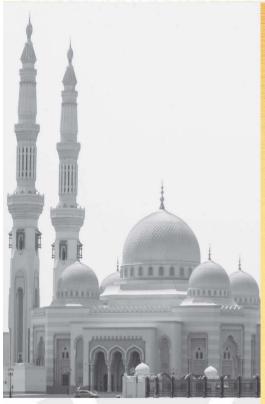
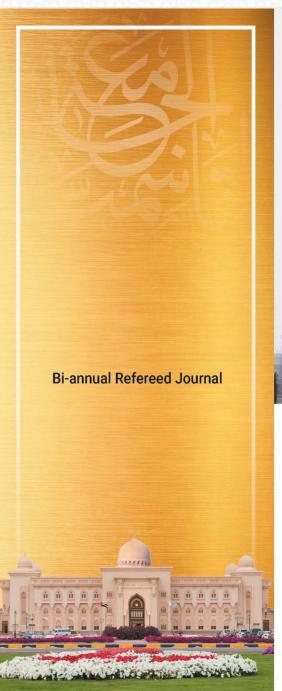
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مراجعة الإطار المعرفي والبنية المفاهيمية لأدبيات المصرفية الإسلامية

REVIEW OF KNOWLEDGE FRAMEWORK AND CONCEPTUAL STRUCTURE OF ISLAMIC BANKING¹

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الملخص

تُعدّ الصيرفة الاسلامية مجالاً متعدد التخصصات، حيث تدمج كلا من تخصص الأعمال المصرفية، وتخصص فقه المعاملات باستخدام النماذج الرياضية، والإحصائية والاقتصادية والمالية. تقوم الصيرفة الإسلامية على تطوير المعاملات المالية وفقاً لأحكام الشريعة الإسلامية، وبالتالي، فهي لا تركز على النتائج المالية لعملياتها فحسب، ولكن تمتد لتصل إلى تعزيز استدامة وإنتاجية الاقتصاديات التي تعمل فيها. من هنا هدفت هذه الدراسة إلى مراجعة ببليومترية منهجية شاملة لأدبيات الصيرفة الإسلامية وذلك باستخدام لغة البرمجة (R)، حيث قامت الدراسة الحالية بتجميع الأدبيات السابقة التي بلغ عددها 3285،

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المنشورة في قاعدة بيانات سكوبس (Scopus)، في الفترة الممتدة من شهر كانون الثاني من العام 1983 إلى شهر تشرين الأول من العام 2021. قام البحث بوصف منهجي للأدبيات الأكثر تأثيراً في المصرفية الاسلامية، وأهم المصادر والمراجع التي اعتمدت في نشر أبحاث المصرفية الإسلامية. وتناولت أيضاً الدول الفاعلة في البحث العلمي للمصرفية الإسلامية، وقُدِّمَتْ فيها نظرة تحليلية لأنماط الأبحاث الحالية والاتجاهات البحثية المستقبلية في المصرفية الإسلامية. أحدثت الأزمة المالية العالمية قفزة ثورية في العمل المصرفي الإسلامي، وبالتالي البحث العملي في المصرفية الإسلامية، بديلًا قابلًا للتطبيق للنظام المصرفي الربوي. وتكمن أصالة البحث في أنه يقدّم أساساً متيناً للبحوث المستقبلية في الصيرفة الإسلامية.

Abstract

Islamic banking is a multidisciplinary field that integrates banking and figh muamalat using mathematical, statistical, computational, and economic models. Islamic banking is dependent on the development of Islamic financial transactions for its growth. Islamic banking applications in are emerging not only as means of enhancing financial results but also as means of enhancing the sustainability and productivity of the economy. This paper aims to conduct a comprehensive systematic bibliometric analysis of Islamic banking literature. It starts by finding 3,285 documents published in the Scopus database from January 1983 to October 2021. This paper, using bibliometric analysis, describes the most significant literature, denotes the related discipline fields, and offers insight into the existing research patterns and possible future trends in Islamic banking. The financial crisis has revolutionised Islamic banking as an interesting alternative to the fragile current banking system. The findings establish a solid grounding for future research in the field of Islamic banking.

الكلمات المفتاحية: المصرفية الإسلامية، لغة البرمجة R، حزمة (Bibliometrix)، التحليل الببليومتري المنهجي.

Keywords: Islamic Banking; *Bibliometrix* R package; Systematic Bibliometric Analysis.

1.0 Introduction

The effect of the financial crisis has revolutionized many financial industries, which is especially true for the banking sector. It increased the demand for financial reform, which expanded on the old markets, created new ones, and disrupted many others. One of the alternatives is the Islamic banking system. While the banking system's primary goals have not changed, the Islamic banking system has affected the method and structure of the process. New economic models, governance, and structural approaches are all found to create new transactions and operational systems that comply with Islamic principles. Islamic banking is involved with financing systems, strategic and operational planning, administrative functions, data processing, information retention, resource allocation, calculating risk, and lastly, secure interaction among Islamic banking stakeholders (Bayram & Altarturi, Islamic finance education excellence framework, 2018).

