features, whether it is related to production or service delivery [19]. Furthermore, the lower riskiness of Islamic banks compared to conventional banks is due to the absence of interest from the Islamic banking sector [20], [21]. Although there are bibliometric analyses that define Islamic finance and sustainable development [22], sustainability in social finance [23], [24] and mapping WAQF research [25], none of these research defining it considering three components such as economic, environmental and social perspective [7]. Therefore, our study aims to answer the following research questions:

RQ1. What is the descriptive bibliometric information on Islamic finance and sustainability publications?

RQ2. When analyzed from an economic, environmental, and social perspective, what elements do the keywords highlight?

We followed rigorous scientific research processes [26], [27] to achieve our research intent.. The method used was a structured literature review (SLR), which allows for a thorough and reliable analysis of the topic in question and identifies future advances [28]. Only articles published in peer-reviewed journals and written in English were considered, resulting in a final pool of 73 articles. The authors employed Bibliometrix, a statistical software accessible on R-Studio, to analyse [29].

This study shows the trends of Islamic finance and sustainability publications through a rigorous methodology, which will be explained in the next section. After that, the quantitative and qualitative results of the bibliometric analysis and discussion considering the literature will be shown. Finally, the conclusion will bring our research to a close.

II. METHODOLOGY

The research is based on strict methodological steps to ensure a rigorous method [26], [27]. According to numerous authors, our choice is to follow a Structured Literature Review (SLR) through a detailed and reliable examination of knowledge in the study domain, which allows us to define flourishing fields of future research [26], [28]. The technique has benefited from several combined bibliometric analysis studies [30]. The authors coded the documents manually and independently to classify the units of the research study in the selected articles, enhancing the results [31], [32]. Several researchers already use the SLR methodology since its publication. Despite its origins in the accounting field, analyses have been conducted in the broader management field due to its consistent research process [24], [32].

Therefore, our research started by searching for the title, abstract and keywords containing "Islamic finance" and "Sustainability" on the Scopus database. According to Oakleaf [33], the database includes papers indexed and ranked by the Institute for Scientific Information and Scopus. Considering only articles published in peer-reviewed, English-language journals or books [34], the authors set a limitation obtaining 81 results. Subsequently, only papers in the fields of economics, econometrics and finance, economics, management and accounting and social sciences were considered relevant. The final selection of papers includes 73 results, which will be the subject of the analysis.

The second stage of the study involved using the open-source statistical tool R [29] to analyse Islamic financing in terms of sustainability [35]. Creating the .bib file for the third phase, data analysis, was part of the data collecting procedure. The researchers used R software and bibliometrix scripts to do a descriptive bibliometric analysis and generate a matrix that included all documents throughout this period. Biblioshiny was also utilised to generate a concept map and citation network. The data reduction technique was used to visualise the knowledge structure during the analysis [25]. Fourth, the code analysis enabled academics to validate the Scopus results. Furthermore, researchers defined the structured course of investigation by utilising the research questions. The analysis will be divided into two parts: Descriptive analysis to analyse author structure and thematic analysis using the topic dendrogram. Finally, as advised in step five, we will discuss

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the results, provide theoretical and practical implications, limitations of our research, and future study directions in the following paragraphs.

III. FINDINGS

The study's bibliometric method can assist readers in swiftly identifying the fundamental aspects of the research area and answering research questions in a complete and trustworthy manner using quantitative and qualitative variables [32].

This paragraph seeks to answer the research question by providing information on various factors derived from descriptive statistics of the paper sample generated by the research key specified in the methodology. First, the different paper types and the annual scientific output are displayed. Following that, the survey considered scientific sources and the number of publications published by each author. The geographical relationships are intended to highlight the countries where the topic is most discussed and international partnerships amongst experts. In addition, the study counts the number of citations to comprehend the critical contributions recognised in the literature. Finally, this section explores the principal themes addressed by research on Islamic finance and sustainability using keywords and a dendrogram of subjects from the three perspectives established by the literature: economic, environmental, and social [7].

A. Descriptive bibliometric analysis

Table I shows the information about 73 papers published between 2010 and 2021, as taken from the Scopus database. Moreover, this section aims to address the first research question.

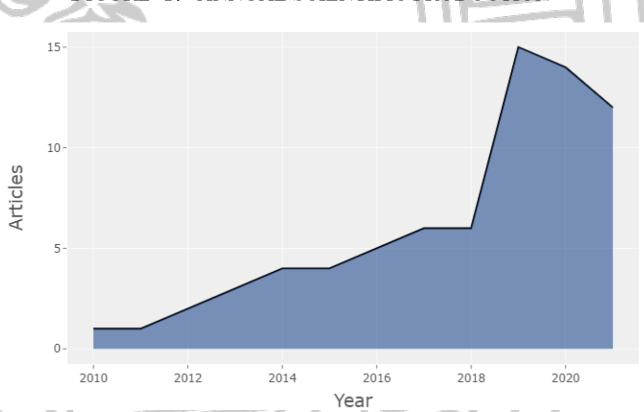
TABLE I. MAIN INFORMATION

Main information	*Explanation*	*Results*
Documents	Total number of documents	73
Sources	The frequency distribution of sources as journals	148
Author's Keywords	Total number of keywords	228
Keywords Plus (ID)	Total number of phrases that frequently appear in the title of an article's references	58
Period	Years of publication	2010-2021
Authors	Total number of authors	158
Author Appearances	The authors' frequency distribution	178
Authors of single-authored documents	The number of single authors per articles	19
Authors of multi-authored documents	The number of authors of multi-authored articles	139
Average citations per document	The average number of citations in each article	4,42
Co-Authors per Documents	The average number of co-authors in each document	2,44
Authors per Document	The average number of authors in each document	2,16
Collaboration Index	-	2,62

