

An Analysis of Performance, Efficiency, and Sustainability in Islamic Banks Using Bibliometric Methods

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Abstract: - The Performance, Efficiency, and Sustainability in Islamic Banks literature was thoroughly reviewed using a bibliometric approach that gathered 1,031 publications from Scopus-indexed journals published between 2008 and 2023. We sorted nations, institutions, sources, papers, and writers by performing an exhaustive data analysis using a suite of tools, including Excel, RStudio, and VOSviewer, to determine who has made the most significant contributions to the field of performance, efficiency, and sustainability in Islamic banks. Particularly after 2020, this study showed a dramatic increase in publishing rates. Important areas of study included Islamic banking and finance, Islamic finance and economic growth, Islamic finance and financial crises, and Islamic finance: performance and efficiency. Authors hailing from the US, UK, and Malaysia rose to the pinnacle of their fields quite quickly. Stakeholders may use these findings to inform their decision-making, particularly about the potential impact of performance, efficiency, and sustainability in Islamic banks.

Key-Words: - Performance, Efficiency, Sustainability, Islamic Banks, bibliometric analysis, Trends, Research Gaps.

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1. Introduction

Navigating a unique path in the financial world, Islamic banks weave ethical principles into their very fabric, shaping their pursuit of long-term prosperity. This unique approach, which follows Sharia law, differs from traditional banking and raises intriguing questions about its operational structure, efficacy, and resilience. Scholars like Beck, et al. [1], have delved into these complexities, comparing Islamic banking's mechanics to their traditional counterparts. Others, including Abedifar, et al., [2], have explored the unique concept of risk within this ethical framework.

Crucial aspects like Shari'ah oversight and corporate governance come under the microscope in Mollah and Zaman's [3], study, highlighting their impact on performance. Platonova et al. [4].

investigate the relationship between corporate social responsibility disclosure and financial success in the Islamic banking sector of the Gulf Cooperation Council, which goes beyond internal structures. This resonates with Mallin, et al. [5], exploration of the correlation between social responsibility and financial performance in Islamic banks, suggesting a potential synergy between ethical principles and profitability.

Hoepner et al. [6], Mollah et al. [7], Johnes et al. [8], Ho et al. [9], and Hayat and Kraeusl, [10], all contribute to a rich tapestry of ideas on sustainability, efficiency, and performance in Islamic banking. With this thorough comprehension, new avenues of investigation and development may be opened, guaranteeing that Islamic banking will survive and

even prosper in the dynamic world of international finance.

Islamic banks have risen to prominence in the global financial system, but navigating the delicate balance between Sharia principles and financial performance remains a significant challenge. Unlike their conventional counterparts, they must juggle ethical, social, and moral considerations alongside profit maximisation, creating an intricate web of objectives. Lack of in-depth research on the crucial facets of Islamic banking's effectiveness, sustainability, and performance adds to this complexity.

To bridge this knowledge gap, scholars are calling for a deeper understanding of how these institutions operate at the crossroads of financial success and ethical considerations. Ajmi et al. [11], Jawadi et al. [12], Ariss, [13], Srairi, [14], Hassan and Harahap, [15], Rosman and Zain, [16], Kabir et al. [17], Abduh and Omar, [18], and Tahir and Dar, [19], all agree: comprehensive studies are crucial to unveiling the inner workings, limitations, and potential of Islamic banks, thereby solidifying their place within the broader financial system.

This study tackles the historical disorganisation within the field of Islamic banks by employing a bibliometric approach. By analysing the existing body of literature, it aims to answer the following research questions:

- a) From 2008 to 2023, how have academics studied the field of Islamic banking?
- b) According to bibliometric research, who are the leading figures in the subject of Islamic banks, how often do their works get cited, and how many publications have they published?
- c) Where does the existing literature on Islamic banks' performance, efficiency, and sustainability fall short, and how may this affect the direction of future studies?

Drawing on a vast dataset of 1,031 publications spanning 2008 to 2023, a comprehensive bibliometric analysis has shed light on the diverse and dynamic landscape of Islamic banking research. This rigorous study employed a powerful toolkit of analytical techniques, including trend analysis, keyword exploration, collaboration patterns, citation analysis, and more, to paint a detailed picture of the field's intellectual terrain.

The research revealed four key areas of inquiry that resonate with wider patterns observed in Islamic financial and banking literature. Interestingly, bibliometric studies done by Alam et al. [20], Hassanein and Mostafa, [21], Alshater et al. [22], Hassan et al. [23], Qudah et al. [24], and Tijjani et al.

[25], all found similar patterns and emphasised important works in their own specific fields.

This comprehensive analysis contributes significantly to our understanding of the intellectual structure and evolution of Islamic banking research. By delving into the major themes, prominent scholars, and foundational publications, it provides valuable insights into the field's current state and future directions. Moreover, by examining specific academic journals like the International Journal of Islamic and Middle Eastern Finance and Management and the Journal of Islamic Accounting and Business Research, the study illuminates the unique intellectual ecosystems within these subfields.

Furthermore, the inclusion of Hassan et al.'s [24], literature analysis and future research plan on Islamic banking in Bangladesh adds a valuable geographic dimension to the discussion, showcasing the diverse contexts that shape research priorities in this field.

The next stage of this research delves deeper into the details. Section 2 meticulously dissects the data collected and the analytical tools employed to draw meaningful conclusions from it. Section 3 unveils the findings of this comprehensive bibliometric investigation in rich detail, laying bare the insights gleaned from the vast ocean of data. Finally, Section 4 brings the journey to a close by summarising the key takeaways and highlighting their impact on future research into the efficiency, effectiveness, and longevity of Islamic banks. Brace yourself for a fascinating exploration of the intellectual landscape of Islamic banking research.

2. Approach to research

2.1 Recording Information

2.1.1 Sources of the data

Research by Ikra et al. [26] supported our decision to use Scopus as our primary data source. Its superiority over other choices was due to a number of factors. In the first place, we can be certain that we will not miss any significant articles in the complex area of Islamic banking research since Scopus contains an unparalleled breadth of peer-reviewed academic papers across all disciplines. The second reason it was perfect for collecting a cross-section of important papers was its widespread acceptance and accessibility among experts in Islamic finance. Finally, in addition to its robust search capabilities, Scopus offers users a robust suite of bibliometric analysis tools. Because of its flexibility, we were able to plan our research with great precision, down to the ability to export bibliographic data in formats that aided further analysis. Finally, Scopus offered a

bigger and more comprehensive collection of publications for the particular subject of our inquiry compared to alternatives like Web of Science [WoS].

2.1.2 Methodology for Choosing and Improving Keywords

For our research on Islamic banking words, we utilised a strict two-pronged approach to ensure accurate keyword selection. To begin, we meticulously extracted the most significant and often-used terms from internet dictionaries and glossaries that are relevant to Islamic banking. This laid the framework for the terminology. Scopus is a famous academic database that we utilised in two phases to further refine our search. First, we had to make sure our final search query was inside the platform's character limit by using the Scopus keyword tool. In this round of investigation, we were able to find interesting phrases within the constraints of the search box. In the second step, we made sure our query and the results that followed were solid by checking the accuracy of each identified phrase separately.

The combination of Scopus' massive resources with expert knowledge from specialised dictionaries and glossaries yielded excellent results. Because of this, we were able to accurately represent the depth and breadth of Islamic banking terminology while maintaining a high standard of keyword precision. Incorporating the information from both of these resources allowed us to choose the most appropriate words that adequately defined our research topic.

Table 1 shows that after the development of our research topic, we used this search approach, paying close attention to the title and keyword criteria. Limiting our search to articles and reviews on Islamic finance written in English allowed us to produce our initial dataset of 3,025 publications. We added several filters after realising there was a need for further fine-tuning. Our first step was to limit ourselves to reviews and articles that were published between 2008 and 2023. Secondly, the significance of each article for our specific research topic was carefully considered. Lastly, any remaining irrelevant elements were removed using human filtering approaches.

This comprehensive and varied technique allowed us to construct a very relevant and focused dataset, providing a solid foundation for our investigation into the complex world of Islamic banking jargon.

Table 1. Data Collection Final Query.

| No. | Search Query | Findings |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| #1 | TITLE-ABS-KEY [all = [["Performance" OR "Efficiency" OR "Effectiveness" OR "Productivity" OR "Metrics" OR "Benchmarking" OR "Optimization" OR | 3,025 |

| | | |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| | "Results" OR "Output" OR "Sustainability" OR "Green" OR "Renewable" OR "Conservation" OR "Eco-friendly" OR "ESG" OR "Corporate governance" OR "Ethical investing" OR "Stakeholder engagement" OR "Diversity and inclusion" OR "Transparency" OR "Ethical sourcing"] AND ["Islamic Banks" OR "Islamic Finance" OR "Islamic Financial Institutions"]]] AND [LIMIT-TO [SUBJAREA, "ECON"]] AND [LIMIT-TO [DOCTYPE, "ar"]] AND [LIMIT-TO [PUBSTAGE, "final"]] AND [LIMIT-TO [LANGUAGE, "English"]] AND [LIMIT-TO [SRCTYPE, "j"]] | |
| | English is the only language accepted for online economics and finance journals, articles, and reviews. | |
| #2 | Restricting the investigation to scholarly articles published between 2003 and 2023 only; journals will not be considered. | 1,384 |
| #3 | In order to do a comprehensive study, articles unrelated to money are being removed using a manual screening method. | 1,031 |

To prepare our data for further analysis, we employed rigorous bibliometric techniques. Stringent inclusion and exclusion criteria were established, ensuring only articles with clear relevance to the designated field of Islamic banking literature advanced. This meticulous filtering process led to a refined dataset of 1,031 articles and reviews, ready for the next stage of bibliometric and content analysis. The rationale behind these choices will be explored in more depth in the subsequent section.