Islamic banking integrates *fiqh Muamalat* (jurisprudence of transactions) with the banking and finance field to deliver sharia-compliant financial services that seek to compete with conventional methods. It is a relatively new emerging sector that utilizes Islamic financial transactions to ensure growth and stability in the banking sector. Therefore, Islamic banking is a multidisciplinary field that integrates finance and *fiqh Muamalat* through technological, statistical, computational, and economic models. Some of the modes of Islamic banking include *Murabahah* (cost-plus), *Ijara* (leasing), *Mudarabah* (profit-sharing and loss-bearing), *Musharaka* (joint venture), *Salam* (deferred delivery for immediate payment), *Istisna*' (manufacture), *Tawarruq* (involving selling on a deferred basis), and much more of supporting contracts (Bayram & Altarturi, Islamic finance education mapping analysis, 2020).

Due to the Islamic banking development over the last years, the Islamic banking system has attained a different prevalence in the global banking industry. Thus, several related aspects of the development of the Islamic banking industry are attracting more attention from various financial quarters and specialists internationally. One of the aspects of Islamic banking that has greater attention is research and publication. This leads to the development of

the knowledge framework and conceptual structure of Islamic banking (Bayram & Altarturi, The development path of Islamic finance education from Islamic economics to Islamic finance, 2020).

The number of Islamic banking publications is mounting quickly, and it is becoming gradually impractical to stay up-to-date with everything that is being published. This curbs the capability to accumulate knowledge and efficiently gather evidence through a set of preceding literature. Therefore, researchers use various qualitative and quantitative literature reviewing methodologies to understand and organize previous studies. Among these techniques, bibliometric analysis. It provides a structured analysis of big data based on the statistical measurement of science, scientists, or scientific activity to present the 'big picture of the literature.

This paper aims to conduct a comprehensive systematic bibliometric analysis of Islamic banking literature. Bibliometric analysis is designed to distinguish the most appropriate works, define relevant study fields, give perception about existing research trends, and offer direction for future studies. The following sections start with a description of the methodological procedures used in bibliometric research. The third section of this chapter discusses the bibliometric analysis's results. The last section discusses, summarises, and concludes the paper.

2.0 Methodology

In its main focus, the literature review recap and evaluate the existing literature on a specific area to highlight potential gaps and limitations in that area. Typically, current works complete systematic literature reviews recursively, starting with the development of keywords of the survey, accompanied by the literature review and result evaluation. Bibliometric analysis is usually completed following three stages: developing keywords and search terms, running the analysis and generating the information and the dataset, and finally, summarizing and evaluating the results (Fahimnia, Sarkis, & Davarzani, 2015).

Variety databases are available for accessing a reliable research paper. One of the most interesting databases is Scopus (Altarturi, Saadoon, & Anuar, 2020). Scopus is the world's largest publication and citation database for peer-reviewed publications in several

academic fields and resources (Elsevier, 2021). Taking that into consideration, the Scopus database was chosen as a source of data for collecting previous pieces of literature.

In this work, the keywords on Islamic banking were combined to collect the previous literature on the knowledge framework, which was preforms on October 6, 2021. This study built the following search query string: TITLE-ABS-KEY ("islamic bank*" OR "sharia* bank*" OR ("participation bank*" AND turkey) OR ((musharaka* OR mudaraba* OR ijara* OR murabaha* OR salam OR istisna* OR tawarruq OR "profit-loss sharing") AND bank*)).

The systematic bibliometric review of the collected information was completed using the statistical computing program R. R is an open-source programming language that includes many packages for performing an effective and high-quality bibliometric review. In light of this, the current research used the *Bibliometrix* R package (Aria & Cuccurullo, 2017). This package has been applied in a variety of research and fields for bibliometric research (Altarturi, Saadoon, & Anuar, 2020; Altarturi, Altarturi, & Othman, 2022; Aria, Alterisio, Scandurra, Pinelli, & D'Aniello, 2020; Aria, Misuraca, & Spano, 2020; Cuccurullo, Aria, & Sarto, 2016).

3.0 Results and Discussion

The data collected to conduct a bibliometric review contains 3285 documents gathered from the Scopus database. This section presents the result of the data after analysis using *Bibliometrix* R-package for producing descriptive analyses, statistical graphs, and science maps. The section contains four subsections: main information, knowledge structure, intellectual structure, and conceptual structure.

3.1 Main Information

The main information contains descriptive statistics about the bibliometric dataset of Islamic banking as shown in Table 1 and Table 2, the main statistics of 3,285 documents written from 1983 till 2021. The bibliometric dataset of Islamic banking comes from 787 sources that contain journals, books, book series, conference proceedings and trade journals. The dataset presented in this research contains 5,034 writers, 620 of whom wrote single-authored documents and 4,414

collaborated with other authors. The proportion of authors and coauthors per document was 2.47 and 1.81, respectively.