The number of keywords used exceeds the number of papers by three to one. At the same time, the number of keywords plus, which is the number of keywords that frequently appear in the title of an article, is lower than the number of sources, indicating consistency in the main subject examined. The first results of the analysis can be identified in 2010. However, the trend is gradually increasing, demonstrating the focus on the topic since 2018. Two authors wrote each article on average (2.16). Finally, the collaboration index (CI) is 2.62, calculated as the total number of authors of articles with multiple authors divided by the total number of articles with multiple authors [36]. Our research examined 73 articles from peer-reviewed scientific journals, books, book chapters and conference proceedings.

In 2010, the initial aim of the literature on Islamic finance and sustainability was to provide a perspective of unity between monetary, financial and real economy variables [37]. Subsequently, scholars have focused on the financial crisis that occurred after 2008 [38] and the growth of Islamic finance [39] and sustainable development alongside conventional finance [40]. In the central part of the observation period, the literature inquired about how Islamic finance is growing, complementing, and sometimes replacing its spiritual components [41]. Authors have focused on how socially responsible investments and the growing importance of Islamic finance are linked to the shift to renewable energy [42]. In addition, stakeholder perceptions of Islamic banks' corporate social responsibility were explored [43].

FIGURE 1. ANNUAL SCIENTIFIC PRODUCTION



The growth of literature on the subject has gone hand in hand with the increase in Islamic bank financing. Nowadays, the literature on the topic focuses on how Islamic finance can support businesses that pursue a circular economy model [44] to achieve growth that does not harm the environment [45]. Other studies have focused on how Islamic finance can convert its business model into ethical finance [46], [47]. Conversion presupposes positive employee attitudes and a willingness to adopt the green banking approach.

Table II shows the reference journals and the number of publications in each. In particular, the frequency with which papers dealing with the topic and related concerns are distributed is described. Journal of Islamic Accounting and business research and ISRA Journal are the two journals that have received the most attention to this topic in recent years. The former provides a dynamic forum for promoting accounting and business knowledge based on Islamic

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principles, intending to influence the welfare of societies around the world favourably. The JIABR encourages innovative contributions in accounting, economics, marketing, Sharia governance, Islamic banking and finance, and publishes publications that promote responsibility, socio-economic equity and eternal success. The ISRA Journal ensures that published articles in Islamic finance meet high standards, guaranteeing that additional innovation and research are carried out and encouraged in the Islamic finance sector and academia.

TABLE II. JOURNALS FOR ISLAMIC FINANCE AND SUSTAINABILITY.

Sources	***Articles***
ISRA International Journal of Islamic Finance	5
Journal of Islamic Accounting and Business Research	4
Al-Shajarah	3
Energy and Finance: Sustainability in The Energy Industry	3
Journal of King Abdulaziz University Islamic Economics	3
Sustainability (Switzerland)	3
Arab Law Quarterly	2
Corporate Sustainability: Inclusive Business Approaches Contributing to a Sustainable World	2
Covid-19 and Islamic Social Finance	2
Humanomics	2
International Journal of Innovation Creativity and Change	2
International Journal of Social Economics	2
Islamic Fintech	2
Journal of Cleaner Production	2
Research in International Business and Finance	2
Singapore Economic Review	2
Academy of Strategic Management Journal	1
Accounting and the Public Interest	1
Accounting Finance Sustainability Governance and Fraud	1
ACRN Journal of Finance and Risk Perspectives	1

B. Authors

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Do not use abbreviations in the title or heads unless they are unavoidable. Table III shows the most prolific authors publishing in Islamic finance and sustainability. There are three authors at the top of the ranking: Arslan Ayaydin, Choudhury, and Hassan. Ozgur Arslan Ayaydin is a professor in the Finance department at the University of Illinois at Chicago, whose research areas focus on financial flexibility, corporate investment, and performance. Prof Masudul Alam Choudhury of Trisakti University has his main research field in theoretical contribution to Islamic finance. At the same time, Kabir Hassan is a Professor of Finance and Hibernia Professor of Economics and Finance at the University of New Orleans and focuses on developments in Islamic banking.

However, figure 2 shows that some publications come from these countries, but they appear more as sporadic contributions rather than a focus of research. The figure maps geographically the places where publications in this field are being published in the world: the darker the blue colour, the greater the number of publications in the country.

TABLE III. NUMBER OF ARTICLES PER AUTHOR

Authors	***Articles***
Arslan-Ayaydin	3
Choudhury	3
Hassan	3
Dorsman	2
Dreassi	2
Engku Ali Era	2
Goud	2
Karan	2
Kunhibava	2
Mahadi	2

TABLE IV. NUMBER OF ARTICLES PUBLISHED IN EACH COUNTRY

Region	***Occurrences***
Malaysia	34
Netherlands	13
Italy	12
USA	11
Indonesia	6
Australia	5
Pakistan	5
Bahrain	4
Bangladesh	4
Nigeria	4
UK	4
Qatar	3
Turkey	3
Jordan	2
Oman	2
Spain	2

As for the countries, most closely associated with conventional finance, the topic is of interest in the Netherlands (13), Italy (12), and the USA (11). This is due to the potential of Islamic finance as a more sustainable model in crises [48].

