

## Islamic Banking: Past, Present and Future

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### Abstract

**Purpose:** The Islamic banking literature has been growing rapidly in the last decade. The aim of this study is to carry out a retrospective hybrid review to reveal this literature's influential scientific actors (countries, institutions, journals, authors and documents), identify and discuss its most important streams, and finally, present a future research agenda

**Methodology:** We use a bibliometric approach, performing a review and objective analysis of 1,304 articles dealing with Islamic banking published during 1983–2021. We apply citation, keyword, and coauthorship analysis, as well as (bibliographic coupling via VOSviewer software and Biblioshiny (an R package

**Findings:** We identify the influential aspects in the literature and discuss four important research streams: (1) overview, growth, and legal framework of Islamic banks; (2) Islamic banks' performance and risk management practices; (3) customer and marketing perspectives of Islamic banking; and (4) the dynamics of efficiency in Islamic banks

**Originality:** This is one of the first studies to apply state-of-the-art methodology to review the literature related to Islamic banking and to highlight the dynamics of Islamic banks while presenting an extensive future research agenda

**Keywords:** Islamic banking; Islamic finance; Bibliometric review; Literature review

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## المصارف الإسلامية: الماضي، الحاضر، والمستقبل

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### ملخص البحث

أهداف البحث: شهدت أدبيات المصارف الإسلامية نموًا متسارعًا في العقد الماضي. وعليه، تهدف هذه الدراسة إلى إجراء مراجعة شاملة للأدبيات الإنجليزية في هذا المجال، وتحقيق ثلاثة أهداف: الأول: الكشف عن العناصر الفاعلة والمؤثرة بحثيًا من حيث (الدول، والمؤسسات العلمية، والمجلات المتخصصة، والباحثين والخبراء، والأبحاث الأعلى تأثيرًا)، الثاني: تحديد ومناقشة أهم المجالات المعرفية التي تشملها أدبيات المصارف الإسلامية، الثالث: تقديم مقترحات بحثية في موضوعات ما زالت خصبة للبحث.

منهج البحث: تم استعمال المنهج البليومتري مرفقًا بمنهج تحليل المحتوى لعمل مراجعة كمية ونوعية لـ ١٣٠٤ مقالًا تناولت موضوعات متخصصة في المصارف الإسلامية، تم استدعاء البيانات من قاعدة بيانات (ويب أوف ساينس) من الفترة ١٩٨٣-٢٠٢١، وتم تطبيق التحليل البليومتري كتحليل الاقتران البليوغرافي، والكلمات الأكثر تكرارًا، وتحليل المحتوى بالاقتران والتكرار إلخ، وذلك باستخدام برنامج VOSviewer وحزمة Biblioshiny المتوفرة على برنامج R لتحليل البيانات.

النتائج: توصلت الدراسة إلى الكشف عن العناصر الفاعلة والمؤثرة في التخصص، وقامت بمناقشة مفصلة عن المسارات البحثية الكلية والفرعية التي تنقسم لها أدبيات الدراسات السابقة، وهي: (١) المصارف الإسلامية: نظرات عامة، مسائل النمو، والإطار القانوني للمصارف الإسلامية، (٢) أداء البنوك الإسلامية وممارسات إدارة المخاطر، (٣) المصارف الإسلامية من منظور العملاء والتسويق، (٤) ديناميات الكفاءة في المصارف الإسلامية.

أصالة البحث: تعد هذه الدراسة الأولى من نوعها من حيث استعمال المنهج البليومتري وتحليل المحتوى في مجال المصارف الإسلامية، وهو ما يساعد الباحثين في التعرف على عناصر التأثير ومجالات التخصص بالإضافة لمقترحات بحثية، مما يساهم في تطوير البحث العلمي في مجال المصارف الإسلامية.

الكلمات المفتاحية: المصرفية الإسلامية؛ التمويل الإسلامي؛ مراجعة بليومتريكية، مراجعة أدبيات سابقة

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## 1. Introduction

Islamic finance emerged with the emergence of Islam itself 14 centuries back. Before that, financial practices were a part of social economics. Finance as a distinct subject expanded its horizon between the 1940s and 1950 while Islamic finance was introduced as a subject of study in the 1970s when jurists and scholars of Islam gathered and swore to end contracts that fall under the ambit of *Riba* (interest), ban all interest-based businesses. As a system of financial services, Islamic finance includes capital markets (*Sukuk*), Takaful, Islamic funds' assets, and Islamic Banking which represent itself as the major component of Islamic finance with total assets of USD 1.842 trillion (IFSB, 2021).

The surging growth of Islamic finance soon covered 60 countries of 14 jurisdictions and as of 2020, research in Islamic finance has been undertaken in more than 75 countries mainly including the Gulf Cooperation Council (GCC) and Organization of Islamic Countries (OIC) countries (Khan, et al., 2020). However, with such growth, Islamic finance also increased its complexity in products and operations and felt the need for more operating standards and regulations. Recently, IFSB developed the standard IFSB-23, related to capital adequacy ratio, to align with global banking standards (IFSB, 2021). As per the Islamic Finance Stability Board (IFSB, 2021), total Islamic finance assets stood at USD 2.70 trillion in 2020 with a growth rate of 10.7%. The Islamic Banking system got recognition after the global financial crisis of 2008 due to its natural resistance against financial crisis turmoil (Hassan et al., 2019).

In line with the notion of performance and growth factors, vast research was carried out after the financial crisis of 2008 in Islamic Banking and finance, which has also led regulatory authorities to include it in the curriculum of various educational institutions due to its significance and growth. Therefore, it has become imperative to synthesize and understand the nature of literature on Islamic banks. In this study, we review the already published literature on Islamic Banking through the cross-cutting approach of bibliometric analysis coupled with content analysis, which takes into account both qualitative and quantitative aspects of the literature.

Previous reviews on Islamic finance have mainly focused on the influential and conceptual aspects (Alshater et al., 2020; Khan et al., 2020; Biancone et al., 2020; Hassan & Aliyu, 2018), Islamic funds (Hassan et al., 2019), accounting standards in Islamic finance and Islamic accounting (Hassan et al., 2019; Alshater et al. 2022), takaful (Khan et al., 2020) and *sukuk* (Paltrinieri et al., 2019) Islamic microfinance (Hassan et al., 2021), Waqf (Alshater et al., 2021) and Zakah (Alshater et al. 2021). Overall, these studies have incorporated both bibliometric and traditional content analysis or systematic literature review. However, they are either discussing the non-Islamic Banking aspect of Islamic finance or Islamic Banking in a cursory way with limited implications.

Our hybrid review is different from the aforementioned studies in the following ways; Firstly, we comprehensively collect and present the review of 1088 articles up to 2019 through a bibliometric approach combined with content analysis. Secondly, we apply citation, keywords, co-authorship analysis and bibliographic coupling, using VOSviewer software. Lastly, from a methodological point of view, this study complements the earlier literature (Alshater et al., 2020; Biancone et al., 2020) using the trending approach of bibliometric analysis in Islamic finance, avoiding the typical papers' selection bias and moving beyond

the scope of traditional literature review (Hassan & Aliyu, 2018).