Table 1: Main Information about the Collection

Category	Detail	Results
	Timespan	1983:2021
Main Info	Sources (journals, books, etc.)	798
Main Inio	Documents	3,285
	References	128,527
	Single-authored documents	842
	Documents per author	0.65
	Authors per document	1.53
Collaboration and	Co-authors per documents	2.47
Citations	Collaboration index	1.81
	Average years from publication	4.99
	Average citations per documents	9.05
	Average citations per year per doc	1.36

Accordingly, Table 2 shows more details regarding the sources, documents, and authors of literature items in the analysed dataset. It shows that the bibliometric dataset contains 5,586 authors' keywords. Interestingly, 1,273 were observed as Keywords Plus - terms or expressions that make appearances in a document's bibliography's titles but not in the document's title.

The bibliometric dataset showed that most of the document types found were from articles that represent more than 81 per cent of the data, followed by conference paper, review and book at 6 per cent, 5 per cent, and 3 per cent, respectively. The significant differences between the numbers of articles and the numbers of other resources call researchers' attention and indicate a high scholarly value of the literature in the field of Islamic banking.

Table 2: Collection's Sources, Documents and Authors

Category	Detail	N	%
	Journal	2,816	85.72
	Book	245	7.46
Source Type	Conference Proceeding	145	4.41
	Book Series	77	2.34
	Trade Journal	2	0.06
	Article	2,685	81.74
	Book Chapter	206	6.27
	Conference Paper	187	5.69
	Review	117	3.56
	Book	55	1.67
	Conference Review	12	0.37
D T	Editorial	7	0.21
Document Types	Erratum	6	0.18
	Note	3	0.09
	Business Article	2	0.06
	Letter	2	0.06
	Data Paper	1	0.03
	Short Survey	1	0.03
	Retracted	1	0.03
Document	Keywords Plus (ID)	1,273	18.56
Contents	Author's keywords (DE)	5,586	81.44
	Author appearances	8,124	161.38
	Authors	5,034	100.00
A	Authors of multi-authored	4,414	87.68
Authors	documents		
	Authors of single-authored	620	12.32
	documents		

Figure 1 presents the annual scientific production of Islamic banking literature. As shown, the annual growth rate in Islamic banking literature is 17 per cent. For more than seven years, they were starting from 1983 a low level of scientific production, with less than two

documents per year. However, a high jump in the scientific production occurred in 1990 with eighteen papers, but this growth soon became idle again for more than 12 years with less than five papers per year. In 2007, significant development began with a stable scientific production around 211 per year, with the trend to remain. This development results from academia's and industry's greater focus on the issues and trends of Islamic banking, especially after the wake of the financial crisis of 2007–2008, where Islamic banking and finance have gain popularity. Before that, Islamic banking research was not that widespread where the dramatic increase in Islamic banking research began in 2007 with 32 papers.

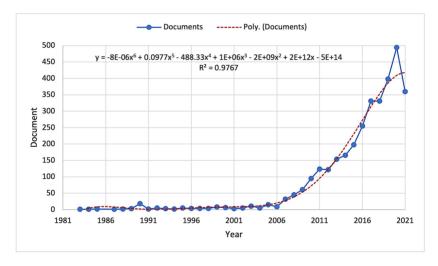


Figure 1: Annual Scientific Production

Figure 2 illustrates the average document citations, which contains average citations per document, average citations per year, and citable years. Average document citations are a helpful tool for evaluating the yearly scientific production impact. Average citations per document show that the most citable document was in 1998, while 2006 was the most citable year, indicating the significant impact of the scientific output of that year.

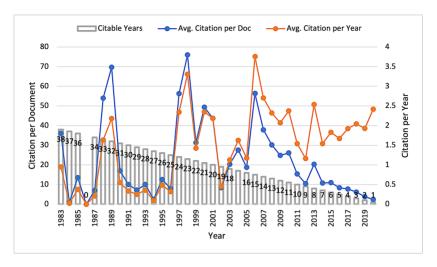


Figure 2: Average Document Citations

3.2 Knowledge Structure

3.2.1 Sources

There are more than 798 different sources found publishing-related work of Islamic banking. However, more than 87% of these resourcing includes only one literature item; meanwhile, core sources, around 22 of the total sources published nearly 2.8 % of the literature items. Notably, only five sources are specialized in Islamic banking and finance, while the rest of the top core sources are in conventional finance specialization. It is worth mentioning that Islamic banking and finance journals have not appeared in the sourcing till late 2008, while conventional sources have been found in the field since 1988. Despite the late start by the international journal of Islamic and middle eastern finance and management, it published more than 186 documents, which is the highest number of literature items and the highest impact.