Our decision to delve into the world of Islamic banking stemmed from a comprehensive examination of the intricate interplay between Islamic banking principles and broader Islamic concerns. This investigation revealed a fascinating trend: since the mid-twentieth century, Islamic banking considerations have progressively permeated discussions about the field. By the 1990s, as Geoghegan et al. [27], point out, Islamic banking had firmly established itself as a distinct academic discipline, paving the way for further research and development. The rising popularity of keywords relating to Islamic banking serves as additional evidence of this evolution and emphasizes the crucial role that analysis plays in comprehending and addressing current challenges in the industry.

2.2 Methods and tools for the research

Pritchard invented in-depth citation analysis, which is still a crucial method for identifying and assessing networks of scholarly articles. As Alvarez et al. [28], note, this approach, when paired with scientometrics, has proven invaluable in past research endeavors. Aladayleh et al. [29], and Alqudah et al. [30], have

praised its capacity to deliver accurate and reproducible findings that clarify the intellectual landscape of a field. From nations and institutions to individual researchers, journals, and emerging themes, bibliometrics has shed light on the research output of diverse entities [24; 31]. When coupled with content analysis, this method facilitates the synthesis of contributions within a specific field.

Our investigation employed a multifaceted methodological approach. Initially, we conducted a performance analysis to identify the field's leading scientific figures and their impact on the literature. Subsequently, we delved deeper into the performance of various actors within the scientific community, including journals, authors, and nations, through comprehensive citation analysis. Lastly, we used biblioshiny and VOSviewer to do network analyses that included keyword co-occurrence, trend analysis, co-authorship networks, and bibliographic coupling. RStudio provided the graphical user interface for these bibliometric tests [32; 33; 34; 35; 36], while VOSviewer facilitated our understanding of key contributions [32; 35].

3. Results and discussion

3.1 Evaluation and Overview of Performance

Table 2 summarises the key statistics gleaned from the Scopus database for the period 2008–2023. The dataset comprises 1,031 articles, culled from 199 journals and books. This impressive collection boasts an average citation count of 21.6 per document, indicative of the field's burgeoning significance. Further highlighting the extensive literature review undertaken, the dataset features a substantial 44,748 references. A total of 10,660 authors contributed to these works, with 1,091 penning solo pieces. Collaborative efforts are evident in the average co-authorship rate of 2.67 per document, and remarkably, 34.43% of these collaborations involve international co-authors. Notably, all 1,031 publications fall under the official classification of

"articles," solidifying the focus on in-depth scholarly research within this field.

Table 2. Scopus Database Essential Data

| Description | Findings |
|--------------------------------------|-----------|
| Primary Data Overview | |
| Timespan | 2008:2023 |
| Sources [Journals, Books, etc] | 199 |
| Documents | 1031 |
| Annual Growth Rate % | 7.6 |
| Document Average Age | 5.37 |
| Average citations per doc | 21.6 |
| References | 44748 |
| Publication Overview | |
| Keywords Plus [ID] | 197 |
| Author's Keywords [DE] | 2317 |
| Authors | |
| Total Authors | 10660 |
| Authors of Single-Authored Documents | 1091 |
| Collaborative Authors | |
| Single-authored docs | 176 |
| Co-Authors per Doc | 2.67 |
| International co-authorships % | 34.43 |
| Publication Types | |
| Article | 1031 |

Figure 1 paints a captivating picture of the evolving landscape of Islamic banking literature over time. It reveals key trends and fluctuations, showcasing the field's dynamic growth. The polynomial curve, with a coefficient of 0.4, predicts 36 publications in 2023, indicating a sustained, albeit moderated, level of scholarly activity. Notably, 2020 witnessed a surge, with a staggering 140 articles published and a coefficient of 1.2. This peak suggests a period of intense exploration and contribution to the field. In contrast, 2013 and 2017 exhibit distinct patterns: 2013 saw a steadier output of 34 publications with a coefficient of 1.0, while 2017 marked another period of significant growth with 110 papers published and a high coefficient of 1.7. The ebb and flow of scholarly activity emphasizes the dynamic nature of Islamic banking research, with phases of consolidation and deeper exploration following periods of rapid expansion. As we move forward, it will be fascinating to see how this trend continues to shape the trajectory of this burgeoning field.

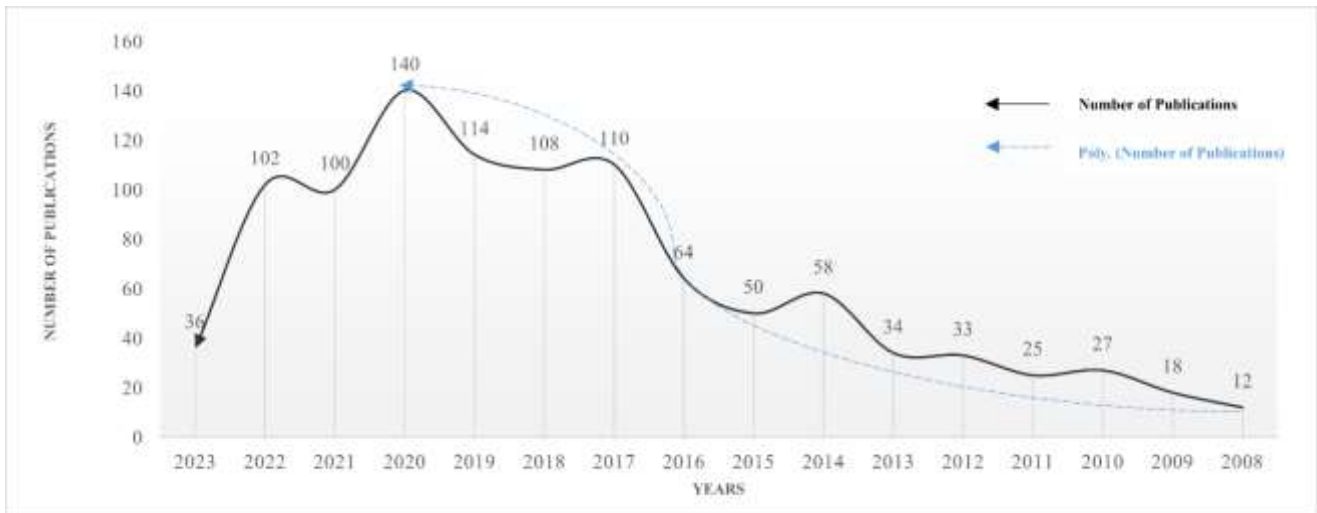


Figure 1. Islamic banking literature growth.

Figure 2 illuminates the global landscape of Islamic banking research, showcasing the country's leading the charge in both publication volume and citation impact. Malaysia reigns supreme, with a commanding presence of 415 articles and a hefty 6,136 citations, solidifying its position as a powerhouse in the field. Indonesia follows closely behind with 253 publications and 1,813 citations, demonstrating its dedication to advancing Islamic banking knowledge. The UK, with 132 articles and

an impressive 4,127 citations, cements its place as a major player. Notably, the contributions extend far beyond these top three, with the US, Saudi Arabia, Pakistan, and Tunisia all making significant marks on the field. This distribution of academic output paints a picture of a truly globalised field where diverse nations actively contributes to the development and understanding of Islamic banking, both in terms of sheer volume and impactful research.