This study offers several contributions to the existing literature. Firstly, we identify and discuss the prominent facets of Islamic Banking literature such as leading institutions, countries, authors and journals. Secondly, we synthesize and systematically present the scholarly discussion of the existing literature and identify four streams. Lastly, we identify the gaps within existing literature and present 18 future research directions, which are instrumental for the growth of the Islamic Banking field.

This paper is structured as follows. Section 2 explains the study methodology and data, while section 3 presents the results. Section 4 provides the content analysis. Section 5 presents guidance for the future research direction in Islamic Banking and finally, section 6 concludes our study.

## **2. Methodology and Data**

### *2.1 Methods and software*

To carry out this review, we apply a cross-cutting approach of hybrid review, which incorporates both bibliometric analysis (quantitative) and content analysis (qualitative). This approach is widely used in the recent literature within the domain of business and finance (Khan et al., 2020; Hassan et. al, 2021). Price (1965) introduced the bibliometric analysis to understand the scholarly network of articles. Content analysis is the qualitative way of discussing the dynamics and trends of the literature (Paltrinieri et al., 2020). Following the above methodological framework, we conduct the analysis in the following five dimensions: (1) Bibliometric citation analysis, (2) Bibliometric co-authorship analysis, (3) Keyword/cartography analysis, (4) Bibliographic coupling analysis, (5) Content analysis.

We use RStudio with the “Bibliometrix” package to analyze the data. This R package comes with a very user-friendly tool called Biblioshiny, which is a graphical interface designed to conduct bibliometric tests (Aria & Cuccurullo, 2017). To build visualization networks, we use VOSviewer (Van Eck & Waltman, 2010). Both programs are among the best known and widely used to analyze bibliometric data (Khan et al., 2020; Paltrinieri et al., 2019).

### *2.2 Sample Selection*

The sample selection process follows three main steps. The first step is related to the choice of the database to extract the data for bibliometric analysis. For this review, we select the database of the Web of Science (WOS) which is one of the most authentic and reliable databases for conducting the bibliometric analysis. WOS is widely used in the literature and does not reflect biases toward any publisher (Khan et al., 2021). In the second step, we search the relevant literature using appropriate keywords. Our keyword search criteria are twofold: Firstly, since the primary objective of this study is to assess the literature discussed within the domain Islamic Banking industry, we use a very generic keyword i.e. “Islam\*” and “Bank\*” to search them in the title of the article. This exercise provides us a total of 1633 articles. We run the keyword analysis through VOSviewer to extract the most widely used keywords, which might be synonymous and cover all the aspects of literature discussing any aspect of Islamic Banking. Secondly, we then search the keywords (extracted from keyword analysis) i.e. “islam\*”, “Shariah”, “sharia”, “sharih”, “sharia”, “interest

free” and combine them with “Bank\*”, or “Finance”<sup>1</sup>.

We search the aforementioned keywords in the title, abstract and keywords of the article for the period 1900-2019 which yield us a total of 3574 articles. To clean the data, we apply the following four main filters:

1. The scholarly publication should be published within the theme of Economics, Business Finance, Business and Management.
2. We exclude articles published in 2020-2021 as these papers still need citations for authentication.
3. We select publications in the forms of articles, reviews, early access and published in the English language.

The third and final step is the careful examination of each article, that is thoroughly reviewed by two independent researchers to confirm the relevance of each article. We rejected all the articles, discussing the topic of Islamic Banking in a trivial and marginal way or discussing it in the non-banking industry. We were finally left with a total of 1088 articles extracted from WOS. Table 1 provides the detail of our search query at each step.

**Table 1:** Summary of search query

Query description		
Category	Criteria	No. of refined documents
Query outcomes before search refine		<b>3574</b>
Access	Types including both open access and other journals	0
Years	Including all years (1981-2019)–removed articles from 2021	(0)
Subject area	Limit the search to the following subjects: Business Finance (1,345) Economics (885) Business (584) Management (509) We excluded International Relations, Political science, History and other subjects	(1075)
Document type	Limiting the documents to Article (1997) Early Access (1) Review (49) while excluded Meeting Editorial Material (121) Book Review (37) Letter (3) Book Chapter (447) Book (53) Correction (4) Proceedings Paper (241)	(453)
	We exclude all book series	(230)
Language	.We excluded all languages other than English	(18)
(The final number of documents (After search refine		1798
After careful examination of all articles by two independent researchers, we were left with 1088 articles		1088

1 Following the esteemed reviewer suggestion, we have also used the keyword *risk-sharing finance*, however, it does not change results. It is probably due to the fact that this suggested keyword is used simultaneously with other keywords. For example, Akin et al. (2016) has both risk-sharing finance and Islamic finance as a keyword either in the title abstract or author keyword.

### 3. Results

#### 3.1 Influential aspects of the Islamic Banking literature

Figure 1 shows the year-wise distribution of Islamic Banking literature from 1983 to 2019. We notice that research on this topic was almost neglected until 2007. However, a big leap is noticeable in the last decade, this can be associated with several reasons: (1) Severe impacts of the global financial crisis which led to shaping a global inclination towards alternative ways of financing; (2) Islamic Banking education flourished in many Asian and western countries, which pushed the academic research in this field; (3) The noticeable increase of Islamic sharia complaint institutions exceeded 700, with assets estimated to reach 2.44 trillion dollars (IFSB Report, 2020).

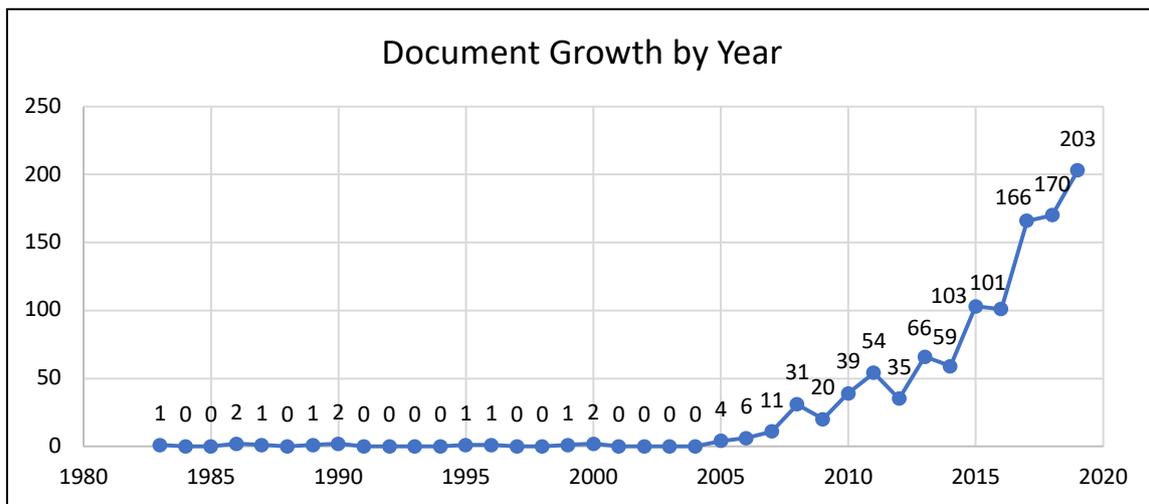


Figure 1: This figure presents the growth of Islamic Banking literature

As presented in Figure 2, the total harvested citations over the last 27 years is 6,236. The last 10 years (2009-2019) collaborate to 96% of total citations.