1) Country publications and collaboration map

The following section analyses the number of citations for publications in each country. The top paper in our cluster is Malaysia (96), followed by Poland (31), Qatar (26) and Italy (20). However, the distribution of average citations over the years shows a different distribution. In fact, for this variable, Poland has the highest number of average publications per year, due to the paper by Hussain et al. [49] that sees Islamic finance as socially responsible investment. This is followed by Qatar, with 26 average citations per year. The number of average citations per year drops in countries where more is published, like Malaysia and Italy show. This is both because the higher number of publications identifies a fluctuating trend in the number of citations obtained. The topic of Islamic finance and sustainability being rooted in more years shows more dispersion in terms of time.

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FIGURE 2. COUNTRY'S SCIENTIFIC PRODUCTION

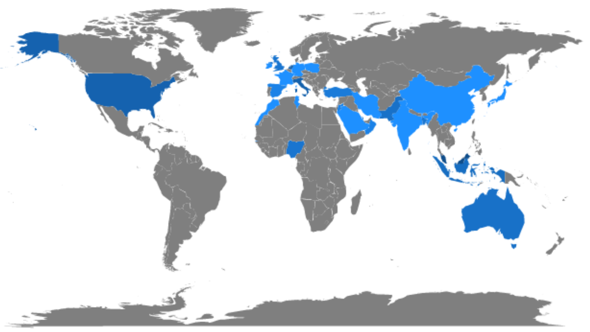
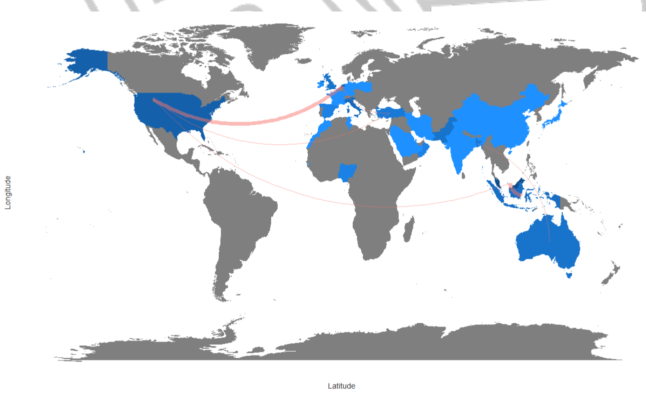


TABLE V. NUMBER OF ARTICLES PUBLISHED IN EACH COUNTRY

Country	*Total Citations*	*Average Article Citations*
Malaysia	96	7,3
Poland	31	31
Qatar	26	26
Italy	20	6,6
Oman	8	8
Spain	5	5
Netherlands	3	3
Australia	2	2
China	2	2

Figure 3 shows the connections (red stripe). The primary relationships are highlighted between Malaysia and Indonesia (3) and the USA and the Netherlands (3). Although different environmental conditions are evident, the Indonesian banking system, in particular, is focused on substance, whereas the Malaysian banking system considers symbols and form [50]. The US and the Netherlands are among the leading countries investigating the field of Islamic finance without having Islam as their first religion [51].

FIGURE 3. COUNTRY COLLABORATION MAP



C. *Thematic analysis*

This section introduces thematic analysis as implemented in the bibliometrix software [29]. By studying the authors' keywords and topic dendrogram, the section aims to define the strands of literature that Islamic finance refers to in dealing with sustainability issues.

1) *Keywords analysis*

Figure 4 discusses the connection between the terms' Islamic finance' and 'sustainability'. In their publications, researchers use a variety of keywords to situate their papers within the literature. The main words are "finance", "Islamism", "Malaysia", "sustainability", and "sustainable development". The word "finance" aims to identify papers investigating Islamic finance from a monetary and financial instrument perspective. The word "islamism" is used to distinguish research on Islamic finance from research on conventional finance. Many of the articles using this keyword deal with microfinance [52] and social banking [53] topics. "Malaysia" appears among the keywords as many among the articles focus on this nation. According to the literature [17], Malaysia belongs to 85% of the leading nations in Islamic finance and has been the subject of numerous case studies [41], [49], [54], [55]. The words' sustainability' and 'sustainable development' are intended to identify papers investigating how Islamic banking can improve performance in terms of environmental sustainability [56]. Others, however, explore social finance [57] and economic sustainability [58]. In this sense, the three streams of literature as theorised are confirmed [7].

FIGURE 4. AUTHOR'S KEYWORDS IN ARTICLES ON ISLAMIC FINANCE AND SUSTAINABILITY

2) *Topic dendrogram analysis*

Figure 5 shows a dendrogram of topics reflecting the order of the keywords created through hierarchical clustering and their connection. The vertical lines and the cut of the figure facilitate the investigation and understanding of the various groupings. The figure is intended to estimate the number of clusters to allow for future discussion. The first block in purple focuses on environmental sustainability and measurement systems. Specifically, the focus is on environmental sustainability, measurement systems, and Islamic banking. Sustainability practices and financial performance from the perspective of Islamic banking can be measured in a sustainability framework for Islamic banking [18]. From an environmental sustainability perspective, the inclusive green behaviour of Islamic bankers can positively influence the growth of green banking [16]. Therefore, Islamic finance institutions can be valuable tools for developing green awareness and environmental concerns through Islamic banks.