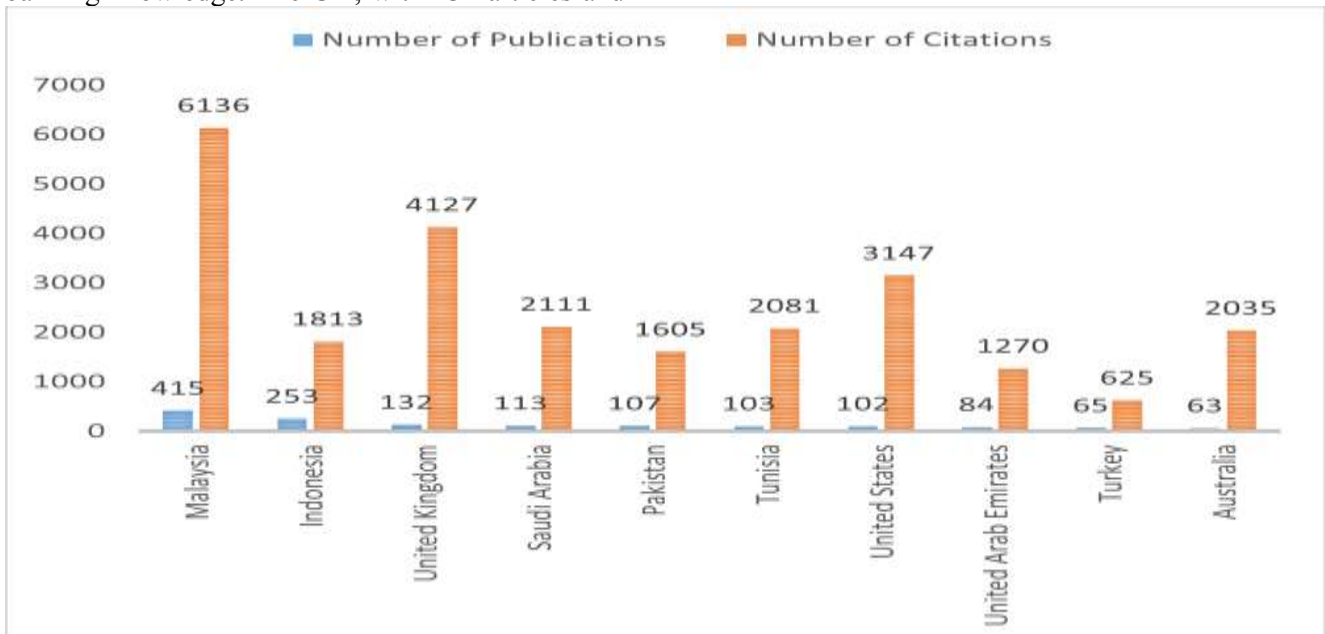


Figure 2. The Most Productive and Influential Countries.

Figure 3 delves deeper into the collaborative landscape of Islamic banking research, revealing the distribution of scholarly publications based on matched co-authors [MCPs] and single-country publications [SCPs]. With a total of 234 articles, Malaysia emerges as the leading contributor, boasting a substantial MCP ratio of 0.225 [43 out of 191 articles]. This indicates a strong commitment to collaborative research, as nearly a quarter of their

publications involve international co-authorship. Interestingly, the United States, despite having a lower overall publication count [84 articles], exhibits an even more impressive MCP ratio of 0.683. This suggests that US researchers actively participate in collaborative projects with scholars from diverse nations, highlighting the field's growing interconnectedness. The influence of other countries like Indonesia, the UK, Tunisia, Saudi Arabia,

Pakistan, the UAE, and Australia is also evident, showcasing the global nature of Islamic banking research and knowledge exchange. These statistics paint a compelling picture of a field characterised by

both individual country contributions and a thriving spirit of international collaboration, driving the field's progress and fostering cross-cultural understanding.

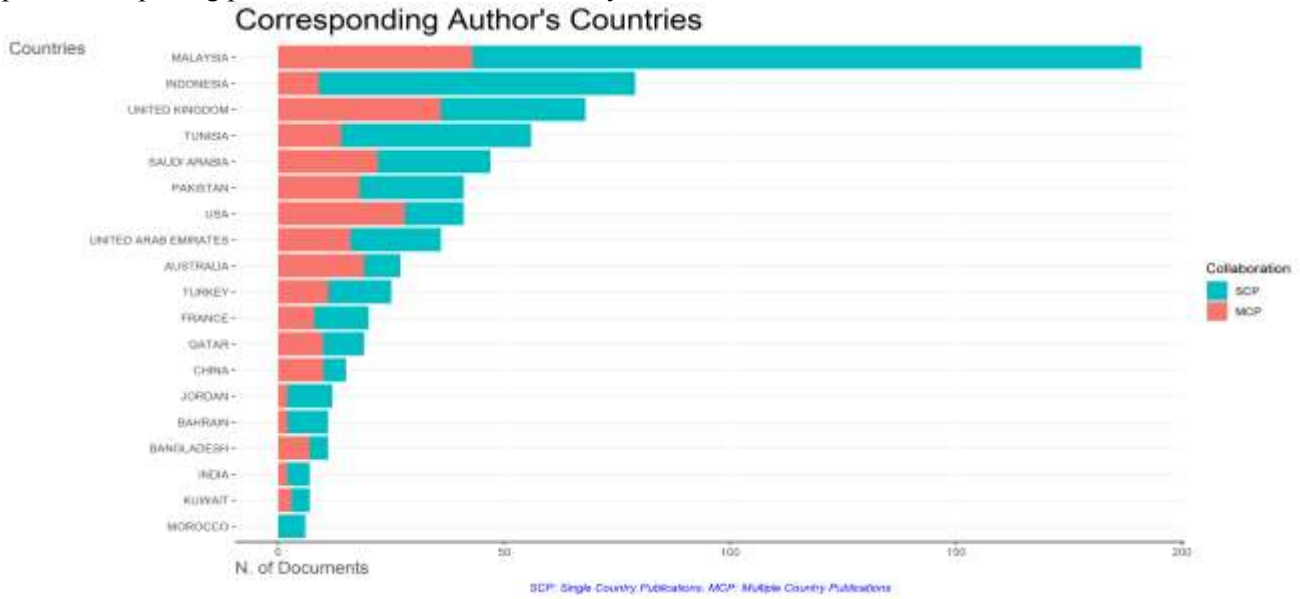


Figure 3. Output by nation According to the corresponding authors, MCP denotes articles that have been published in more than one nation, whereas SCP denotes publications that have been published in only one country.

Figure 4 paints a fascinating picture of the publishing and citation landscape for prominent authors over time. Larger circles, indicating publication count, and darker shades, signifying citation volume, highlight the trajectories of each scholar. Alam N., Ali M., Hassan M.K., Hussainey K., Ibrahim MH., Kabir Hassan M., Kamarudin F., Saito B., Sufian F., and Tabash MI. emerge as key figures. Hassan M.K.

reigns supreme, boasting a staggering peak of 36.5 citations per year in 2022, a testament to his prolific and impactful career. While Sufian F. exhibits consistent output, Tabash MI. has enjoyed a remarkable surge in citations this year, suggesting a rapidly rising influence. This graphic, in essence, captures the dynamic nature of research impact and publication trends for these noteworthy authors.

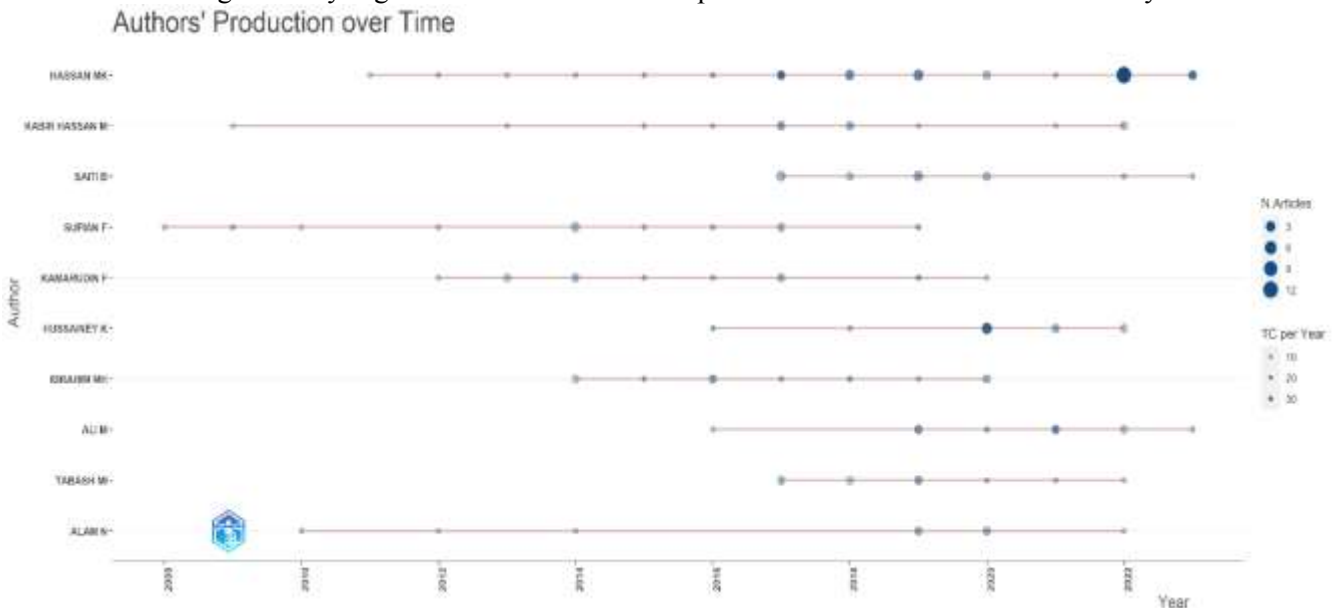


Figure 4. Data on the top authors' publishing and citation rates over time. Note: A larger circle denotes the author's contribution to more articles in that year, while a darker circle denotes a higher number of citations each year.

3.2 Citation review

Figure 5 and Table 3 highlight the most cited articles within the document collection. Taking the top spot with a staggering 831 citations is "Islamic vs. conventional banking: business model, efficiency, and stability" by Beck et al. [1]. Published in the prestigious Journal of Banking and Finance, itself boasting an impressive impact factor of 3.7, this

review article has achieved remarkable success since its 2013 release. The authors' insightful exploration of Islamic banking's business model, efficiency, and stability has clearly resonated with a wide audience, as reflected in the high citation count. This achievement is a testament to both the quality of the research and the journal's standing within the academic community.