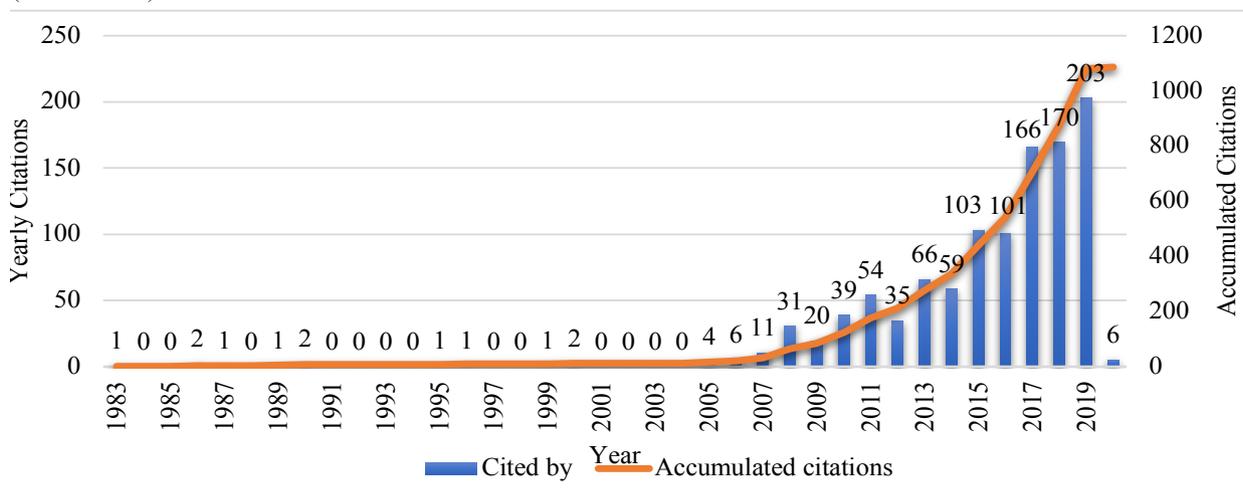
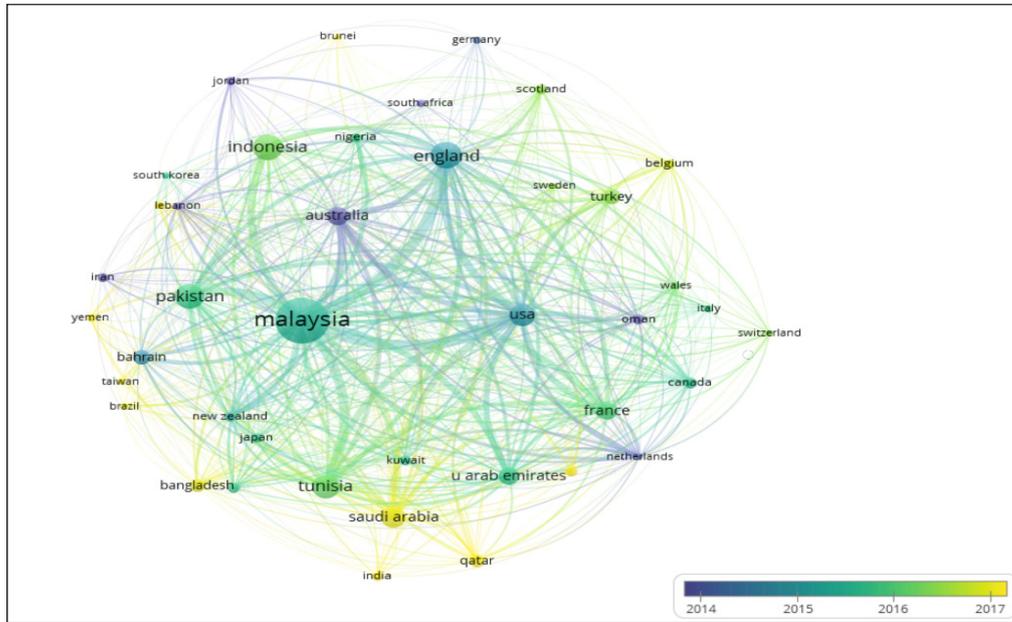


Figure 2: This figure presents the citation trend over the years

Figure 3 shows the frequency of most active countries in publishing Islamic Banking articles and reviews, larger the circle, more productive the country is, the thicker lines demonstrate high collaboration between countries, while the more yellow the color is the more recent the country is publishing on the topic. From the figure, we can notice that the earliest countries to participate in publishing papers in journals index in WOS concerning Islamic Banking are “Australia, Netherlands, and Oman” followed by “Malaysia, USA, and England,” recently countries like “Saudi Arabia, Brunei, Switzerland, Qatar, India, Brazil, and Taiwan” have started to publish in WOS indexed journals.



**3:** This figure presents the country’s growth of Islamic Banking literature over the years. The size of node indicates the country to be more active in publishing literature. The thickness of the line implies higher collaboration among countries.

Associated with these countries come institutions, Table 2 presents the most relevant affiliations in terms of productivity. We present the top 10 due to the brevity of space. The top 3 are Malaysian “International Islamic University Malaysia,” “University of Malaya” and University Kebangsaan Malaysia.” New Orleans University comes at the fourth place due to one prolific author, which is Prof. Mohammad Kabir Hassan who published more than 32 direct papers on Islamic Banking and more than 400 papers in general. The list is beneficial to academicians, researchers and industry practitioners to identify the key institutions with a focus on Islamic Banking.

**Table 2:** Most Relevant Affiliations

No.	Affiliations	Articles
1.	Int. Islamic University Malaysia (IIUM)	119
2.	University Malaya (UM)	42
3.	University Kebangsaan Malaysia (UKM)	40
4.	University New Orleans (UNO)	32
5.	(University Utara Malaysia (UUM	31
6.	(University Indonesia (UI	30

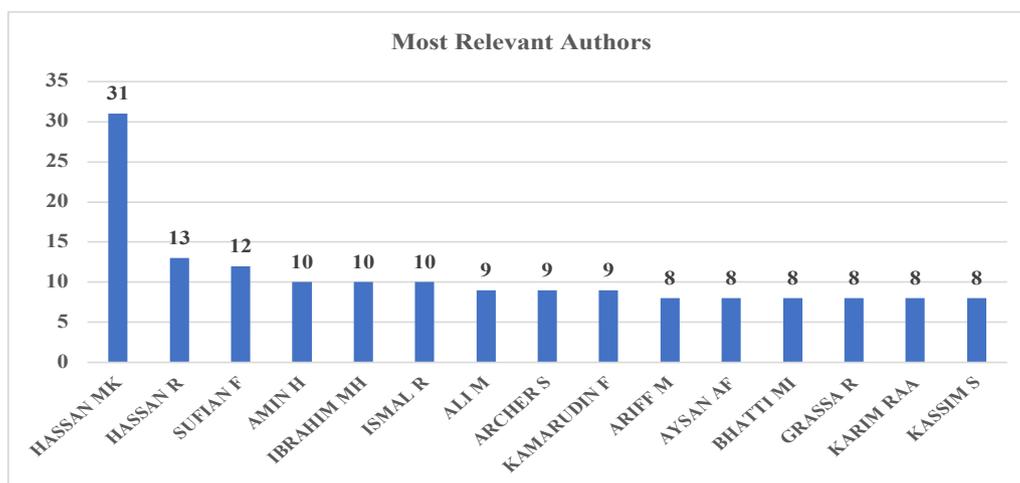
7.	University Sfax	24
8.	(University Putra Malaysia (UPM	22
9.	(University Teknol Mara (UTM	20
10.	University Manouba	19
This table presents the most productive institutions in terms of published articles.		