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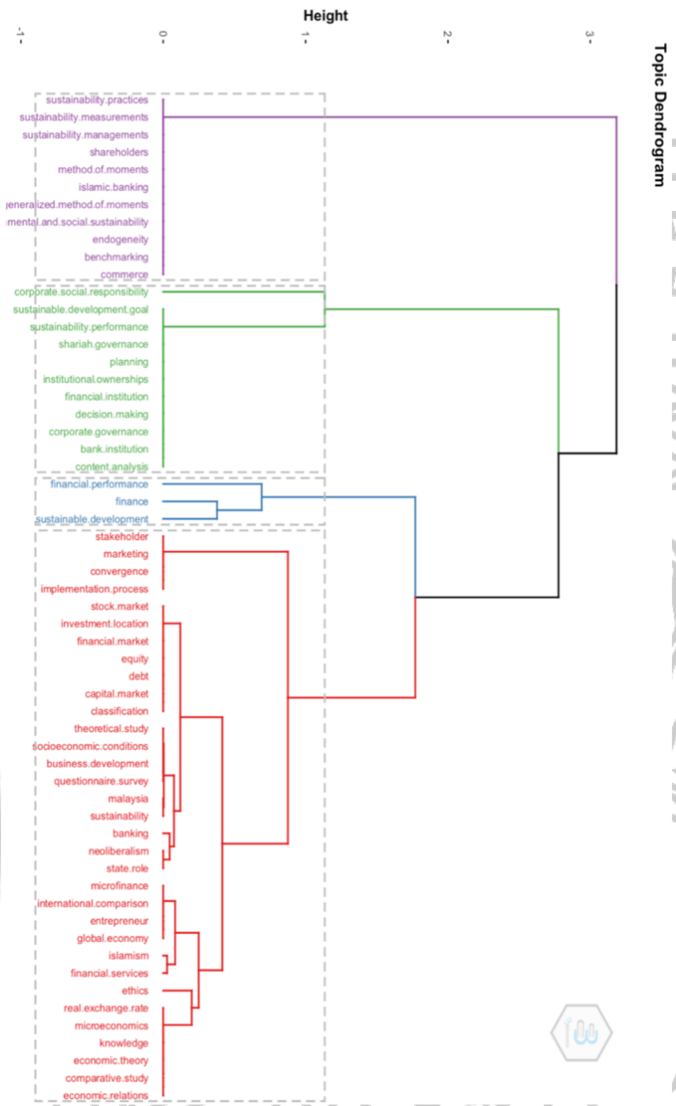
FIGURE 5. TOPIC DENDROGRAM



Corporate Social Responsibility (CSR) initiatives of companies are one of the green cluster's words and the key to success in business and modern society. The Islamic perspective of CSR is based on religious ethics and appears to be significant and intensified. According to Khan [56], working for the betterment of the poor, ensuring the most efficient and socially desirable use of financial resources, developing their institutional structures, infrastructure, and innovative products are challenges that Islamic finance can address. Through the principles of justice and equity, Islamic Banking and Finance also provides a vehicle for energy companies [42]. The issue of CSR is an essential factor in the Islamic banking sector and in the perception of various stakeholder groups that they can guide the strategic decisions taken by Islamic banks, based on their offerings, brand identity and customer service levels [43]. This defines the strand of social responsibility, connoting Islamic finance as a financial and economic model based on ethical principles and values in which sustainable development and social responsibility play an essential role [59]. Islamic finance is full of main instruments to propose Islamic social finance, such as waqf, a continuous charitable donation preferred for its perpetual, irrevocable characteristics [60].

The blue cluster aims to identify the economic sustainability of Islamic finance. The introduction of the Sustainable Development Goals or SDGs in 2015 led scholars to the exploration of practices of Islamic banks in the application of value-based intermediation through Islamic social finance and its impact [57]. Several developments of economic sustainability through Islamic finance for small and medium enterprises were observed based on philanthropic motives, private sector activities and public sector facilitation [61]. In this context of the discussion, Islamic finance is proposed as an alternative to conventional finance to pursue economic sustainability through instruments with different economic impacts, including joint venture (musharakah), Islamic bonds (sukuk) and Islamic insurance (takaful) [62]. However, according to Jan et al. (2019) [18], the in-depth analysis revealed that the market is not interested in banks' environmental and social sustainability, except for their economic sustainability practices. Therefore, the correlation between performance and economic sustainability of Islamic finance is through sustainability practices. The fourth cluster in red does not appear to open up space for a fourth research stream. Some scholars have focused their efforts on understanding the socio-economic factors that favour the spread of the Islamic financial system. According to literature [63], in countries of Islamic culture, certain groups of people are less likely to be included in financial transactions, especially if they involve traditional loans and accounts. Moreover, there is a clear need to encourage young people, the poor and women to use formal banking services to improve their access to financial services.

Other papers assess the approach from a socially responsible investment perspective. Studying how companies react to share price shocks based on a classification based on social pressures rather than the financial objective of maximising shareholder wealth, Hussain et al. [49] classified companies in the stock market as Shari'ah compliant and non-Shari'ah compliant. The result is that non-compliant company do not significantly alter accounting debt ratios during falling capital prices. Instead, compliant firms are more likely to increase book debt ratios during periods of declining equity values.