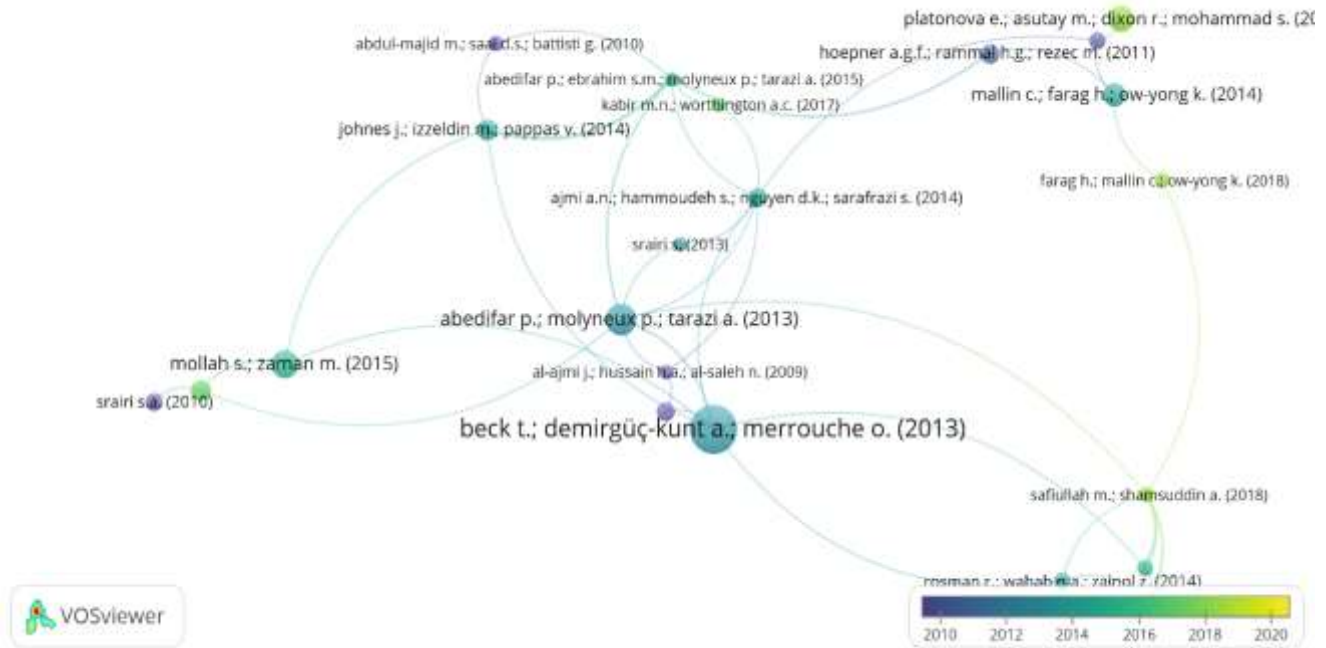


Figure 5. Citation analysis of published works. Notably, it shows an examination of citations to publications, which sheds light on the relevance and regularity of citations as well as academic involvement and impact.

Table 3. Most frequently cited articles on Islamic banking.

| Authors | Author[s] ID | Title | Year | Source title | ISSN | Impact factor | Volume | Issue | Page count | Citations | Affiliations | Countries | Publisher |
|------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------|--------------------------------|----------|---------------|--------|-------|------------|-----------|-----------------------------|----------------|-----------------|
| Beck T.; Demirgüç-Kunt A.; Merrouche O. | 7202649696; 6701762750; 24177217400 | Islamic vs. conventional banking: Business model, efficiency and stability | [1] | Journal of Banking and Finance | 3784266 | 3.7 | 37 | 2 | 14 | 831 | Tilburg University and CEPR | Netherlands | Elsevier |
| Abedifar P.; Molyneux P.; Tarazi A. | 55912491800; 55993541900; 55902430300 | Risk in islamic banking | [2] | Review of Finance | 1573692X | 4.4 | 17 | 6 | 61 | 402 | Université de Limoges | France | Oxford Academic |
| Mollah S.; Zaman M. | 35105398500; 7102724116 | Shari'ah supervision, corporate governance and performance: Conventional vs. Islamic banks | [3] | Journal of Banking and Finance | 3784266 | 3.7 | 58 | N/A | 17 | 321 | Stockholm University | Sweden | Elsevier |
| Platonova E.; Asutay M.; Dixon R.; Mohammad S. | 57190016830; 55158606800; 56983133500; 57190018588 | The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking | [4] | Journal of Business Ethics | 1674544 | 6.1 | 151 | 2 | 20 | 284 | Bolton University | United Kingdom | Springer |

| | | | | | | |
|----------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------|-------------------------------------------|-----------------------------------------------------------------|
| Hoepner A.G.F.; Rammal H.G.; Rezec M. | 55097510800; 14045767000; 55151170800 | Islamic mutual funds' financial performance and international investment style: Evidence from 20 countries | [6] | European Journal of Finance | 14664364 2.5 17 10 21 168 | University of St Andrews United Kingdom Taylor & Francis, |
| Mollah S.; Hassan M.K.; Al Farooque O.; Mobarek | 35105398500; 58076530500; 23088356300; 5942125000 | The governance, risk-taking, and performance of Islamic banks | [7] | Journal of Financial Services Research | 9208550 1.4 51 2 24 186 | Stockholm University Sweden Springer |
| Johnes J.; Izzeldin M.; Pappas V. | 14012840500; 26221299800; 55823128700 | A comparison of performance of Islamic and conventional banks 2004-2009 | [8] | Journal of Economic Behavior and Organization | 1672681 2.2 103 N/A 14 189 | Lancaster University United Kingdom Elsevier |
| Ho C.S.F.; Abd Rahman N.A.; Yusuf N.H.M. | 35118965000; 55875187400; 55875261400; 55874726000 | Performance of global Islamic versus conventional share indices: International evidence | [9] | Pacific Basin Finance Journal | 0927538X 4.6 28 N/A 11 193 | Universiti Teknologi MARA Malaysia Elsevier |
| Hayat R.; Kraeussl R. | 37097184500; 8579858300 | Risk and return characteristics of Islamic equity funds | [10] | Emerging Markets Review | 15660141 4.8 12 2 14 199 | VU University Amsterdam Netherlands Elsevier |
| Mallin C.; Farang H.; Ow-Yong K. | 6603597922; 26032569200; 6505772061 | Corporate social responsibility and financial performance in Islamic banks | [5] | Journal of Economic Behavior and Organization | 1672681 2.2 103 N/A 17 235 | University of Birmingham United Kingdom Elsevier |

Table 3 shines a spotlight on the most influential articles in Islamic banking, highlighting groundbreaking works that have shaped the field. Leading the pack with a staggering 831 citations, Beck et al.'s [1], "Islamic vs. conventional banking: business model, efficiency, and stability" delves into the dynamic interplay between these financial systems. With 402 references, Abedifar et al.'s [2], article "Risk in Islamic Banking" provides insightful information about the particular difficulties Islamic banks face. Mollah and Zaman, [3], contribute significantly to the Journal of Banking and Finance with their piece on "Shari'ah supervision, corporate governance, and performance: conventional vs. Islamic banks." Examining the ethical dimension within the GCC Islamic Banking Sector, Platonova et al.'s [4], "Impact of Corporate Social Responsibility Disclosure on Financial Performance" has garnered 284 citations.

Further enriching the field, Mallin et al.'s [5] "Corporate social responsibility and financial performance in Islamic banks" finds its home in the Journal of Economic Behaviour and Organisation. Hayat and Kraeussl, [10], shed light on Islamic financial products through their study of "risk and return characteristics of Islamic equity funds." The Pacific Basin Finance Journal hosts Ho et al.'s [9],

"Performance of global Islamic versus conventional share indices: International evidence," while Johnes et al.'s [8], valuable insights on "Performance of Islamic and conventional banks 2004–2009" grace the pages of the Journal of Economic Behaviour and Organisation. Finally, Mollah et al.'s [7], analysis of "The governance, risk-taking, and performance of Islamic banks" enriches the Journal of Financial Services Research, and Hoepner et al.'s [6], exploration of "Islamic mutual funds' financial performance and international investment style" provides a global perspective in the European Journal of Finance.

3.2 Visualization of Networks

This section delves into the realm of academic references and co-authorship trends within the field. Figure 6 unveils the intricate web of co-citations between sources, where proximity signifies stronger connections and distance signifies weaker ties. Our analysis of 199 sources yielded a surprisingly low number of 18 links, hinting at a high degree of interjournal interaction. This finding corroborates our existing knowledge: the field of Islamic banking enjoys a vibrant circulation of citations across diverse academic journals.



Figure 6. Co-citation patterns of 18 highly referred journals Out of the 199 publications that were reviewed, connecting lines indicate the presence of citations between journals, and the size of each node corresponds to the number of citations it has received. One measure of how often two journals is cited together is the distance between their nodes.

Figure 7 paints a surprising picture of co-authorship patterns within the field. Analysing data from 971 authors, we discovered a mere 25 collaborative links—a strikingly low figure indicative of minimal research synergy. This stark absence of co-authorship underscores the pressing need for research

institutions to play a more active role in fostering greater collaboration among scholars. By actively promoting and facilitating joint research endeavours, institutions can help bridge the gap and unlock the full potential of this burgeoning field.