It is also important to get acquainted with the most relevant journals which publish Islamic Banking papers. Table 3 helps in identifying the top 10 journals.

**Table 3:** Most Relevant Journals

No.	Sources	Articles	H-Index	SJR 2019	Publisher
1.	International Journal of Islamic and Middle Eastern Finance and Management	119	22	Q2	Emerald
2.	Journal of Islamic Accounting and Business Research	64	11	Q2	Emerald
3.	Journal of Islamic Marketing	59	28	Q2	Emerald
4.	Humanomics	41	11	Q1	Emerald
5.	International Journal of Bank Marketing	28	71	Q2	Emerald
6.	Qualitative Research in Financial Markets	25	12	Q2	Emerald
7.	Managerial Finance	24	33	Q3	Emerald
8.	Al-Shajarah	22	2	Q2	IIUM
9.	Pacific-Basin Finance Journal	22	47	Q2	Elsevier
10.	International Journal of Economics Management and Accounting	19	15	Q3	UPM
This table presents the most relevant journals along with their ranking, which publish articles on Islamic banking.					

Figure 4 shows the leading and most productive authors in Islamic Banking. The leading author is Mohammad Kabir Hassan followed by Hassan, R. and Sufian, F. These are the three authors who have more than 10 papers on the topic, bearing in mind the restrictions in data collection as per our criteria.



4: This figure presents the most relevant authors in terms of publications.

### 3.2 Citation Analysis

Citation provides evidence of the influence of an article (Tsay, 2009). Citation analysis was criticized as a tool to measure the impact of being biased; as researchers can cite their own work, cite to attack and criticize (not to praise or quote), also because citations can be from non-trusted sources or sometimes only cited for the sake of quoting the methodology of a certain paper (Simko, 2015). Table 4 lists the most cited papers in Islamic Banking literature. The highly cited literature mainly focused on risk management and stability of Islamic Banks (Beck et al., 2013; Abedifar et al., 2013; Čihák & Hesse, 2010), legitimacy of Islamic Banking (Chong and Liu, 2009; Khan, 2010) and customers' perspective of Islamic Banking (Metawa and Almosawi, 1998; Dusuki, 2007; Haniffa and Hudaib, 2007).

**Table 4:** Most Cited Papers

No.	Authors	Title	Year	Source title	Cited by
1.	Beck T., Demirgüç-Kunt A., Merrouche O.	Islamic vs. conventional banking: Business model, efficiency and stability	2013	Journal of Banking and Finance	457
2.	Chong B.S., Liu M.-H.	Islamic Banking: Interest-free or interest-based?	2009	Pacific Basin Finance Journal	312
3.	Čihák M., Hesse H.	Islamic Banks and Financial Stability: An Empirical Analysis	2010	Journal of Financial Services Research	258
4.	Dusuki A.W., Abdullah N.I.	Why do Malaysian customers patronise Islamic Banks?	2007	International Journal of Bank Marketing	235
5.	Khan F.	How 'Islamic' is Islamic Banking?	2010	Journal of Economic Behaviour and Organization	218
6.	Abedifar P., Molyneux P., Tarazi A.	Risk in Islamic Banking	2013	Review of Finance	209
7.	Maurer B.	Mutual life, limited: Islamic Banking, alternative currencies, lateral reason	2011	Mutual Life, Limited: Islamic Banking, Alternative Currencies, Lateral Reason	202
8.	Metawa S.A., Almosawi M.	Banking behavior of Islamic Bank customers: Perspectives and implications	1998	International Journal of Bank Marketing	194
9.	Aggarwal R.K., Yousef T.	Islamic Banks and investment financing	2000	Journal of Money, Credit and Banking	181
10.	Haniffa R., Hudaib M.	Exploring the ethical identity of Islamic Banks via communication in annual reports	2007	Journal of Business Ethics	179

This table presents the list of highly cited articles.

### 3.3 Keywords analysis

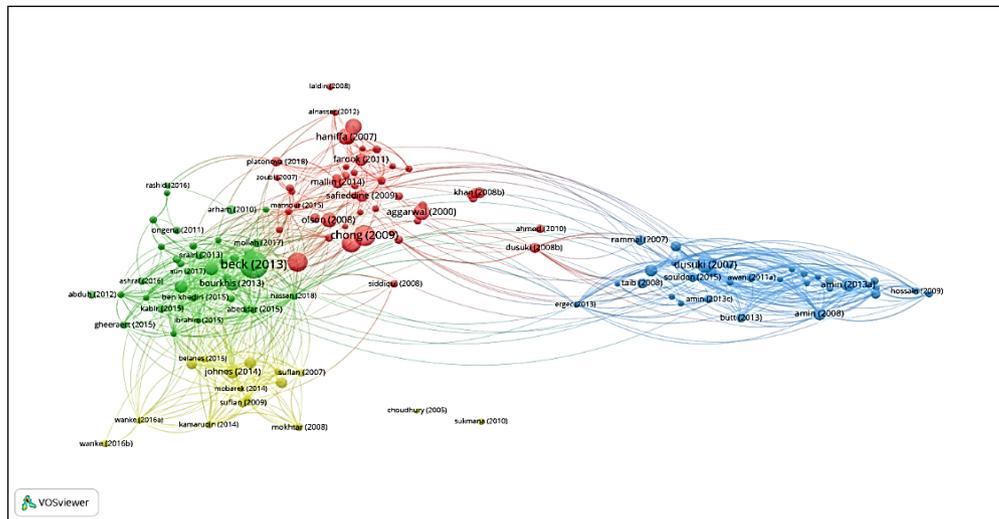
Keyword analysis helps in understanding the dynamics of Islamic Banking literature. Figure 5 shows the network visualization of mostly occurred keywords; we kept the minimum threshold 10 for occurrences of a particular word. The results exhibit that the keywords Islamic Banking was used 292 times followed by Islamic Banks, performance and efficiency with the occurrence of 266, 163 and 135 times, respectively.



### 3.4 Bibliographical coupling:

The main objective of using bibliographical coupling is to explain and identify the main streams/clusters discussing the state of the art literature on Islamic Banking.

Figure 7 provides results in different streams/clusters i.e. Red, Green, Yellow and Blue. The articles in each cluster are further content analyzed by two independent researchers for a better understanding of each stream. To this end, we recognized four streams: (1) Overview, growth, and legal framework of Islamic Banks (Red); (2) Islamic banks' performance and risk management practices (Green); (3) Customer and marketing perspective of Islamic Banking (Blue); (4) Dynamics of efficiency in Islamic Banks (Yellow). In the next section, we content analyzed and discussed the literature in-depth within the aforementioned four research streams. To not miss any important dimension of literature, we also discussed the literature on Islamic Banking published within the year 2020 and 2021 (216 articles).