Finally, this cluster includes the theoretical frameworks related to the topic. First, some articles aim to explore the concept of social banking and to look for the possibilities of internalisation in Islamic banking, given the social failures of Islamic banking [53]. Subsequently, a comparative study of endogenous money in the quantity theory of money revealed significant differences between the theory of endogenous money in Islam and traditional methodologies. In the context of Islamic finance, it has never been fully determined which model is used to explain monetary transmission and the functioning of monetary policy with interest rate-avoiding instruments that meet the requirements of Islamic financing [64]. Therefore, the sample of papers presents numerous theorisations.

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IV. Discussion and Conclusion

A. *Definition of research streams*

The following section aims to answer the second research question based on the analysis results to outline the research strands for Islamic finance and sustainability. Starting from Keeble's definition [7], our paper asseverated the presence of the three different versions of sustainability: environmental, economic and social within the sample of articles analysed. According to Khan [56], Islamic banking can improve performance in terms of sustainability. Therefore, the following section aims to define the three different streams of literature about Islamic finance and sustainability.

1) *Environmental sustainability perspective*

The articles in the sample focused on environmental sustainability and measuring systems. The emphasis is on environmental sustainability, measuring methods, and Islamic finance. Sustainability practices and financial performance from the viewpoint of Islamic banking, according to Jan et al. [17], may be assessed in an Islamic banking sustainability framework. From the standpoint of environmental sustainability, Islamic bankers' inclusive green behaviour may favourably impact the development of green banking [46]. As a result, Islamic financial institutions, such as Islamic banks, may be helpful instruments for raising green consciousness and environmental concerns.

2) *Social sustainability perspective*

The second stream of study is concerned with social responsibility, precisely the Islamic viewpoint of CSR, which is founded on religious ethics and seems to be essential and intensified. Working for the benefit of the poor, guaranteeing the most effective and socially acceptable use of financial resources, and expanding their institutional structures, infrastructure, and innovative products are all problems that Islamic finance can solve [56]. Islamic Banking and Finance, based on the ideals of justice and fairness, also serves as a vehicle for energy businesses [42]. CSR is an important element in the Islamic banking industry, and different stakeholder groups believe that it may influence strategic choices made by Islamic banks based on their products, brand identification, and customer service standards [43]. This outlines the thread of social responsibility, referring to Islamic finance as a financial and economic model founded on ethical principles and values. Sustainable development and social responsibility play critical roles [59]. Islamic finance is full of significant tools to offer Islamic social financing, such as waqf, a continuous charitable gift favoured for its permanent, irreversible, and inalienable qualities [60].

3) *Economical sustainability perspective*

The adoption of the Sustainable Development Goals (SDGs) in 2015 prompted academics to investigate Islamic banks' activities in applying value-based intermediation via Islamic social finance and the effect of these practices [57]. Several advances in economic sustainability via Islamic financing for small and medium-sized businesses have been noted based on charitable motivations, private sector initiatives, and governmental sector assistance [61]. In this context, Islamic finance is suggested as an alternative to conventional finance for pursuing economic sustainability through instruments with varying economic effects, such as joint venture (musharakah), Islamic bonds (sukuk), and Islamic insurance (takaful) [62]. In-depth research, however, showed that the market is not interested in banks' environmental and social sustainability policies, save for their economic sustainability measures [18]. As a result, the connection between Islamic finance performance and economic sustainability is via the development of sustainability practices. The fourth red cluster does not seem to make room for a fourth research stream. Some academics have concentrated their efforts on gaining a better grasp of the socioeconomic variables that promote the development of the Islamic banking system. According to Shihadeh [63], in Islamic-culture nations, some categories of individuals are less likely to be engaged in financial transactions, particularly when official loans and accounts are involved. Furthermore, there is a specific need to encourage young people, the disadvantaged, and women to utilize formal banking services to enhance their access to financial services.

B. *Theoretical implications*

Our paper acknowledges some theoretical implications. First of all, it allows ascertaining the validity of Keeble's theory [7], extending the validity of his definition of sustainability also except Islamic finance. Subsequently, it defines and outlines three different declinations of sustainability for Islamic finance. Finally, it allows highlighting that a single monetary theoretical model underlying Islamic finance is not yet outlined [64].

C. *Practical implications*

Our research also has practical implications. First, it allows us to understand that sustainability practices by banking institutions can foster the growth of the green economy and economic inclusion [46]. Second, it highlights how in a CSR context, it is a vital factor for Islamic finance to channel strategic decisions in Islamic banking institutions, ensuring adequate perception by different stakeholder groups [43]. Third, it was shown that the market is not interested in banks' spending on their environmental and social sustainability, but only on their economic sustainability practices [18].

D. *Limitations*

Our study, like many studies, has limitations. To begin, the sample of publications was limited to guarantee a structured method. This might have resulted in our missing out on important research papers and proceedings. Second, considering the bibliometric variable analysis, future research may focus on bigger literature samples by completing open code inquiry to find better scientific subjects addressed. Third, the embryonic stage of the literature may provide fresh economic research that may contradict, or render outdated the current study. The sample used is more geared toward studies in the hard sciences than studies in management.

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E. Future research

Bibliometric analysis, according to Paul and Criado (2020) [28], identifies and predicts future study areas. As a result of the analysis, we were able to determine which research areas merit further investigation. The rigorous approach used opens a plethora of possibilities for scholars to investigate. The research highlights certain aspects that do not seem to be well covered in the literature. Future research will have to consider the cauldron of economic and monetary theories underlying Islamic finance that lack appropriate definition, as evidenced by the red cluster in the topic dendrogram. In addition, other researchers could use this research to explore best practices in each of the three strands of literature highlighted. Finally, future research should investigate the concept of sustainability as a whole and consider the three different streams of literature: environmental, economic, and social.