Table 3: Impact of the Core Sources²

Rank	Sources	TP	SY	Н	G	M	CD	TC
1	International Journal of	186	2008	25	37	1.79	169	2,306
	Islamic and Middle Eastern							_,
	Finance and Management							
2	Journal of Islamic	158	2010	16	28	1.33	119	1,126
	Accounting and Business							,
	Research							
3	Journal of Islamic Marketing	125	2010	19	31	1.58	98	1,295
4	Journal of King Abdulaziz	54	2009	6	12	0.46	25	173
	University, Islamic							
	Economics							
5	Banks and Bank Systems	53	2006	7	12	0.44	38	202
6	Humanomics	45	1996	15	27	0.58	44	798
7	International Journal of	39	1988	21	37	0.62	37	2,081
	Bank Marketing							
8	Pacific Basin Finance	37	2009	17	33	1.31	36	1,125
	Journal							
9	International Journal of	35	2019	1	1	0.33	5	6
	Innovation, Creativity and							
	Change							
10	ISRA International Journal	35	2017	7	8	1.40	24	111
	of Islamic Finance							
11	Qualitative Research in	35	2010	10	16	0.83	30	338
	Financial Markets							
12	Journal of Asian Finance,	33	2019	8	10	2.67	21	137
	Economics and Business							

² Core sources according to Bradford's Law.

Rank	Sources	TP	SY	Н	G	M	CD	TC
13	Managerial Finance	33	1999	11	21	0.48	31	469
14	Arab Law Quarterly	32	1985	7	10	0.19	22	141
15	Jurnal Pengurusan	30	2009	6	9	0.46	22	113
16	International Journal of	29	2015	3	4	0.43	11	25
	Economic Research							
17	International Journal of	28	2013	9	13	1.00	25	215
	Economics and Financial							
	Issues							
18	Al-Shajarah	23	2015	2	3	0.29	10	16
19	Advanced Science Letters	22	2015	2	2	0.29	10	18
20	International Journal of	22	2015	2	3	0.29	10	18
	Applied Business and							
	Economic Research							
21	International Journal of	22	2018	2	3	0.50	8	15
	Financial Research							
22	Research in International	21	2015	13	21	1.86	21	447
	Business and Finance							

TP: Total Publication; SY: Starting Year; H: h-index; G: g-index; M: m-index; CD: No. of Cited Documents; TC: Times-Cited.

Figure 3 presents the growth of sources from 1983 to 2008. As can be seen, the Islamic banking research was mainly published in various source fields. It mainly started in 1985 by Arab Law Quarterly with almost a stable publication of two documents per year. Leading the way, the International Journal of Bank Marketing started publishing Islamic banking documents in 1988 with average publications per year. Most importantly, the main source of Islamic banking research was led by other than Islamic banking and finance sources.

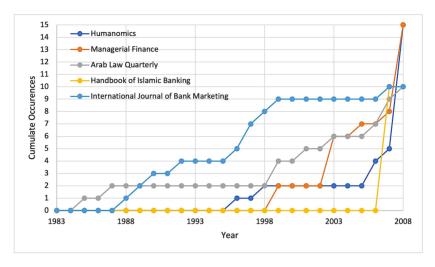


Figure 3: Source Growth (1983-2008)

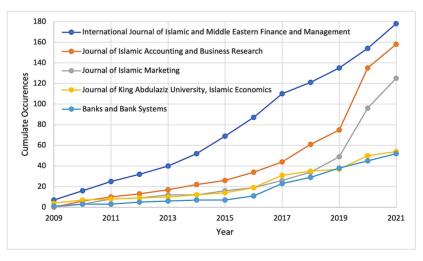


Figure 4: Source Growth (2009-2021)

Figure 4 presents the growth of sources from 2009 to 2021. As can be seen, the Islamic banking and finance sources have started to emerge with a great focus on the advantages of Islamic banking, especially after the wake of the financial crisis of 2007–2008. The International Journal of Islamic and Middle Eastern Finance and Management led the way for publication, followed by the Journal of Islamic Accounting and Business Research, the Journal of Islamic Marketing. The growth of special sources of Islamic banking allows focusing on Islamic banking objectively.

In the same venue, Table 4 illustrates the most cited sources in Islamic banking research, where the majority of citations refer to the Journal of Banking and Finance and the International Journal of Bank Marketing, respectively. Not till the third place the citation refers to an Islamic banking and finance journal. It is worth mentioning that in the top 20 most cited sources, only five specialized in Islamic research, representing only 25 per cent o the top twenty.

Table 4: Most Cited Sources from Collection's Reference Lists

No.	Sources	N	%
1	Journal of Banking and Finance	2,663	1.91
2	International Journal of Bank Marketing	2,520	1.80
3	International Journal of Islamic and Middle	1,646	1.18
	Eastern Finance and Mngt.		
4	Journal of Financial Economics	1,159	0.83
5	Journal of Banking and Finance	1,143	0.82
6	Journal of Finance	1,086	0.78
7	Journal of Business Ethics	1,085	0.78
8	Journal of Islamic Marketing	789	0.56
9	Journal of Islamic Accounting and Business	750	0.54
	Research		
10	Accounting	719	0.51
11	Islamic Economic Studies	716	0.51
12	Journal of Financial Services Research	656	0.47

No.	Sources	N	%
13	International Journal of Islamic Financial	605	0.43
	Services		
14	Journal of Money	600	0.43
15	Journal of Marketing	592	0.42
16	Humanomics	581	0.42
17	Pacific-Basin Finance Journal	565	0.40
18	American Economic Review	544	0.39
19	Journal of Econometrics	527	0.38
20	Journal of Islamic Economics	474	0.34