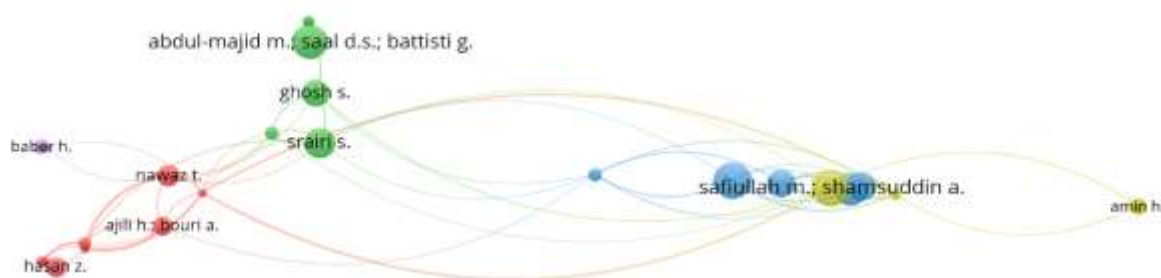


Figure 7. Collaborative Networks of Pioneering Scholars in Islamic Banking Research. Note: intricate web of co-authorship patterns among the most cited researchers in the field of Islamic banking.

3.3 Analysis of Keywords and Cartography

Utilising VOSviewer software, we delved deeper into our initial findings and unearthed fascinating clusters within the literature. Figure 8 unveils the "red cluster," a vibrant hub of terms brimming with Islamic banking terminology. Key concepts like Islamic banks, corporate governance, efficiency, performance, profitability, and others swirl within this cluster, closely intertwined with broader themes like Islamic finance, economic growth, bank performance, sukuk, and Islam itself. This

interconnectedness highlights the pervasive application of Islamic banking principles and methodologies across diverse fields. Notably, data envelopment analysis and clustering, often associated with Islamic banking, find their place within this cluster, demonstrating the versatility of these tools in Islamic banking research. Interestingly, algorithmic trading forms a distinct cluster of its own, with research in this area predating similar explorations in other fields. This isolated cluster hints at the unique trajectory of algorithmic trading within Islamic finance, ripe for further investigation.

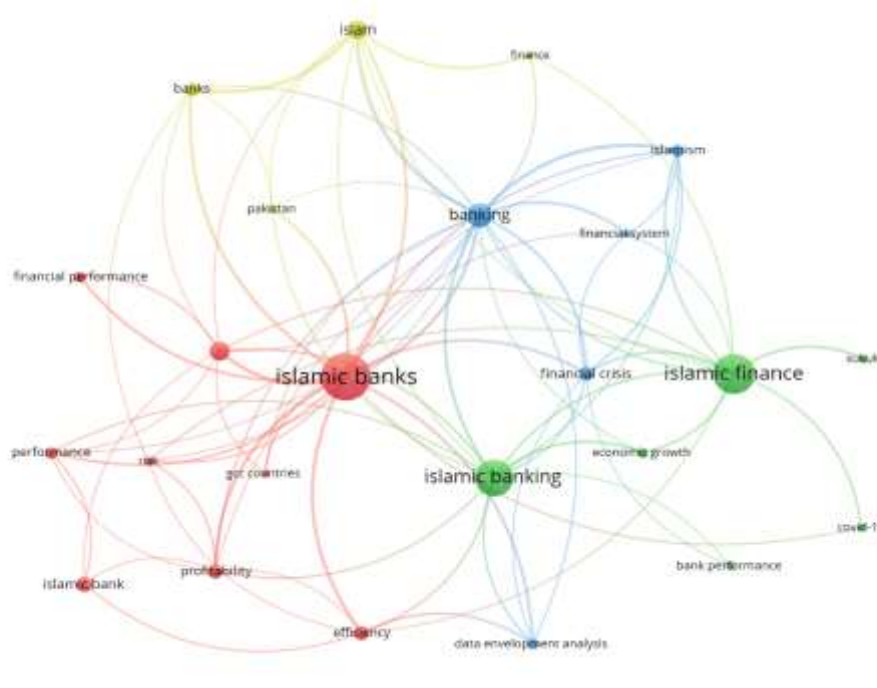


Figure 8. Unveiling Semantic Relationships: Keyword Co-occurrence Networks in Islamic Banking Research. Description: Delving into the intricate fabric of scholarly discourse.

Figure 9 throws the spotlight on the latest research trends, with a vibrant yellow glow highlighting the geographical regions currently under intense investigation. This surge in geographically specific studies reflects the burgeoning importance of Islamic

finance in today's globalised landscape. The graph serves as a powerful visual testament to the growing influence of Islamic financial principles in shaping the economic fabric of diverse nations.

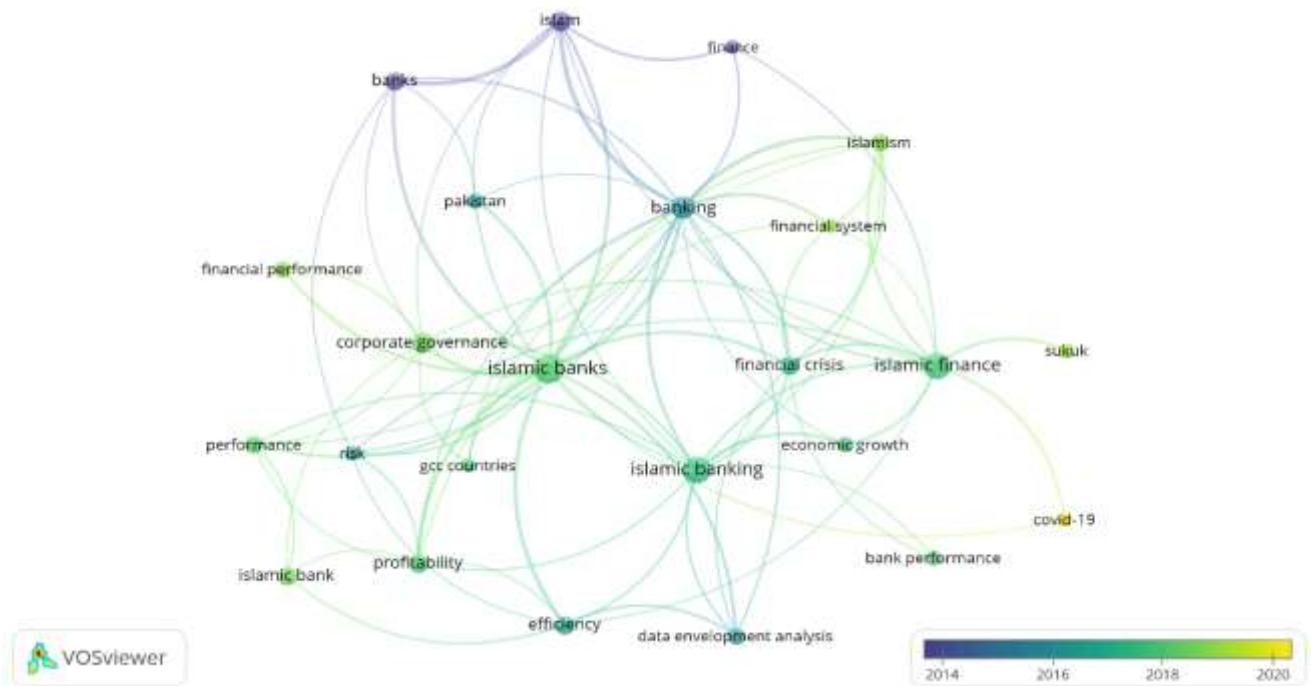


Figure 9. Mapping Semantic Proximity: Visualizing Keyword Overlap in Islamic Banking Research. Description: Figure 9 employs a captivating keyword overlay to visually depict the intricate web of semantic relationships within the domain of Islamic banking research.

Figure 10 presents a compelling three-field plot that zooms in on 20 key sources within the field. This insightful visualisation neatly categorises journals on the left, countries in the centre, and relevant keywords on the right. A quick glance reveals

Malaysia, Indonesia, and the United Kingdom taking the lead as the most prominent nations in this specific domain. On the publication front, the International Journal of Islamic and Middle Eastern Finance and Management reigns supreme, emerging as the most consulted journal in its arena.