7: This figure presents the network visualization of literature and cluster the literature in the four streams (1) Overview, growth, and legal framework of Islamic Banks (Red); (2) Islamic Banks performance and risk management practices (Green); (3) Customer and marketing perspective of Islamic Banking (Blue); (4) Dynamics of efficiency in Islamic Banks (Yellow).

## 4. Review of Islamic Banking research streams

### *Stream 1: Overview, growth, and Legal framework of Islamic Banks:*

This stream of the literature mainly focused on the features, characteristics (Foster, 2007; Ahmed, 2010), contractual nature of products (Ashraf et al., 2016; Nouman et al., 2019; Hassan & Aliyu, 2018), Islamic Banking growth and its impact on economic development (Grassa & Gazdar, 2014; Imam & Kpodar, 2016; Boukhatem & Moussa, 2018; Abduh & Omar, 2012; Kassim, 2016) and regulatory and legal framework of institutions under the broader context of Islamic finance (Foster, 2007; Hassan & Lewis, 2007; Grassa & Gazdar, 2014; Oseni et al., 2016).

A growing amount of literature has discussed the definition of Islamic finance and considers it as a financial system that is consistent and originated from Islamic jurisprudence and laws i.e. Holy Quran and

Sunnah (Haniffa & Hudaib, 2007). Such literature has defined Islamic finance relatively from a narrow perspective, such as Islamic Banking, to a broader spectrum of financial infrastructure, encompassing all the segments of the financial system. Gait and Worthington (2009) defined Islamic finance as “Financial service principally implemented to comply with the main tenets of Sharia (or Islamic law).” Thus, Islamic finance is not just financial intermediation through Islamic Banks but also includes other capital and money market operations.

Islamic banks may seem to be a spitting image of conventional banks, but the contractual nature of the former is very much different as compared to conventional finance. Islamic Banks have more equity-like products as part of their assets and liabilities on their balance sheet while mainstream financial institutions have debt-based assets and liabilities. Further, short selling is forbidden. Ashraf et al. (2016) classified Islamic Banking assets broadly into three categories i.e (1) Equity-like assets which include Musharakah and Mudarbah which are based on profit and loss sharing (Nouman et al., 2019). (2) Lease-based products which include Ijarah. (3) Debt-like products which include Salam, istasna and Murabaha (Hassan & Aliyu, 2018). Such modes of financial intermediations improve the sustainability of the financial system, complement real economic activities and protect the rights of all stakeholders (Hassan & Khan, 2019).

The development of the Islamic finance industry and its impact on economics is also the central theme of this stream, as the first Islamic Bank was established in 1963, in Egypt (Hassan & Aliyu, 2018). Since then, the Islamic finance industry has emerged as an alternative robust and resilient system of conducting financial affairs with the current growth of 10.7% and total assets worth USD 2.70 trillion (IFSB Report, 2021). There is consensus among the researchers that Islamic Banks positively contribute to economic development and improve financial inclusion in the country. In this regard, Imam & Kpodar (2016) and Yusof & Bahlous (2013) argue that low-growth countries should introduce Islamic finance in their financial system through proper regulation and legislation and they further empirically asserted that countries with Islamic finance, as part of their financial system, observe higher economic growth. Grassa & Gazdar (2014) reported similar findings for GCC countries. Likewise, Kassim (2016) examined Islamic finance-growth nexus in Malaysia and found that Islamic finance enhances economic growth both in the long and short-run, albeit long-term relationship is more striking. Abduh & Omar (2012) reported the interconnected relationship of Islamic finance with economic growth in Indonesia with a vital role played by providing financing facilities in the economy. Recently, Boukhatem & Moussa (2018) supported the earlier studies, however, the underdeveloped institutional frameworks might reduce this positive effect of Islamic finance on economic development.

Consistent with its growth and its impact on economic development, Islamic finance has emerged as a separate legal and institutional regulatory system around the globe. Using a panel of 30 countries for the period of 2005-2010, Grassa & Gazdar (2014) documented that the Islamic legal framework has a positive impact on the financial sector, especially on the development of the Islamic Banking industry. The establishment of the Islamic legal system along with English or the Civil legal system gives flexibility to the

regulators and policymakers to make amendments depending on the changes in social and macroeconomic factors (Foster, 2007; Grassa & Gazdar 2014). There are also studies showing the convergence of Islamic finance practices with its counterpart. For example, Haniffa & Hudaib (2010) and Rethel (2011) argue that Islamic finance laws are just used unduly and overwhelmingly to justify Islamic financial products, rather than serving the main theme of Islamic finance which is to ensure the rights of all stakeholders. The development of Islamic finance practices within the domain of conventional financial institutions also brings the Islamic finance industry at crossroads (Hassan & Lewis, 2007). Further, “Fatwa-shopping” and non-uniformity in the interpretation of shariah rulings (e.g. on short selling) are the rising issues that challenge the Islamic legal system and impeding the growth of Islamic finance (Oseni et al., 2016).

### ***Stream 2: Islamic Banks Performance and Risk Management Practices***

This stream of literature mainly focuses on liquidity risk (Hassan et al., 2019; Ghenimi et al., 2017; Mahdi & Abbes, 2018; Abdul-Rahman et al., 2018; Boumediene, 2015; Al Ajlouni, 2017; Berger et al., 2019; Al-Harbi, 2020; Toh & Jia, 2021), credit risk and bank stability (Bougatef & Korbi, 2019; Warninda et al., 2019; Louhichi et al., 2020; Chamberlain et al., 2020; Alandejani et al., 2017; Pappas et al., 2017) and regulatory capital decision (Bitar et al., 2020; Toumi, 2019; Bitar et al., 2018; Baldwin et al., 2019).

Liquidity and credit risks are the major risks to manage in any banking system whether it is Islamic or conventional banks. Hassan et al. (2019) documented a negative relationship of liquidity risk, credit risk, and bank stability while Ghenimi et al. (2017) found that liquidity and credit risk separately and jointly increase the instability of Islamic Banks in MENA countries. Generally, Islamic Banks have higher liquidity buffers which might force them to issue long-term loans and take higher risk as maintained by Mahdi & Abbes (2018).

Therefore, the nature of the financing structure also predicts the liquidity risk of Islamic Banks. For example, according to Abdul-Rahman et al. (2018), short-term financing structure stability and real estate financing increase the liquidity risk in Malaysia. Alternatively, Islamic banks can channel and park their excessive liquidity in government-linked Sukuk (Boumediene, 2015) and use innovative products such as time-weighted debt units (Al Ajlouni, 2017). The notion, that Islamic Banks have excess liquidity, is further confirmed by the study of Berger et al. (2019).

They empirically found that Islamic Banks create more per unit liquidity than their counterpart, however, this excess liquidity significantly improves the stability in low-income countries. While identifying the determinants of liquidity in Islamic Banks, Al-Harbi (2020) highlighted profitability, credit risk, capital ratios, deposit insurance, and size are the bank-specific factors that can affect liquidity and external factors including GDP, inflation, monetary policy, and banking sector concentration.

Financial institutions usually face credit risk on the asset side of their balance sheet so do Islamic Banks. Errico & Farahbaksh (1998) pointed out the special risk attached to Musharakah and Mudarbah. As in these contracts, the relationship of banks with their clients is purely based on partnership, thus Islamic Banks principally cannot ask for collateral to hedge this kind of credit risk. However, Warninda et al. (2019) find

Mudarbah to be not riskier than Musharkah and forecasted that credit risk reaches to maximum level when the Musharkah financing is 37 to 39% of the total financing.