References

[1] M. Asutay, «Islamic moral economy as the foundation of Islamic finance», *Islamic Finance in Europe: Towards a Plural Financial System*, n. May, pagg. 55–63, 2013, doi: 10.4337/9781781002513.00014.

[2] P. P. Biancone, *La banca islamica*, vol. 2. G Giappichelli Editore, 2017.

[3] A. Jan e M. Marimuthu, «Sustainability Profile of Islamic Banking Industry: Evidence from World Top Five Islamic Banking Countries», *International Journal of Economics and Finance*, vol. 7, n. 5, pagg. 125–139, 2015, doi: 10.5539/ijef.v7n5p125.

[4] S. Secinaro, *Equity crowdfunding Sharia compliant*, vol. 1. G Giappichelli Editore, 2017.

[5] M. Saeed, M. Izzeldin, M. K. Hassan, e V. Pappas, «The inter-temporal relationship between risk, capital and efficiency: The case of Islamic and conventional banks», *Pacific-Basin Finance Journal*, vol. 62, pag. 101328, 2020, doi: https://doi.org/10.1016/j.pacfin.2020.101328.

[6] S. Akhtar, «Islamic finance: Sustainability and challenges», *NBR Analysis*, vol. 18, n. 4, pagg. 15–24, 2008.

[7] B. R. Keeble, «The Brundtland Report: "Our Common Future"», *Medicine and War*, vol. 4, n. 1, pagg. 17–25, 1988, doi: 10.1080/07488008808408783.

[8] I. Meutia e D. Febrianti, «Islamic Social Reporting in Islamic Banking: Stakeholders Theory Perspective», *SHS Web of Conferences*, vol. 34, pag. 12001, 2017, doi: 10.1051/shsconf/20173412001.

[9] H. Nobanee e N. Ellili, «Corporate sustainability disclosure in annual reports: Evidence from UAE banks: Islamic versus conventional», *Renewable and Sustainable Energy Reviews*, vol. 55, n. August, pagg. 1336–1341, 2016, doi: 10.1016/j.rser.2015.07.084.

[10] C. Mallin, H. Farag, e K. Ow-Yong, «Corporate social responsibility and financial performance in Islamic banks», *Journal of Economic Behavior and Organization*, vol. 103, 2014.

[11] H. Dhuizii, «Financial Structure and Bank Profitability», *Financial Structure and Economic Growth*, n. August, 2018, doi: 10.7551/mitpress/3001.003.0010.

[12] A. Hassan e S. Syafri Harahap, «Exploring corporate social responsibility disclosure: the case of Islamic banks», *International Journal of Islamic and Middle Eastern Finance and Management*, vol. 3, n. 3, pagg. 203–227, gen. 2010, doi: 10.1108/17538391011072417.

[13] W. Mansour, K. Ben Jedidia, e J. Majdoub, «How ethical is islamic banking in the light of the objectives of islamic law?», *Journal of Religious Ethics*, vol. 43, n. 1, pagg. 51–77, 2015, doi: 10.1111/jore.12086.

[14] J. Bebbington e J. Unerman, «Achieving the United Nations Sustainable Development Goals.», *Accounting, Auditing & Accountability Journal*, vol. 31, n. 1, pagg. 2–24, gen. 2018, doi: 10.1108/AAAJ-05-2017-2929.

[15] W. Leal Filho *et al.*, «Reinvigorating the sustainable development research agenda: the role of the sustainable development goals (SDG)», *International Journal of Sustainable Development & World Ecology*, vol. 25, n. 2, pagg. 131–142, 2018, doi: 10.1080/13504509.2017.1342103.

[16] S. Gateway, «Islamic finance to show low to mid single-digit growth in 2020-2021: S&P», *Salaam Gateway - Global Islamic Economy Gateway*. https://www.salaamgateway.com/story/islamic-finance-to-show-low-to-mid-single-digit-growth-in-2020-2021-sp (consultato ott. 20, 2021).

[17] A. Jan, M. N. Mata, P. A. Albinsson, J. M. Martins, R. B. Hassan, e P. N. Mata, «Alignment of islamic banking sustainability indicators with sustainable development goals: Policy recommendations for addressing the covid-19 pandemic», *Sustainability (Switzerland)*, vol. 13, n. 5, pagg. 1–38, 2021, doi: 10.3390/su13052607.

[18] A. Jan, M. Marimuthu, e M. P. bin M. @ Mat Isa, «The nexus of sustainability practices and financial performance: From the perspective of Islamic banking», *Journal of Cleaner Production*, vol. 228, pagg. 703–717, 2019, doi: 10.1016/j.jclepro.2019.04.208.

[19] S. Secinaro, V. Brescia, D. Calandra, e P. Biancone, «Employing bibliometric analysis to identify suitable business models for electric cars», *Journal of Cleaner Production*, pag. 121503, 2020.

[20] P. Biancone, S. F. Secinaro, e V. Brescia, «Introduction of Islamic finance in Brexit time, some tips for the West», 2019.

[21] A. Shafique, M. A. Faheem, e I. Abdullah, «Impact of Global Financial Crises on the Islamic Banking System», *Arabian Journal of Business and Management Review (OMAN Chapter)*, vol. 1, n. 9, pagg. 124–134, 2012.