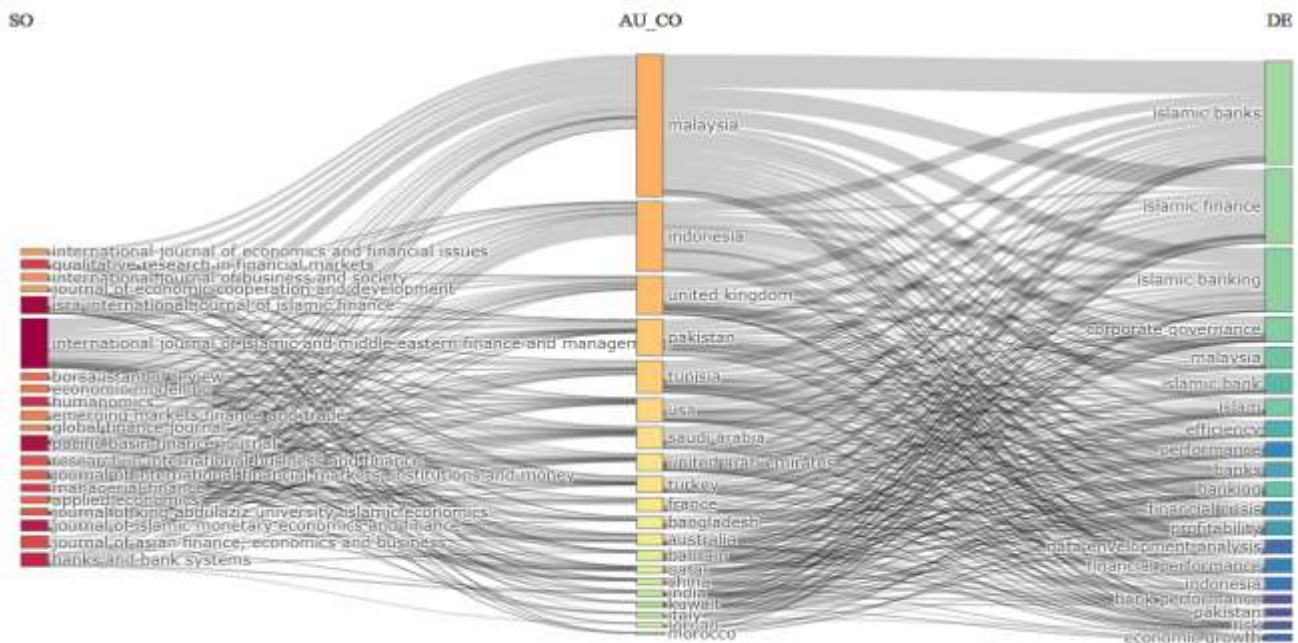


Figure 10. Trilateral Visualization: Unveiling Interconnections Across Journals, Countries, and Keywords. Description: a trilateral visualization unfolds, meticulously unraveling the intricate connections across journals, countries, and keywords in the expansive realm of Islamic banking research.

Figure 11 unveils a treasure map of interconnected themes, guiding us through the heart of the research. At its core lies a cluster where "banking," "Islamism," and "financial crisis" emerge as the most frequent companions [appearing five times each]. Around them, terms like "determinants," "growth," "profitability," "efficiency," and "impact" form a supportive constellation. This cluster reveals the

study's keen focus on the innovative forces driving Islamic banking, ultimately shaping its growth, profitability, efficiency, and resilience amidst financial turmoil. The centrality metrics act as a compass, highlighting the frequency and significance of these terms within the thematic map and solidifying their central role in the research landscape.

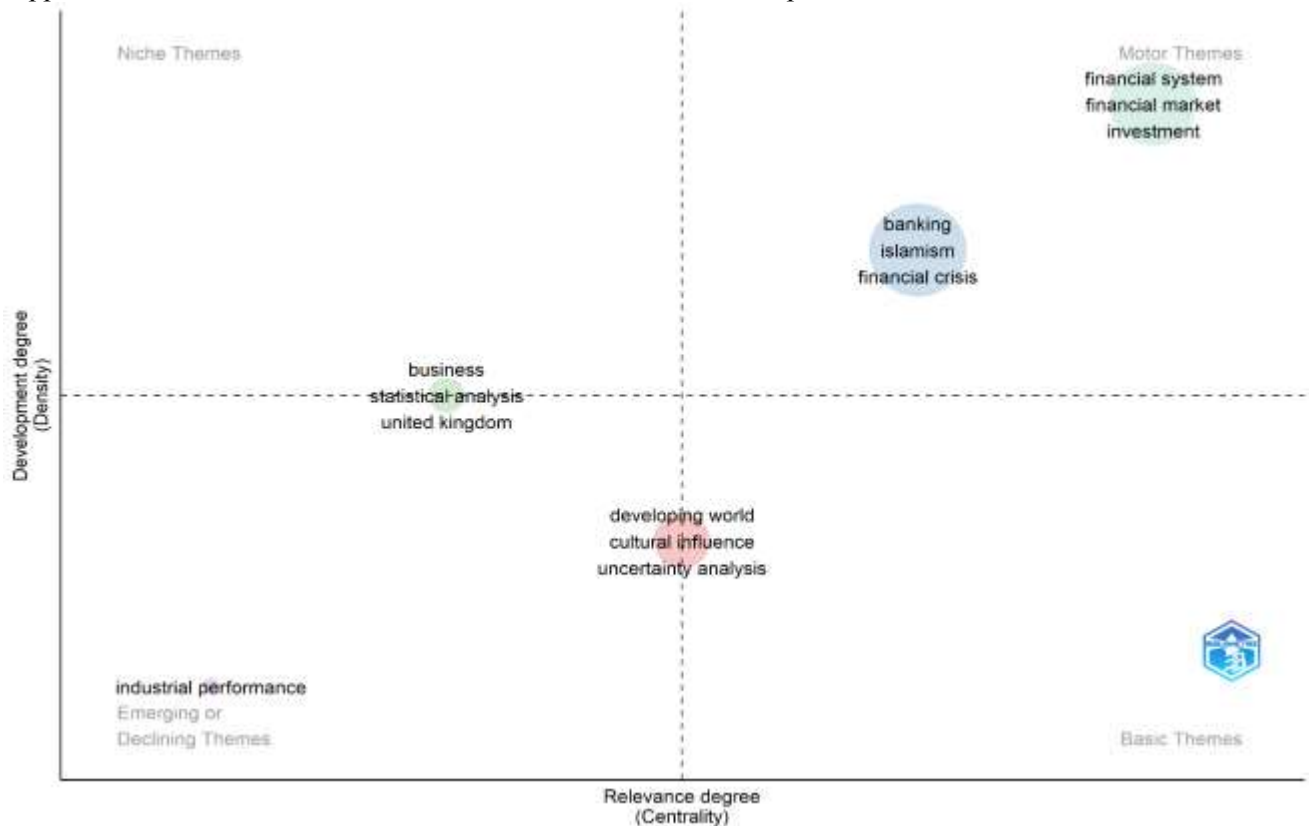


Figure 11. Thematic Map. Description: a thematic map, serving as a visual guide to the dominant themes and subjects within the scope of the depicted scholarly landscape.

3.4 Bibliographic coupling and content analysis

Keyword co-occurrence shows that Islamic finance research is organised into four distinct clusters: Performance and Efficiency looks at how well and efficiently Islamic tools work; Islamic Banking and the Financial System looks at how it works and how stable it could be; Islamic Finance and Economic Growth looks at how it can help the economy grow; and Islamic Finance Navigating Crises looks at how it handles crises and how resilient it is. These threads offer a comprehensive map of the field, guiding researchers and stakeholders towards the current state and future potential of Islamic finance.

3.4.1 Research Stream 1: Islamic Finance: Performance and Efficiency

In the first stream, Islamic finance has captivated researchers' attention, generating a vibrant stream of investigations into its performance, efficiency, and

diverse facets. This pattern, which focuses on comparisons with conventional banking, has provided useful insights into the distinctive traits and resiliency of Islamic financial institutions.

Early research, exemplified by Beck et al. [1], laid the groundwork by comparing the business models, efficiency, and stability of both systems. Abedifar et al. [2], then delved deeper into the risk dynamics within Islamic banking, while Mollah and Zaman, [3], explored how Sharia supervision and corporate governance influence performance differences [37; 38; 39; 40].

The global perspective gradually emerged, with Platonova et al. [4], and Mallin et al. [5] shedding light on the impact of corporate social responsibility [CSR] on financial performance, especially in the Gulf Cooperation Council [GCC] region. Meanwhile, scholars like Ho et al. [9], and Johnes et al. [8], provided evidence of performance disparities

between Islamic and conventional banks, sparking further investigation.

Moving beyond simple comparisons, research also delved into the internal workings of Islamic finance. Ariss, [13], offered a global view of competitive conditions, while Srairi, [14], focused on cost and profit efficiency, particularly in GCC countries. Hassan and Syafri Harahap, [15], highlighted the growing emphasis on ethical practices by examining CSR disclosure in Islamic banks. Rosman and Zain, [16], further enriched the discourse by analysing the efficiency of Islamic banks during the financial crisis in the Middle East and Asia, demonstrating their adaptability in turbulent times [42; 43; 44; 41; 45; 46].

Findings from these studies have shed significant light on the governance, risk-taking behaviour, and overall performance of Islamic banks. Mollah et al. [7]. provided insights into the intricate interplay of governance and risk-taking, while Hoepner et al. [6], studied the financial performance of Islamic mutual funds globally. Notably, Kabir et al. [17], constructed a model of commodity money in Islamic economic jurisprudence, and Kenourgios et al. [47] examined the crucial role of Islamic financial markets during global crises.

3.4.2 Research Stream 2: Islamic Banking and the Financial System

In the second stream, delving into the Intricate World of Islamic Banking Within the Broader Financial System, scholars have extensively explored crucial themes like business models, efficiency, stability, risk, and governance. Beck et al. [1], laid the groundwork by meticulously comparing these aspects in Islamic and conventional banks, illuminating the unique characteristics of the Islamic financial framework.