3.2.2. Documents

Table 5 illustrates the most cited document in Islamic banking research. This would be an incredibly helpful criterion for evaluating the most influential articles in the field of Islamic banking. Accordingly, the most cited article was written by Thorsten Beck, Asli Demirgüç-Kunt, and Ouarda Merrouche. It is worth mentioning that their work was published in 2013, but it showed in 2013, but high impact and interest by other researchers as shown in the local and global citations of the document. Notably, the top 20 cited document are from 1997 to 2015, most of that work has been published in the recent years, which indicate the growing impact of Islamic banking research. However, the most cited documents in Islamic banking research have been published by non-Islamic banking and finance journal, not till the 18th place by the Journal of Islamic Accounting and Business Research. This required Islamic banking and finance journals to attract more talents and quality researcher papers to lead the Islamic banking publication.

Table 5: Most Cited Documents

No.	Document	DOI	Year	ГС	25	CC/	NLC	NGC
-	Beck T, 2013, J Bank Financ	10.1016/j.jbankfin.2012.09.016	2013	387	592	65.37	36.88	29.19
2	Ihk M, 2010, J Financ Serv Res	10.1007/s10693-010-0089-0	2010	235	330	71.21	18.42	12.64
m	Chong BS, 2009, Pac Basin Financ J	10.1016/j.pacfin.2007.12.003	2009	229	369	62.06	16.61	14.88
4	Abedifar P, 2013, Rev Financ	10.1093/rof/rfs041	2013	215	277	77.62	20.49	13.66
5	Khan F, 2010, J Econ Behav Organ	10.1016/j.jebo.2010.09.015	2010	167	265	63.02	13.09	10.15
9	Haniffa R, 2007, J Bus Ethics	10.1007/s10551-006-9272-5	2007	129	237	54.43	8.26	6.26
7	Dusuki AW, 2007, Int J Bank Mark	10.1108/02652320710739850	2007	120	261	45.98	7.68	68.9
∞	Mollah S, 2015, J Bank Financ	10.1016/j.jbankfin.2015.04.030	2015	119	184	64.67	21.94	16.77
6	Bourkhis K, 2013, Rev Financ Econ	10.1016/j.rfe.2013.01.001	2013	119	165	72.12	11.34	8.14
10	Gerrard P, 1997, Int J Bank Mark	10.1108/02652329710184433	1997	116	169	68.64	2.99	3.00
11	Olson D, 2008, Int J Account	10.1016/j.intacc.2008.01.003	2008	114	157	72.61	7.59	5.20
12	Aggarwal RK, 2000, J Money Credit Bank	10.2307/2601094	2000	112	208	53.85	5.33	4.22
13	Naser K, 1999, Int J Bank Mark	10.1108/02652329910269275	1999	112	194	57.73	6.31	6.18
14	Maali B, 2006, Abacus	10.1111/j.1467-6281.2006.00200.x	2006	103	204	50.49	5.69	3.62
15	Ariss RT, 2010, Rev Financ Econ	10.1016/j.rfe.2010.03.002	2010	86	123	19.61	7.68	4.71
16	Rosly SA, 2003, Int J Soc Econ	10.1108/03068290310500652	2003	88	112	78.57	9.31	5.52
17	Metawa SA, 1998, Int J Bank Mark	10.1108/02652329810246028	1998	98	218	39.45	2.41	2.87
18	Farook S, 2011, JIslamic Account Bus Res	10.1108/17590811111170539	2011	84	134	69.79	14.33	8.70
19	Johnes J, 2014, J Econ Behav Organ	10.1016/j.jebo.2013.07.016	2014	81	137	59.12	14.44	12.71
20	Srairi SA, 2010, J Prod Anal	10.1007/s11123-009-0161-7	2010	79	120	65.83	6.19	4.59

LC: Local Citations, GC: Global Citations, NLC: Normalized Local Citations, NGC: Normalized Global Citations.

3.3 Intellectual Structure

3.3.1 Authors

This part analyzes the impact of the most relevant authors of the Islamic banking literature based on article count. The article count metric gives a score for each literature item an author has authored or co-authored, regardless of how many co-authors the article has. For instance, if the research document has ten authors, the research document count of each author will increase by one. Table 6 shows the impact of the most relevant authors of Islamic banking, where an insightful analytical view of Table 6 shows a large discrepancy between the number of publications and the number of contributors. This issue raises the question of whether academics have published much original research or have tended only to do so by co-authoring without an actual increase in their original contribution. Therefore, the fractional number of documents illustrates the researchers' contributions without any concern whether the article has a single author or co-authors. This method allows each author of the article to have a score of one divided by the total number of authors, giving each author an equal consideration and all co-authors. For instance, if the article has ten authors, every one of them earns a 0.1 increase in their fractional number of documents. This provides a fairer estimation for authors performance and real impact.