The level of credit risk is also explained through the lens of regulatory capital. In this regard, Bougatef & Korbi (2019) maintained the bidirectional relationship between capital buffer and credit risk i.e. with the increased level of credit risk, Islamic banks increase their capital buffer and vice versa. The stringent and strict capital requirement helps banks to overcome the credit risk (Louhichi et al., 2020). By modelling bank-specific and macroeconomics factors in Cox Proportional Hazard Model, Pappas et al. (2017) demonstrated Islamic Banks to have a lower lever level of failure risk. Notwithstanding this finding, Alandejani et al. (2017) reported Islamic Banks to be more susceptible to failure risk than conventional banks.

To measure the credit risk and bank stability, previous literature has employed both accounting-based measures such as non-performing loans and z-score (Bougatef & Korbi, 2019; Berger et al., 2019; Chamberlain et al., 2020; Warninda et al., 2019; Beck et al., 2013) and market-based measure such as distance to default (Hassan et al., 2019; Paltrinieri et al., 2020). Overall, this literature finds Islamic Banks to have better asset quality, lower level of credit risk, more stable and resilient to absorb the negative shocks. Studies also showed that Islamic Banks perform better during times of economic turmoil (Alqahtani & Mayes, 2018). Nevertheless, Ibrahim & Rizvi (2018) reported Islamic Banks to reveal a higher level of risk during the financial crisis but with the persistent lending pattern.

A plethora of research also identified the corporate governance structure and its impact on profitability and risk-taking behaviour. Islamic Banks have a multi-layer of governance structure with the inclusion of Shariah Supervisory Board (SSB) as the “supra authority” which monitors and controls the overall operations of Islamic Banks (Mollah & Zaman, 2015). The larger size of SSB also reduces agency costs and improves the performance of Islamic Banks (Mollah & Zaman, 2015).

Nonetheless, studies also documented that SSB has a negative or no effect on the market value of Islamic Banks (Nawaz, 2019) and enhances the risk-taking behaviour of Islamic Banks but with better performance in terms of profitability (AlAbbad et al., 2019). Moreover, Safiullah et al. (2020) investigated whether SSB plays any role in liquidity creation for Islamic Banks. Using the data of 110 Islamic and conventional banks from 2005-2015, their findings exhibited that SSB increases the on-balance sheet liquidity through the channel of managerial ability but decreases the off-balance-sheet liquidity.

Several studies also consider the role of capital structure and its determinants in Islamic Banks. Bitar et al. (2018) explore the determinants of capital structure in 28 countries from 1999 through 2013 and find that small banks with higher liquidity, profitability, and working in economies with better market discipline and institutional framework are well-capitalized. They further argue that the architecture of capital structure in Islamic Banks is similar to those presented in the corporate finance theories. Anecdotal evidence shows that Islamic Banks have a higher capital ratio (Toumi, 2019; Korbi & Bougatef, 2017). National cultural values also strengthen the capital-performance nexus (Bitar et al., 2020). Likewise, Ashraf et al. (2016) measured the modified capital ratios based on BASEL III for 136 Islamic Banks in 30 countries and find

that these modified capital ratios increase the stability of Islamic Banks. Recently, Baldwin et al. (2019) developed and tested a model of “alpha” of capital adequacy ratios in Islamic Banks and concluded that implementing a single country might undercapitalize some banks and overcapitalize others.

A burgeoning amount of literature also linked the stability of the Islamic Banking sector with political risk. In this regard, Bitar et al. (2017) assessed if there are any differences in the stability of Islamic vis-à-vis conventional banks operating under political Islamic and democratic system. They identified that Islamic Banks, operating in western countries, face key challenges of financial infrastructure, regulations, and perception which deteriorates the stability of Islamic Banks. Belkhir et al. (2019) exhibit that conventional banks are more sensitive to political risk than Islamic Banks in selective Muslim countries and this sensitivity is 3.6 times higher during the period of economic turmoil than the normal times.

The fundamental feature that makes Islamic Banks different from conventional banks is that the former is not forbidden to make transitions involving interest. However, an evolving amount of literature shows that the performance of Islamic Banks is equally affected by the fluctuation in interest rates. Ergeç & Arslan (2013) and Saraç & Zeren (2015) empirically documented that Islamic Banks adjust their deposit and borrowing rate concerning changes in interest rate in the economy, which implies that Islamic financial intermediation activities are cointegrated and pegged with those of conventional banks. Further, arbitrage activities also force Islamic Bank rate to congregate to the industry benchmark rate.

The role of competition and diversification is also frequently discussed in this stream, especially within the context of profitability and risk-taking of Islamic banks. The preliminary work of Ariss (2010) highlighted that Islamic banks are more focused on traditional financing activities and are less competitive. Several studies also tested the hypothesis of competition-fragility and competition-stability with inconclusive results. Most of these studies supported the competition-fragility i.e., competition increases the risk-taking behavior of Islamic banks (Kabir & Worthington, 2017; Louhichi et al., 2019; Alam et al., 2019). Furthermore, few studies asserted that income and asset diversification reduction does not affect the stability of Islamic banks, however, increases the profitability of conventional banks more (Paltrinieri et al., 2020).

### ***Stream 3: Customer and marketing perspective of Islamic banking***

This stream of literature identifies and discusses the customer perception towards service quality (Abdullah et al., 2011; Ali & Raza, 2017; Hossain & Leo, 2009; Taap et al., 2011; Souiden & Rani, 2015; Fida et al., 2020; Suhartanto et al., 2019; Janahi & Al Mubarak, 2017), customer satisfaction and loyalty (Amin et al., 2011; Amin et al., 2013; Kashif et al., 2015; Kamarudin & Kassim, 2020; Dandis & Wright, 2020) and determinants and selection criteria of choosing Islamic over conventional banks (Hamid & Masood, 2011; Khan et al., 2020; Azmat et al., 2020).

To begin with customer perception towards service quality in Islamic banks, Abdullah et al. (2011) tested a newly designed Bank Service Quality (BSQ) index to understand the opinion of customers towards service quality in Malaysia. They found Islamic Banks with BSQ of 4 to have satisfied customers with

their service quality and perceived it in three dimensions (1) Responsiveness (2) Systemization (3) Reliable Communication. In a similar context but with a different model, Ali & Raza (2017) tested the Service Quality model (SERVQUAL) and maintained that multi-dimensional service quality positively contributes to the customer satisfaction of Islamic Banks in Pakistan. Fida et al. (2020) reported similar results. Customer satisfaction and perception towards Islamic Banks vary depending on the nature of the service (Janahi & Al Mubarak, 2017).

In this context, Hossain & Leo (2009) documented that banks with better infrastructure facilities, bank timing and return on deposit, have higher customer perception. However, few studies also consider religiosity and emotional attachment as the vital factors than service quality towards attaining the satisfaction of customers (Souiden & Rani, 2015; Suhartanto et al., 2019).