[22] F. Lanzara, «Islamic finance and Sustainable Development Goals. A bibliometric analysis from 2000 to 2021», *European Journal of Islamic Finance*, 2021.

[23] P. P. Biancone, B. Saiti, D. Petricean, e F. Chmet, «The bibliometric analysis of Islamic banking and finance», *Journal of Islamic Accounting and Business Research*, 2020, doi: 10.1108/JIABR-08-2020-0235.

[24] S. Secinaro, D. Calandra, D. Petricean, e F. Chmet, «Social Finance and Banking Research as a Driver for Sustainable Development: A Bibliometric Analysis», *Sustainability*, vol. 13, n. 1, pag. 330, 2021, doi: 10.3390/su13010330.

[25] B. Uluyol, S. Secinaro, D. Calandra, e F. Lanzalonga, «Mapping waqf research: a thirty-year bibliometric analysis», *Journal of Islamic Accounting and Business Research*, 2021, doi: 10.1108/JIABR-01-2021-0031.

[26] M. Massaro, J. Dumay, e J. Guthrie, «On the shoulders of giants: undertaking a structured literature review in accounting», *Acc Auditing Accountability J*, vol. 29, n. 5, pagg. 767–801, giu. 2016, doi: 10.1108/AAAJ-01-2015-1939.

[27] I. Zupic e T. Čater, «Bibliometric methods in management and organization», *Organizational Research Methods*, vol. 18, n. 3, pagg. 429–472, 2015.

[28] J. Paul e A. R. Criado, «The art of writing literature review: What do we know and what do we need to know?», *International Business Review*, vol. 29, n. 4, pag. 101717, 2020.

[29] M. Aria e C. Cuccurullo, «bibliometrix: An R-tool for comprehensive science mapping analysis», *Journal of Informetrics*, vol. 11, n. 4, pagg. 959–975, 2017, doi: 10.1016/j.joi.2017.08.007.

[30] G. Secundo, P. Rippa, e R. Cerchione, «Digital Academic Entrepreneurship: A structured literature review and avenue for a research agenda», *Technological Forecasting and Social Change*, vol. 157, pag. 120118, 2020, doi: 10.1016/j.techfore.2020.120118.

[31] M. Massaro, J. Dumay, e A. Garlatti, «Public sector knowledge management: a structured literature review», *Journal of Knowledge Management*, 2015.

[32] S. Secinaro e D. Calandra, «Halal food: structured literature review and research agenda», *British Food Journal*, vol. ahead-of-print, n. ahead-of-print, gen. 2020, doi: 10.1108/BFJ-03-2020-0234.

[33] M. Oakleaf, *The value of academic libraries: A comprehensive research review and report*. Assoc of Cllge & Rsrch Libr, 2010.

[34] M. Campra, P. Riva, G. Oricchio, e V. Brescia, «Bibliometrix analysis of medical tourism», *Health Serv Manage Res*, pag. 09514848211011738, mag. 2021, doi: 10.1177/09514848211011738.

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[35] M. Campra, S. Pucci, e V. Brescia, «Can the Dow Jones Sustainable Index be Useful for Evaluating Dow Jones Islamic Market Companies?», *European Journal of Islamic Finance*, 2020.

[36] B. Elango e P. Rajendran, «Authorship trends and collaboration pattern in the marine sciences literature: a scientometric study», *International Journal of Information Dissemination and Technology*, vol. 2, n. 3, pagg. 166–169, 2012.

[37] M. A. Choudhury, «Unity of knowledge versus Kant's heteronomy with a reference to the problem of money, finance and real economy relations in a new global financial architecture», *International Journal of Social Economics*, vol. 37, n. 10, pagg. 764–778, 2010, doi: 10.1108/03068291011070435.

[38] N. Saidi, *Corporate governance in the islamic finance industry and mitigation of risks post the global financial crises*. Cambridge University Press, 2011. doi: 10.1017/CBO9780511736599.015.

[39] M. Y. B. Z. Kepli, «Islamic finance in Hong Kong», *Hong Kong Law Journal*, vol. 42, n. 3, pagg. 809–837, 2012.

[40] D. Elshurafa, «Islamic capitalism-an imminent reality or a hopeful possibility for Islamic finance?», *Arab Law Quarterly*, vol. 26, n. 3, pagg. 339–360, 2012, doi: 10.1163/15730255-12341236.

[41] M. Mohamad e J. Saravanamuttu, «Islamic banking and finance: sacred alignment, strategic alliances», *Pacific Affairs*, vol. 88, n. 2, pagg. 193–213, 2015, doi: 10.5509/2015882193.

[42] Ö. Arslan-Ayaydin, M. Bejaoui, A. B. Dorsman, e K. Shahzad, *Islamic finance versus conventional finance*. Springer International Publishing, 2016. doi: 10.1007/978-3-319-32268-1_11.

[43] V. Di Bella e N. Al-Fayoumi, «Perception of stakeholders on corporate social responsibility of Islamic Banks in Jordan», *EuroMed Journal of Business*, vol. 11, n. 1, pagg. 30–56, 2016, doi: 10.1108/EMJB-01-2015-0003.

[44] M. Campra, V. Brescia, V. Jafari-Sadeghi, e D. Calandra, «Islamic countries and Maqasid al-Shariah towards the circular economy. The Dubai case study.», *European Journal of Islamic Finance*, n. 17, 2021.