Table 6: Impact of the Most Relevant Author

Rank	Sources	SY	FP	TP	CD	TC	Н	G	M
1	Wilson R	1987	17.17	19	14	141	6	11	0.17
2	Hassan MK	2007	14.12	43	38	832	15	28	1.00
3	Amin H	2008	13.10	24	21	538	12	21	0.86
4	Ariff M	1988	11.33	21	16	236	6	15	0.18
5	Hassan R	2011	9.75	24	16	126	7	10	0.64
6	Grassa R	2012	9.50	16	15	178	8	13	0.80
7	Tabash MI	2017	9.48	19	14	112	6	10	1.20
8	Sufian F	2007	9.34	20	20	453	12	20	0.80

Rank	Sources	SY	FP	TP	CD	TC	Н	G	M
9	Ibrahim MH	2011	9.25	16	13	226	8	13	0.73
10	Nawaz T	2016	8.33	10	10	124	5	10	0.83
11	Ismal R	2010	8.25	10	10	71	6	8	0.50
12	Kabir Hassan M	1998	7.92	20	17	320	9	17	0.38
13	Worthington AC	2014	7.33	14	7	140	4	6	0.50
14	Suzuki Y	2013	7.25	16	9	48	4	6	0.44
15	Muneeza A	2011	7.03	11	7	42	4	6	0.36
16	Asutay M	2013	6.92	16	12	205	6	12	0.67
17	Karim RAA	1989	6.75	13	11	343	8	11	0.24
18	Archer S	1998	6.50	16	14	287	8	14	0.33
19	Hussainey K	2015	6.42	17	16	106	5	9	0.71
20	Hassan S	2005	6.07	11	6	29	3	5	0.18

SY: Starting Year; PF: Fractionalized Publications; TP: Total Publications; CD: No. of Cited Documents; TC: Times-Cited; H: h-index; G: g-index; M: m-index.

Table 6 ranks the most relevant author according to fractionalized publications with the top 20 authors. Notably, author Rodney Wilson the British economist, recorded the highest value of the fractionalized publications with 17.17. Author Professor Dr Mohammad Kabir Hassan the who is a Bangladeshi-American economist serves as Professor of Finance at the University of New Orleans, has the secondhighest article fractionalization at 14.12, at the same time Hassan has published more than 43 article in the Islamic banking which is the highest among top 20 authors. This was followed by the third-highest number of fractionalized publications with 13.10, which was accomplished by Author Assoc. Prof. Dr Hanudin Amin from the Universiti Malaysia Sabah. The distinguished Professor Mohamed Ariff from Sunway University comes in fourth place, followed by Professor Rusni Hassan from IIUM Institute of Islamic Banking and Finance in fifth place. Based on these results, there is no dominant author among the XYZ authors in Islamic banking in the analyzed dataset; however, it is noticeable that the top five authors on the list have been the most prominent.

3.3.2 Institutions

This part presents the top-affiliations' scientific production in Islamic banking. As expected, The International Islamic University Malaysia had the most publications and leading the Islamic banking research with more than 225 documents. In the same venue, Universitas Malaya, Universiti Utara Malaysia, Universiti Teknologi Mara and Universiti Kebangsaan Malaysia had more than 100 published documents. It is worth mentioning that the top six affiliations' scientific production is from Malaysia, which shows the great role play by Malaysian institutions in Islamic banking research. Each of the top twenty-one institutions contributed more than 25 papers in Islamic banking. All in all, the top twenty institutions have contributed more than 1288 documents which present around 39 per cent of the total dataset of the current research.

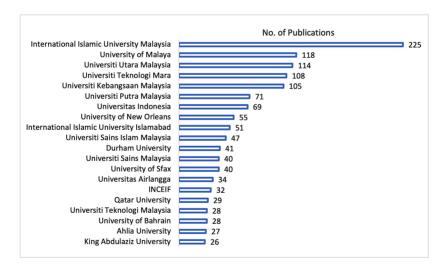


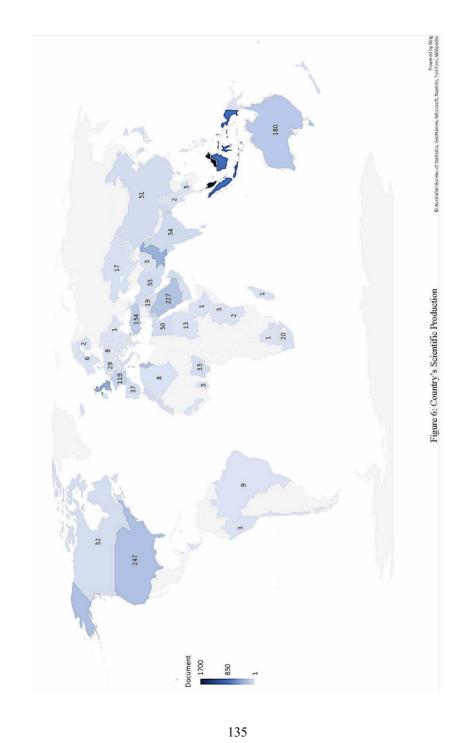
Figure 5: Top-Affiliations' Scientific Production

3 3 3 Countries

In this section, the countries conurbations to Islamic banking research are discussed. The analysis of the dataset includes one hundred and ten countries. It is important to evaluate and analyse the scientific output in each country, which offers scholars a comprehensive indication of the role and impact of the research and development activities in Islamic banking.