This global trend in Islamic banking research is characterised by a growing appetite to understand its distinctive features and worldwide influence. Hoepner et al. [6], for instance, delve into the financial performance of Islamic mutual funds across a vast array of 20 countries, enriching our understanding of Islamic finance's international reach [44; 38; 37; 41; 39].

Moving beyond simple comparisons, scholars like Mollah and Zaman, [3], delve deeper into the internal workings of Islamic banking, emphasising the critical role of Shari'ah supervision, corporate governance, and risk-taking behaviour in influencing performance. Farag et al. [48], further contribute by shedding light on innovative governance structures like the dual board model in Islamic banks.

The resulting findings offer invaluable insights into the governance, risk management, and overall

performance of these institutions. Mollah et al. [7]. intricately dissect the interplay between governance and risk-taking in Islamic banks, while Safiullah and Shamsuddin [49], explore the intricate link between risk and corporate governance within this framework. Finally, Abedifar et al. [50], provide a comprehensive roadmap for future research, outlining promising avenues to further our understanding of Islamic banking and finance.

3.4.3 Research Stream 3: Islamic Finance and Economic Growth

In the third stream, unravelling the intricate web between Islamic finance and economic growth, scholars have honed in on key themes like business models, efficiency, stability, risk, and governance. Beck et al. [1], set the stage by comparing these aspects in Islamic and conventional banking, highlighting how Islamic finance's unique structure can potentially contribute to economic stability and growth.

This global trend reflects a burgeoning interest in understanding how Islamic financial instruments fuel economic development. Hoepner et al. [6], for instance, meticulously dissect the financial performance of Islamic mutual funds across 20 nations, offering valuable insights into Islamic finance's international reach and potential impact [42; 43; 40; 45; 46].

Moving beyond mere comparisons, scholars delve into the internal workings of Islamic finance, emphasising the critical role that Shari'ah supervision, corporate governance, and risk-taking behaviour play in its contribution to economic growth. Mollah and Zaman, [3], shed light on how these factors influence performance in Islamic banks compared to conventional ones, while Farag et al. [48], bring attention to innovative governance structures like dual boards and their potential to foster economic development.

The resulting findings offer invaluable insights into the governance, risk management, and overall performance of Islamic finance, all with an eye on economic growth. Mollah et al. [7]. intricately dissects the interplay between governance and risk-taking in these institutions, while Safiullah and Shamsuddin, [49], explore the intricate link between risk and corporate governance within this framework. Finally, Abedifar et al. [50], provide a comprehensive roadmap for future research, outlining promising avenues to further our understanding of Islamic finance's impact on economic growth.

3.4.4 Research Stream 4: Islamic Finance and Financial Crises

In the fourth stream, navigating the turbulent waters of financial crises, Islamic finance has attracted

significant research attention, with key themes like business models, efficiency, stability, risk, and governance taking centre stage. Beck et al. [1], shed light on the distinct features of Islamic banking compared to its conventional counterpart, particularly its efficiency and stability during economic downturns.

This global trend extends beyond mere comparisons, delving deeper into the broader implications of Islamic finance in times of crisis. Rosman et al. [51], provide valuable insights by analysing the efficiency of Islamic banks during the financial crisis, highlighting their resilience and performance in the face of adversity [40; Huson, et al. 2024; 45; 46].

Within the Islamic finance realm itself, scholars meticulously dissect specific elements like Shari'ah supervision, corporate governance, and risk-taking to understand their influence on crisis response. Mollah et al. [7], shed light on the intricate interplay between governance, risk-taking, and overall performance in Islamic banks, contributing to our understanding of their potential role in mitigating financial crises.

Empirical evidence adds further depth to this discourse. Safiullah and Shamsuddin [49], delve into the intricate connection between risk management and corporate governance in Islamic banking, revealing the risk mitigation strategies employed by these institutions during crises [43; 40; Huson, et al. 2024; 45; 46]. Abedifar et al. [50], provide a comprehensive overview of recent research, paving the way for future investigations into the dynamic interplay between Islamic finance and financial crises.

3.5 Country-wise Statistical Distribution: Analyzing Variations in Key Metrics

Unveiling the intricate network of collaboration in Islamic banking research, Figures 12 and 13 paint a fascinating picture. At the heart of this global endeavour lie the United States, the United Kingdom, and Malaysia, acting as the pivotal nodes connecting researchers across borders. Their substantial co-authorship patterns solidify their role as the backbone of international collaboration in this field.

Intriguingly, the evidence suggests a burgeoning partnership between Saudi Arabia and Australia, further strengthened by the involvement of UK academics. This constellation hints at the emergence of new collaborative hubs, driven by the shared challenges and opportunities presented by the global nature of Islamic finance.

This pattern of co-authorship underscores the critical need for international cooperation in tackling the complexities of Islamic banking. By joining forces, major economic powers like Malaysia, the United Kingdom, and the United States can leverage their knowledge and expertise to address pressing issues facing this dynamic financial system. Through collaborative research, they can pave the way for more effective solutions that benefit the global Islamic finance landscape.

In essence, these figures offer a glimpse into the collaborative spirit driving Islamic banking research forward. By fostering cross-border partnerships and sharing knowledge, researchers worldwide are laying the groundwork for a more robust and resilient Islamic financial system that can navigate the challenges and capitalise on the opportunities of the globalised world [29].

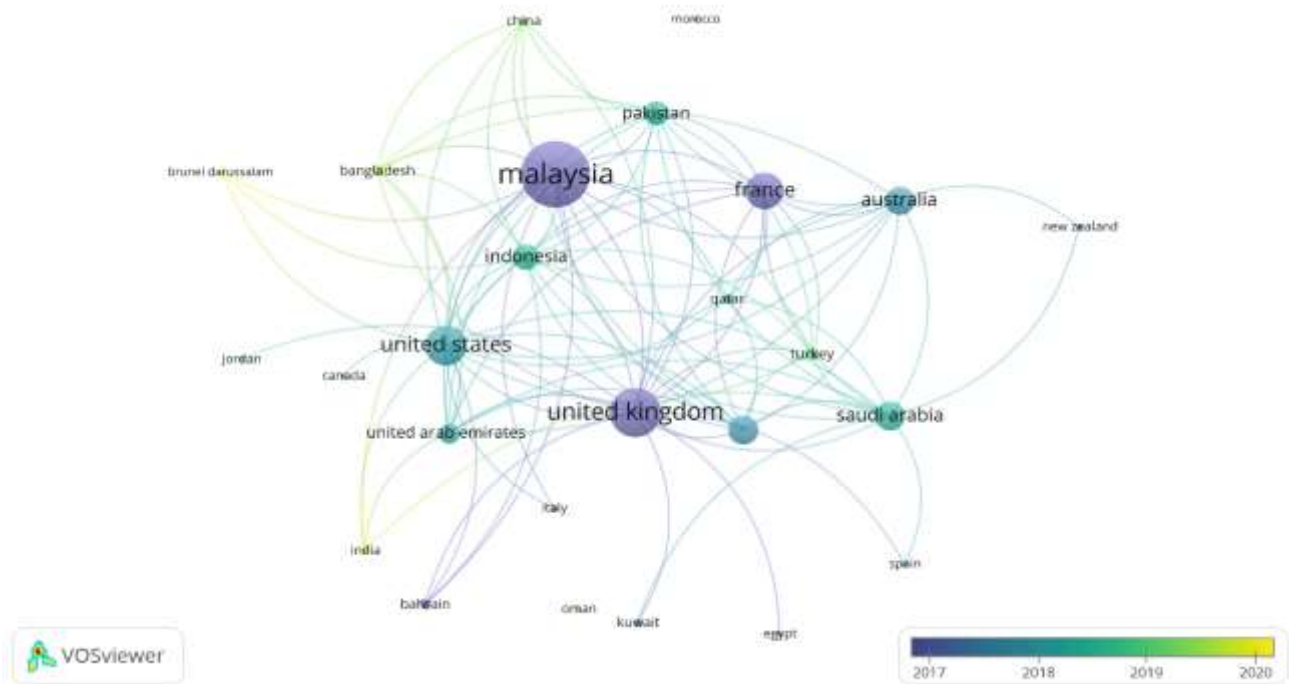


Figure 12. Geographic Spread Visualization: Mapping Statistical Distribution across a Defined Area