[45] A.-J. Ibrahim e N. S. Shirazi, «The role of islamic finance in fostering circular business investments: The case of oic countries», *Journal of Economic Cooperation and Development*, vol. 41, n. 1, pagg. 89–120, 2020.

[46] Q. Ali, S. Parveen, A. A. Senin, e M. Z. Zaini, «Islamic bankers' green behaviour for the growth of green banking in Malaysia», *International Journal of Environment and Sustainable Development*, vol. 19, n. 4, pagg. 393–411, 2020, doi: 10.1504/IJESD.2020.110650.

[47] S. Coronella, P. Biancone, S. Secinaro, e V. Brescia, «Monti di Pietà of 1500 and the Islamic banks as models of common good», *CONTABILITÀ E CULTURA AZIENDALE*, 2020.

[48] A. Kaleem, «Modelling Monetary Stability under Dual Banking System: The Case of Malaysia», *International Journal of Islamic Financial Services*, vol. 2, n. 1, pagg. 21–42, 2000.

[49] H. I. Hussain, J. Grabara, M. S. A. Razimi, e S. P. Sharif, «Sustainability of leverage levels in response to shocks in equity prices: Islamic finance as a socially responsible investment», *Sustainability (Switzerland)*, vol. 11, n. 12, 2019, doi: 10.3390/su10023260.

[50] M. Chabachib, A. Windriya, R. Robiyanto, e H. Hersugondo, «A comparative study of Indonesian and Malaysian Islamic banks», *Banks and Bank Systems*, vol. 14, n. 4, pag. 55, 2019, doi: 10.21511/bbs.14(4).2019.06.

[51] A. Belouafi, A. Belabes, e M. Daoudi, «Geo-education of Islamic Finance in the Global Space», *Procedia - Social and Behavioral Sciences*, vol. 46, pagg. 5335–5339, gen. 2012, doi: 10.1016/j.sbspro.2012.06.434.

[52] S. Ahmad, R. Lensink, e A. Mueller, «The double bottom line of microfinance: A global comparison between conventional and Islamic microfinance», *World Development*, vol. 136, 2020, doi: 10.1016/j.worlddev.2020.105130.

[53] S. Mohd Nor, R. Abdul Rahim, e Z. Che Senik, «The potentials of internalising social banking among the Malaysian Islamic banks», *Environment, Development and Sustainability*, vol. 18, n. 2, pagg. 347–372, 2016, doi: 10.1007/s10668-015-9651-0.

[54] U. A. Oseni e S. O. Omoola, «Banking on ICT: The relevance of online dispute resolution in the islamic banking industry in Malaysia», *Information and Communications Technology Law*, vol. 24, n. 2, pagg. 205–223, 2015, doi: 10.1080/13600834.2015.1067968.

[55] N. R. M. Zain, R. Hassan, e A. Ismail, *Enhancing islamic banking and finance in southeast asia through the application of artificial intelligence: An exploration of banking's best practices*. IGI Global, 2019. doi: 10.4018/978-1-7998-0039-2.ch003.

[56] M. M. Khan, «Developing a conceptual framework to appraise the corporate social responsibility performance of islamic banking and finance institutions», *Accounting and the Public Interest*, vol. 13, n. 1, pagg. 191–207, 2013, doi: 10.2308/apin-10375.

[57] N. F. Mahadi, N. R. Mohd Zain, e E. R. A. Engku Ali, «Leading towards impactful islamic social finance: Malaysian experience with the value-based intermediation approach», *Al-Shajarah*, vol. 2019, n. Special Issue IslamicBankingandFinance2019, pagg. 69–87, 2019.

[58] M. N. I. Sarker, M. N. Khatun, e G. M. M. Alam, «Islamic banking and finance: potential approach for economic sustainability in China», *Journal of Islamic Marketing*, vol. 11, n. 6, pagg. 1725–1741, 2020, doi: 10.1108/JIMA-04-2019-0076.

[59] S. Franzoni e A. A. Allali, «Principles of Islamic Finance and Principles of Corporate Social Responsibility: What Convergence?», *SUSTAINABILITY*, vol. 10, n. 3. MDPI, ST ALBAN-ANLAGE 66, CH-4052 BASEL, SWITZERLAND, mar. 2018. doi: 10.3390/su10030637.

[60] N. R. M. Zain, N. F. Mahadi, e A. M. Noor, «The potential in reviving waqf through crowdfunding technology: The case study of thailand», *Al-Shajarah*, vol. 2019, n. Special Issue Islamic Bankingand Finance 2019, pagg. 89–106, 2019.

[61] T. Khan e F. Badjie, «Islamic blended finance for circular economy impactful smes to achieve SDGs», *Singapore Economic Review*, 2020, doi: 10.1142/S0217590820420060.

[62] B. Yildiz, *Basic terminology in Islamic finance and Turkish perspective*. Palgrave Macmillan, 2014. doi: 10.1057/9781137413307.0010.

[63] F. H. Shihadeh, «Individual's behavior and access to finance: Evidence from palestine», *Singapore Economic Review*, 2019, doi: 10.1142/S0217590819420025.

[64] M. A. Choudhury, «Micro-money, finance and real economy interrelationship in the framework of islamic ontology of unity of knowledge and the world-system of social economy», *International Journal of Social Economics*, vol. 45, n. 2, pagg. 445–462, 2018, doi: 10.1108/IJSE-11-2016-0340.

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