On a choropleth map, Figure 6 presents countries' scientific production of Islamic banking. In simple words, the darker the shade of a particular country, the more scientific production by that country. Expectedly, Malaysia and Indonesia are leading the way in Islamic banking research by 1699 and 865 respectively, representing more than 43 per cent of the total publications over the world.

Furthermore, among the top fourteen, 1330 papers have been produced by Muslim countries: Pakistan, Tunisia, Saudi Arabia, Turkey, Bangladesh, Jordan, and Bahrain, which represent more than 22 per cent of the total publications worldwide. Interestingly, among the top fourteen, there are four non-Muslim countries with more than 968 papers published by UK, USA, Australia, and France; this shows the global interest in Islamic banking.



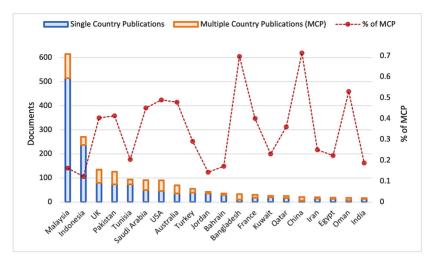


Figure 7: Country's Scientific Production by Corresponding Author

Figure 7 shows the countries' scientific production of Islamic banking by the corresponding author. The scientific publications can be measure within the country and intercountry. Thus, the intracountry collaboration index can be used to illustrate the scientific publications within a single country. In contrast, the intercountry collaboration index can illustrate the scientific publications within multiple countries publications where it provides an overview of cooperation between countries. Malaysia is predominantly the highest appearance of corresponding authors in Islamic banking, with more than 514 documents. Indonesia took second place with more than 237 documents. It is important to realize that Malaysian and Indonesian authors are leading the way of Islamic banking publications. These were followed by UK, Pakistan, Tunisia, and Saudi Arabia, which published 80 documents, 74 documents, 74 documents, and 50 documents. In addition, according to the intercountry collaboration, Malaysia has the highest score, followed by UK, Pakistan, Tunisia, Saudi Arabia, the USA, and Indonesia. According to the percentage of multiple country publications, it is worth mentioning that China and Bangladesh are the most courtiers were collaborating with other

countries. Their work is mainly in collaboration with other researchers worldwide, which gives Islamic banking research a holistic international view.

Figure 8 shows the most cited countries in the field of Islamic banking. The survey of research illustrated that Malaysia maintained the most contribution in the field of Islamic banking, followed by the United Kingdom, the United States, and Pakistan. Accordingly, researchers from Malaysia have published 5363 papers, followed by the USA with 2348 papers, the United Kingdom with 1884 papers, and Pakistan with 1098 papers. In terms of the average citation, papers published by researchers in the Netherlands has maintained the highest citations.

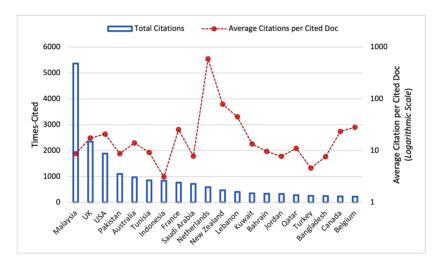


Figure 8: Most Cited Countries

3.4 Conceptual Structure

The growth of abstracts' trigrams words illustrated the development in the most three keywords that appeared in the dataset in the field of Islamic banking. Figure 9 present the growth of abstracts' trigrams words from 1983 till 2008; it shows that in 1990 the trigrams words were Islamic banking system and interest-free banking system. However, the concept Islamic banking system continued to develop

dramatically till 2008, while the concept of an interest-free banking system was not widely spread. Additionally, in 2003 the Gulf cooperation council started to emerge with Islamic banking, followed by mobile credit cards, dual banking systems, Malaysian Islamic banks, data envelopment analysis, Islamic home financing, and the Islamic banking industry.

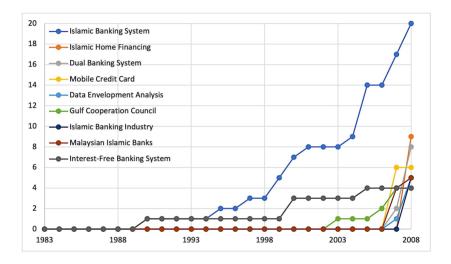


Figure 9: Growth of Abstracts' Trigrams Words (1983-2008)

Additionally, Figure 10 presents the growth of abstracts' trigrams words from 2009 till 2015; it shows that the trigrams words have become more specialised to Islamic finance and banking than general trigrams words used before. It mainly focused on Islamic financial institutions, Islamic banking industry, Islamic banking system, Islamic banking sector, Islamic home financing, Islamic banking products, data envelopment analysis, risk management practices.