Several studies also investigate the factors that influence the loyalty and satisfaction of customers with Islamic Banking services. For example, Amin et al. (2011) asserted the positive relationship of customer satisfaction on intentions and loyalty to switch among non-Muslim and Muslim customers but with greater effect showed by the former. Similarly, Amin et al. (2013) also identified that image and trust of the bank also affect the customer's loyalty and satisfaction. Kashif et al. (2015) tested PAKSERV Model with six factors i.e., tangibility, reliability, sincerity, personalization, assurance, and formality and found all factors to be valid for customer loyalty and satisfaction except reliability. The employees of the bank also play a key role in achieving customer loyalty.

Kamarudin & Kassim (2020) reported that customers are more satisfied with the employees of conventional banks when it comes to empathy, reliability, responsiveness, and assurance, however, customers are more satisfied with the employees of Islamic Banks in terms of tangibility. In contrast, by employing CARTER Model, Dandis & Wright (2020) documented that compliance, assurance and empathy are the most influential factors towards the loyalty of customers in Islamic Banks.

A burgeoning amount of literature also discusses the selection criteria and determinants of choosing an Islamic bank over its counterpart. The decisive factors and determinants that influence the behavior of individuals to choose Islamic Banks are, sharia-compliance, product features, quality of service, convenience and technological advancement (Lee & Ullah, 2011; Hamid & Masood, 2011). Few studies also assess the determinants of Islamic home financing (Khan, et al., 2020). Recently, Azmat et al. (2020) presented the model of "coarse thinking" to convince and attract individuals for the adoption of Islamic Banking services. This model is based on the already existing analogies and metaphors in the mind of a customer to assess a particular item and make his/her decisions. Therefore, Islamic Banks should incorporate coarse thinking in their product advertisement that might make the product appear more sharia-compliant.

#### ***Stream 4: Dynamics of Efficiency in Islamic Banks***

This stream of literature discusses the factors influencing efficiency (Saleh et al., 2020; Abid et al., 2019; Sufian & Kamarudin, 2015; Sufian & Noor, 2009), methodological dynamics of efficiency (Safiullah & Shamsuddin, 2020; Wanke et al., 2019; Wanke et al., 2016a; 2016b; Abdul-Majid et al., 2010; Hassan et al.,

2009) and comparative efficiency of Islamic Banks during financial crises (Safiullah, 2020; Asmild et al., 2019; Alexakis et al., 2019; Othman et al., 2017; Belanès et al., 2015; Rosman et al., 2014).

The preliminary work of Sufian & Noor (2009) suggests that Islamic Banks of MENA region are more efficient than Islamic Banks in Asian economies. However, the efficiency of Islamic Banks is mainly driven by profitability, capitalization, size, loan intensity, management quality and liquidity (Sufian & Kamarudin, 2015). Likewise, Abid et al. (2019) investigated the efficiency of Islamic Banks in GCC countries using stochastic and meta frontier analysis. They concluded that Islamic Banks are facing technological constraints which results in lower production efficiency.

Further, the efficiency of Islamic Banks is largely relied on the bank-specific factors along with macroeconomic and political factors that might influence the performance of Islamic Banks vis e vis conventional banks. Recently, Saleh et al. (2020) identified that non-performing loans and fixed assets are the fuel to inefficiency in Islamic Banks.

This stream also identifies the several methodological approaches used to measure the efficiency level in Islamic Banks. The nature of complexities in the banking business, especially Islamic Banks, has fostered and introduced several approaches and tools to measure efficiency. After the seminal work of Berger & Humphrey (1997), most of the studies have employed parametric approaches such as stochastic frontier analysis (Safiullah & Shamsuddin, 2020; Abdul-Majid et al., 2010) and non-parametric techniques such as data envelopment analysis (DEA) (Wanke et al., 2019; Hassan et al., 2009). Wanke et al. (2016a; 2016b) argue that DEA maximizes the output and minimizes the input, however, the weights of both output and input variables are determined within the ambit of the model which might yield robustness of results. To account for this issue, they introduced the TOPSIS model within Multi-Criteria Decision Making (MCDM) which requires determining the weight of each input and output variable.

The global financial crisis of 2007/08 has also raised serious concerns regarding the operations and efficiency of traditional financial institutions among all stakeholders. Due to the resilient nature of Islamic Banks (Beck et al., 2013; Hassan et al., 2019), it becomes the focal area of research and curiosity for both policymakers and academic scholars to understand the differences in their efficiency in comparison to their counterpart. To this end, Rosman et al. (2014) assessed the efficiency of Islamic and conventional banks of Asian and Middle Eastern economies for the period of 2007-2010 and concluded that most Islamic Banks were scale inefficient, however, overall Islamic Banks were more efficient due to higher capitalization. Belanès et al. (2015) also examined the efficiency of Islamic and conventional banks in three dimensions i.e. (1) Scale efficiency. (2) Technical efficiency and (3) Pure technical efficiency. Despite the decline in efficiency, Islamic Banks remain efficient enough to absorb the shocks of sub-prime crisis. Asmild et al. (2019) and Alexakis et al. (2019) provided similar findings.

Islamic banks operate under the paradigm of partnership financing based on Profit and Loss Sharing (PLS) at least on the liability side of their balance sheet which provides them with an extra layer of protection, especially during a turbulent time. In this regard, Othman et al. (2017) documented the impact

of partnership financing on the efficiency of Islamic Banks in Malaysia and Indonesia during 1996-2012. They reported that banks, having partnership financing in their operations, are more efficient. Nevertheless, the banks which rely more on partnership financing are less efficient during crises time.

Recently, Safiullah (2020) empirically investigated the impact of corporate governance on efficiency and further assessed the differences between normal and crisis times. The results showed that SSB helped Islamic Banks to mitigate inefficiencies both in normal and crisis times but results are more pronounced during crisis times.

## 5. Future Research Directions

The bibliometric analysis followed by structural review guides us to identify several research gaps, which are a vital outcome of any literature review and provides the stimulus to scholarly work to expand the field of Islamic finance in general and specifically to Islamic Banks. These gaps also serve the purpose of policy implications to regulators for bringing structural and institutional reforms to strengthen the Islamic Banking sector and provide them a level playing field. Table 5 describes the list of the future research questions.

Serial No.	Future Research Questions	Reference
1	What are the differences in interpretation of sharia standards and challenges faced by Islamic Banks to design uniform sharia regulations?	Author's Suggestion
2	How the differences in the institutional framework can influence the performance of Islamic Banks?	Author's Suggestion
3	What steps are required to be introduced for measuring the risk management and stability of Islamic Banks?	(Hassan et al., 2019)
4	What is the impact of oil prices on the efficiency and risk-taking behavior of Islamic Banks?	Author's Suggestion
5	Ashraf et al. (2016) proposed a new NFSR, however, its impact on the efficiency and balance sheet structure of Islamic Banking is yet to be investigated.	(Ashraf et al. (2016
6	What is the impact of the regulatory structure and corporate culture on the performance of Islamic Banks?	Bitar et al., 2017; Bitar) (et al., 2020
7	What is the impact of Covid-19 on the performance and risk-taking behavior of Islamic Banks?	Author's Suggestion
8	What are the differences in the nature of crises of the global financial crisis and Covid-19 for dual banking economies?	Author's Suggestion
9	Is gender diversity really a matter of concern for Islamic Banks?	(Bitar, et al., 2017)
10	Why Islamic Banks do not have their own benchmark rate based on Islamic values?	Author's Suggestion
11	What are steps required to reduce the agency issues and develop risk-sharing based products?	Author's Suggestion
12	What are the regulatory and bank-specific steps required to introduce Islamic benchmark rate?	Author's Suggestion
13	If the Islamic benchmark rate is developed, how the monetary policy will be formulated and then translated into the overall economy?	Author's Suggestion
14	Most of the studies on the customer perception regarding Islamic Banks are geographically limited. Future studies should consider cross-country data to understand the factors that influence the behavior of the Islamic Banking customer.	(Hassan & Aliyu, 2018)