Country Collaboration Map

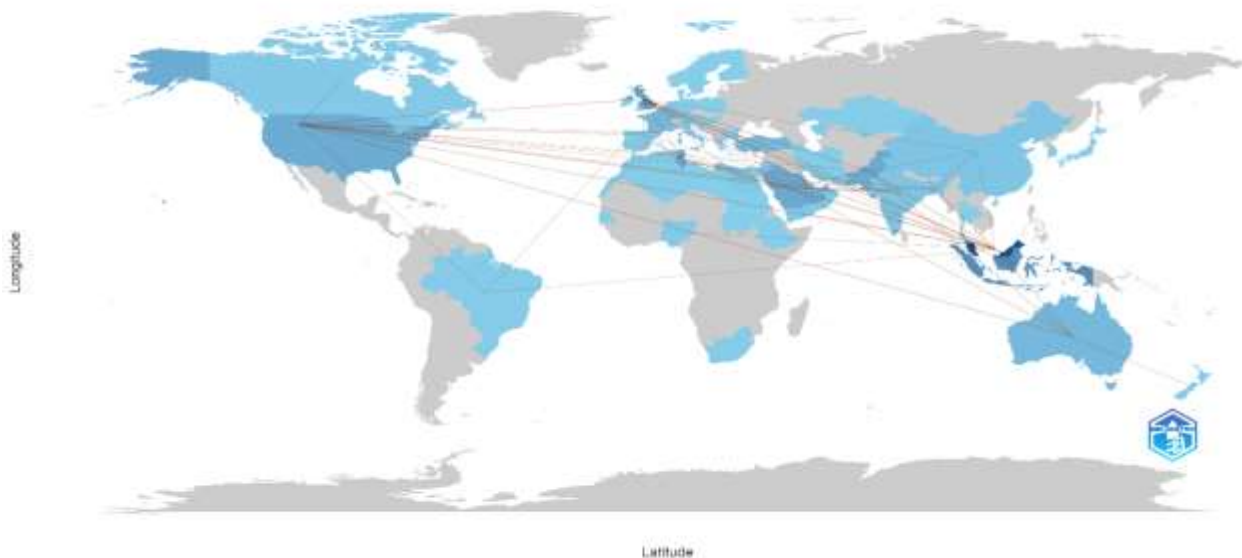


Figure 13. Global Collaboration and Production Networks: Mapping Interconnected Innovation and Productivity Worldwide

3.6 Major Insights and Sustainability Contributions Unveiled by the Literature Streams

Islamic finance research has woven a rich tapestry of knowledge, illuminating its performance, efficiency, and diverse economic impacts. Scholars like Beck et al. [1], laid the groundwork by meticulously comparing Islamic and conventional banking models, paving the way for deeper investigations into risk

dynamics, Sharia supervision, and governance by Abedifar et al. [2], and Mollah and Zaman, [3]. These studies revealed the unique traits and resilience inherent in Islamic financial institutions.

Expanding the global perspective, Platonova et al. [4], and Mallin et al. [5], explored the link between corporate social responsibility [CSR] and financial performance, particularly in the Gulf Cooperation Council region. Meanwhile, Ho et al. [9], and Johnes

et al. [8], identified performance disparities between Islamic and conventional banks, sparking further inquiry.

Delving deeper, the second research stream explored the intricate relationship between Islamic banking and the broader financial system. Beck et al. [1], again laid the foundation, highlighting the distinct characteristics of the Islamic financial framework through comparisons of key aspects like efficiency, stability, and governance. Hoepner et al. [6], then enriched our understanding of Islamic finance's global reach by analysing the performance of mutual funds across 20 countries. Mollah and Zaman, [3], and Farag et al. [48], further illuminated the internal workings of Islamic banking by emphasising the crucial roles of Sharia supervision, corporate governance, and risk-taking behaviour.

The third research stream delved into the intricate dance between Islamic finance and economic growth. Beck et al. [1], set the stage by highlighting the potential of Islamic finance to contribute to economic stability and growth. Hoepner et al. [6], furthered this understanding by dissecting the performance of Islamic mutual funds across nations, offering valuable insights into their international reach and potential impact on development. Mollah and Zaman, [3], and Farag et al. [48], shed light on how specific elements like Sharia supervision and corporate governance influence performance compared to conventional banks, with a focus on fostering economic development.

Finally, the fourth research stream examined Islamic finance's response to financial crises. Beck et al. [1], again emphasised the distinct features of Islamic banking, particularly its efficiency and stability during economic downturns. Rosman et al. [51], provided valuable evidence of this resilience by analysing the performance of Islamic banks during the financial crisis. Scholars like Mollah et al. [7], and Safiullah and Shamsuddin [49], then delved deeper into specific elements like Sharia supervision, corporate governance, and risk-taking, contributing to our understanding of Islamic banks' potential role in mitigating financial crises. Abedifar et al. [50], provided a comprehensive overview of recent research, paving the way for future investigations into the dynamic interplay between Islamic finance and financial crises.

3.7 Emerging Avenues: Future Research Trends in Performance, Efficiency, and Sustainability in Islamic Banks

As Islamic finance strides forward, future research holds immense potential to illuminate its performance, efficiency, and sustainability. While

existing work lays a solid foundation, exciting new avenues beckon exploration.

- a) **Fintech Integration:** With technology's rapid advance, examining its integration with Islamic banking offers fertile ground. How Fintech aligns with Sharia principles, enhances efficiency, and influences performance is a crucial question, paving the way for a more technologically-driven future [51; 17].
- b) **ESG and Ethical Finance:** The global embrace of sustainable and responsible business practices calls for research into integrating Environmental, Social, and Governance [ESG] factors within Islamic finance. Investigating the impact of socially responsible practices on performance can contribute significantly to the discourse on ethical finance [4; 48].
- c) **Dynamic Risk Management:** Given the ever-changing nature of financial markets, a deeper understanding of risk management strategies employed by Islamic banks is crucial. Research can focus on adaptive frameworks that bolster resilience against evolving risks and potential crises [49; 7].
- d) **Cross-Cultural Perspectives:** As Islamic finance transcends borders, exploring cross-cultural perspectives on its implementation is key. Understanding how cultural nuances influence performance and acceptance can provide a comprehensive view of its global impact [12; 47].
- e) **Sustainable Economic Growth:** While the link between Islamic finance and economic growth has been explored, future studies can delve deeper into the specific mechanisms driving this relationship. Examining how Islamic financial instruments contribute to sustainable development, including fostering entrepreneurship, job creation, and inclusive growth, is an exciting avenue [1; 6].
- f) **Comparative Analysis in the Digital Era:** As both Islamic and conventional banking navigate the digital age, a comparative analysis of their digital strategies provides valuable insights. Examining the efficiency, performance, and customer acceptance of digital banking services in the context of Islamic finance can inform future development [1; 13].
- g) **Macroprudential Regulation:** Ensuring the stability of Islamic financial institutions through effective macroprudential regulation is critical. Research can explore how regulatory frameworks align with Islamic principles and contribute to the overall resilience of Islamic banks during economic challenges [52; 2].

3.8 Bridging the Gap: Practical and Theoretical Ramifications of Performance, Efficiency, and Sustainability in Islamic Banks

Islamic finance research has woven a rich tapestry of knowledge, illuminating the performance, efficiency, and sustainability of its institutions. Early work by Beck et al. [1], established a crucial foundation by comparing Islamic and conventional banking models, paving the way for deeper investigations into risk dynamics, governance structures, and the impact of corporate social responsibility [CSR]. These studies, like those by Abedifar et al. [2], and Mollah and Zaman, [3], shed light on the unique strengths and adaptability of Islamic finance, particularly during turbulent economic times like the financial crisis.

As research progressed, scholars delved deeper into the intricate workings of Islamic banking within the broader financial ecosystem. Hoepner et al. [6], and Farag et al. [48], played key roles in highlighting the critical role of Shari'ah supervision, corporate governance, and risk-taking behaviour in shaping the performance of Islamic banks. Their valuable insights provide crucial information for stakeholders and policymakers, offering a comprehensive picture of the governance, risk management, and overall performance of these institutions.

The intricate relationship between Islamic finance and economic growth has also been a central focus. Beck et al. [1], set the stage for this exploration, and subsequent studies by Hoepner et al. [6], and Mollah and Zaman, [3], provided valuable insights into the international reach and potential impact of Islamic finance on economic development. These findings underscore the importance of factors like Shari'ah supervision and corporate governance in fostering economic prosperity. Abedifar et al. [50], further fueled this research by outlining promising avenues for future investigations, highlighting a growing interest in understanding Islamic finance's contribution to economic growth.

4. Conclusion

Using a bibliometric approach, this research looked at Islamic banking by reviewing 1,031 Scopus-indexed articles published between 2008 and 2023. Beginning in 2020, the data showed a startling upward trend in the number of publications. Important areas of study included Islamic banking and finance, Islamic finance and economic growth, Islamic finance and financial crises, and Islamic finance: performance and efficiency. Authors from

the US, UK, and Malaysia quickly rose to the top in their fields.

In light of the present performance, efficiency, and sustainability issues, the paper highlights the growing significance of Islamic banking as a solution. A rising number of publications show that people are becoming more interested in Islamic banking, and the diversity of topics covered in these studies is indicative of the complexity of the challenges that this sector faces.

There was no evaluation of the efficacy of various performance, efficiency, and sustainability measures in Islamic banking methodologies in this study. If we want to know how to best handle the issues of performance, efficiency, and sustainability in Islamic banks, we need to look at how different tactics have fared in the past.

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Contribution of Individual Authors to the Creation of a Scientific Article [Ghostwriting Policy]

Rula Airout and Sari Malahim conducted the literature review and data collection process, gathering 1,031 publications from Scopus-indexed journals published between 2008 and 2023.

Mohammad Zakaria Alqudah contributed to the data analysis phase, utilizing various tools such as Excel, RStudio, and VOSviewer to sort and analyze the data on nations, institutions, sources, papers, and authors. Hanan Qudah was involved in synthesizing the findings and interpreting the results, particularly focusing on the trends, research gaps, and implications of the study.

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The authors equally contributed in the present research, at all stages from the formulation of the problem to the final findings and solution.

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Conflict of Interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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