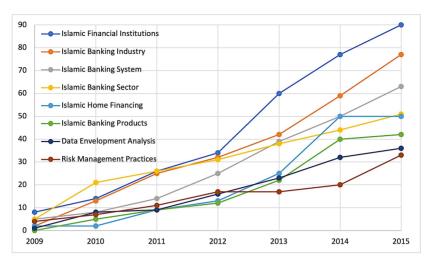


Figure 10: Growth of Abstracts' Trigrams Words (2009-2015)

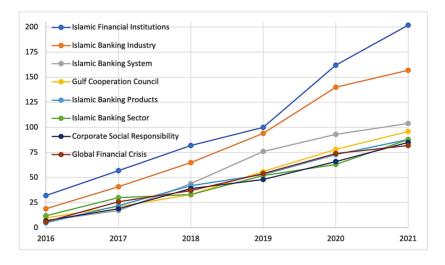


Figure 11: Growth of Abstracts' Trigrams Words (2016-2021)

In the same venue, Figure 11 present the growth of abstracts' trigrams words from 2016 till 2021; it shows that the trigrams words have a new interest. The trigrams words started to focus on corporate social responsibility as a part of the new trend of Islamic banking, the global financial crisis and its effects on Islamic banking, and the role of Islamic banking in such a crisis.

The co-word analysis is mainly used for mapping science to obtain a theme of keywords and their interconnections. This process aims to characterize each research theme by two parameters: "centrality" and "density". Centrality is a measurement of the correction degree among different topics, while density measures the correlation degree among keywords. A thematic map is a vital plot that enables the analysis of themes according to the quadrant they are placed (Figure 12). The upper-left quadrant shows niche themes or very specialized, and the lower-left quadrant shows the emerging or declining themes, the upper-right quadrant shows the motor theme, lower-right quadrant shows the basic themes.

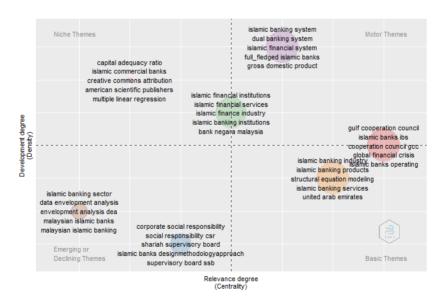


Figure 12: Thematic Map of Abstracts' Trigrams Words (1983-2021)

Themes in the upper-right quadrant are both well developed and important for structuring a research field such as the Islamic banking system, dual banking system, Islamic financial system, and full-fledged Islamic banks. Themes in the upper-left quadrant have well-developed internal ties, but unimportant external ties are of marginal importance for the field, such as capital adequacy ratio and Islamic commercial banks. Notably, some themes are between the niche and motor themes such as Islamic financial institutions, Islamic financial services, Islamic financial industry, and Islamic banking institutions.

Themes in the lower-left quadrant are "weakly developed and marginal", mainly representing emerging or disappearing themes such as the Islamic banking sector, Malaysian Islamic banks, corporate social responsibility, social responsibility, shariah supervisory board, and Islamic banks design methodology approach. Themes in the lower-right quadrant are "important for a research field but are not developed", so this quadrant groups transversal and general, basic themes such as Islamic banking industry, Islamic banking products, and Islamic banking services. However, some themes are between motor and basic themes such as Islamic banks IBS and Islamic banking operation, which are important topics in this field but not developed well

4.0 Conclusion

Recent developments in the banking system and its regulations have revolutionised the banking sector, especially true for Islamic banking. Islamic banking literature is often initiated with an assessment of finance and the shariah-compliant, moral, social, and environmental implications. Because of the advancement of the banking sector and their implementation in almost all segments of the economy, there is a need for compliance with Islamic banking applications in accomplishing *Maqasid Al-shariah*. A significant number of studies focus on the adoption and viability of Islamic banking implementation and user intention and perceptions.

This paper aims to conduct a comprehensive systematic bibliometric analysis of Islamic banking literature. Bibliometric analysis is designed to distinguish the most appropriate works, define relevant study fields, give perception about existing research trends, and offer direction for future studies. The bibliometric review was performed on the dataset of 3,285 documents written between January 1983 and October 2021 in Islamic banking literature. The financial crisis has revolutionised Islamic banking literature as a solution for the current banking system.

This science mapping technique supports the existence of what we have termed Islamic banking and finance education, a conceptual perspective that has perhaps been ignored but applied in research and practice. Through a bibliometric analysis, the published literature in Islamic banking has been retracted. The development of this research model and its growing relevance can be summed up by quoting what Aristotle had already predicted as "the whole is greater than the sum of its parts".

Lastly, there are some limitations to this study that should be recognised. To begin, this is a quantitative approach that disregards the qualitative components of the study. Additionally, using alternative software tools to generate network maps may produce marginally dissimilar findings. Finally, alternative keywords, a different study period, or applying the study in additional databases may influence the results obtained.

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