15	Do conventional marketing theories fit under the paradigm of Islamic finance?	Author's Suggestion
16	Are customers of Islamic Banks religiously driven?	(Hassan & Aliyu, 2018)
17	Does investment in human capital improve the performance of Islamic Banks macroeconomic framework?	(Nawaz, 2019)
18	Nawaz (2019) tested the impact of investment on human capital on Islamic Banks' performance considering only economic factors. Future studies should consider non-economic factors, such as education, while measuring the variable of investment in human capital.	(Nawaz, 2019)
19	What is the contribution of Islamic Banks in capacity building of society along with protection of the overall ecological system?	Author's Suggestion

To start with, as highlighted by the previous literature (Mollah & Zaman, 2015), SSB plays a central role in the operations and product development of any institution working under the umbrella of Islamic finance. However, there is non-uniformity in the interpretation of sharia rulings (for example, commodity *Murabaha* is not permissible in Pakistan but widely used in Malaysian Islamic Banks) which not only impede product development structure in Islamic Banks but also holistically damage the reputation of the Islamic Banking industry around the globe. Therefore, future studies should be conducted to bring harmony and unanimity and design a framework that should be then implemented in Islamic Banks around the globe.

The stability of Islamic Banks vis a vis conventional banks has also been frequently discussed (Hassan et al., 2019). Most of the literature has used z-score to proxy the bank stability which comes with a limitation and provides misleading results for Islamic Banks.

Islamic banks have investment accounts that should be part of equity rather treating them under the head of deposits, however, these investment accounts are not included in the measurement of z-score. Therefore, future studies might consider designing a new framework of measuring the stability of Islamic Banks.

The inherited structure of Islamic Banks gives strong support to the resilience of the financial system, especially during bad times. Nevertheless, Islamic Banks are mostly concentrated on oil-exporting countries such as GCC or oil-importing countries such as Pakistan. Any fluctuation in oil prices (such as the recent fluctuations in the oil prices) will have a direct influence on the performance of Islamic Banks too. This highlights the gap and calls for new empirical studies to understand the impact of oil prices on the performance of Islamic Banks and the results of such studies will help the Islamic Bank to diversify their balance sheet.

Recently, Ashraf et al. (2016) measured the net stable funding ratio (NSFR) of Islamic Banks as per the requirement of IFSB and its impact on the stability of the Islamic Banking industry. Nonetheless, how much this proposed NSFR can influence the balance sheet structure and efficiency of Islamic Banks is still a puzzle and needs further empirical investigation.

The services of Islamic Banks are faith-driven, they are aligning with cultural norms of society and arguably perform better under sharia or a hybrid political system (Bitar et al., 2017; Bitar et al., 2020). However, future studies should consider the regulatory structure (such as independent auditors, capital stringency), corporate culture (such as nationality of top management) and other factors such as creditor

right and rule of law to understand their impact on soundness of Islamic Banks (Bitar, et al., 2017).

Although the nature of the product is different in Islamic Banks, they are heavily criticized for using interest rate or benchmark rate on which they price their products which is the same benchmark rate as conventional banks. This not only creates confusion in the mind of the customer but also limits the process of product development. Introducing a benchmark rate based on Islamic laws will not only strengthen the trust level among all stakeholders, but also stimulate the product development process and open new business avenues. Similarly, Islamic Banks incorporate risk-sharing products only on their liability side of the balance sheet due to agency issues, which further attracts criticism. Therefore, future studies should consider the development of risk-sharing-based products to meet the true spirit of Islamic Banks.

Recently, Nawaz (2019) showed that Islamic Banks have improved their performance by investing in human capital. Nevertheless, this study ignores the other macroeconomic factors such as inflation, GDP, or political uncertainty. Further, measuring the proxy variable for investment in human capital not only requires economic factors such as monetary investment in human capital but also includes non-economic factors such as level of education, age of employees etc. More studies should consider the aforementioned factors in measuring the investment in human capital and assess whether it improves the performance of Islamic Banks as compared to its counterparts.

Previous studies about the perception of the customers regarding Islamic Banks are limited in scope and consider only a particular city or country, thus, requiring further studies incorporating larger cross-country surveys, which will help Islamic Banks to better cope with the need of customers. Such studies might also consider testing different marketing theories (e.g. consistency theory, network theory) to understand the behavioral aspects of the customers of Islamic Banks.

There is ample amount of evidence that Islamic Banks performed better during the Global Financial Crisis of 2007/08. First, Islamic Banks are forbidden to involve in interest-based and speculative activities, which were among the causes of crises. The crisis started initially due to unsystematic risk through involvement in speculative products such as CDS and mispricing the risk embedded in those products. However, involvement in such activities brings the overall economies at the crossroads and the risk becomes systematic.

Secondly, Islamic Banks are mostly concentrated in Muslim countries, which did not have much exposure in western countries, thus, Islamic Banks did not have any spillover effect during the Global Financial Crisis 2007/08. Nevertheless, the recent Covid-19 crisis has deteriorated all the economies regardless of their business model. How the Covid-19 disaster has impacted the performance of Islamic Banks vis-à-vis conventional banks, is yet to be answered.

Similarly, within the loan structure, past literature mostly focused on the quantity/volume of loans, which are primarily given for consumption purposes. However, the social aspect of Islamic Banks is yet to be explored with practical implementation such as what is the contribution of Islamic Banks in capacity building of the society along with the protection of overall ecological system?

## 6. Conclusion

This paper provides a comprehensive review of the already published literature on Islamic Banks through a hybrid meta-literature review. Under this approach, we incorporated two datasets of 1088 articles published in 1981-2020, extracted from WOS for bibliometric analysis and 1243 articles for content analysis. To understand the influential and intellectual structure, we mainly apply four techniques: a bibliometric citation/co-citation, keyword analysis, bibliographic coupling analysis and content analysis.

Our result divulges the influential aspects of the Islamic Banking literature based on the leading countries, institutions, journals, documents and authors. The content analysis of the literature helps us to identify the main 4 key streams (1) Overview, growth, and Legal framework of Islamic banks. (2) Islamic banks' performance and risk management practices. (3) Customer and marketing perspective of Islamic Banking. (4) Dynamics of Efficiency in Islamic Banks. Finally, this study also provides several future research directions, which are instrumental and policy implications to further strengthen the growth of the Islamic Banking industry.

This research is also subject to some limitations. Firstly, our methodology may miss high-quality papers that currently received no citations. Secondly, we also may have missed papers that are not listed in our main literature source (WOS database), although we reduced this limitation by extending our initial sample towards unlisted or working papers, to the best of our knowledge. However, we did not incorporate additional sources, such as Google Scholar, due to the differently implied data quality.

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