A bibliometric examination of banking research in the GCC region and agenda for future research	

#### Abstract

**Purpose** - This paper provides a comprehensive review of the influential and intellectual aspects of the literature on the Gulf Cooperation Council (GCC) region's banking activities.

**Design/methodology/approach** – This study undertakes a bibliometric meta-analysis review of the GCC region banking literature, covering 199 articles published between 2004 and 2022, extracted from the Web of Science (WoS) database, followed by a content analysis of highly cited papers.

**Findings** - This paper identifies the influential aspects of GCC region banking literature in terms of journals, articles, authors, institutes, and countries. The paper also identifies and discusses five major research clusters: i) bank efficiency, ii) corporate governance and disclosure, iii) performance and risk-taking, iv) systemic risk, bank stability and risk spillovers, and v) intellectual capital. Finally, it identifies gaps in the literature and highlights some important research issues that provide directions for future research.

**Originality** - To the authors' knowledge, this is the first literature review paper on GCC region banking literature. This study provides the regulators, practitioners and academics with valuable insight and an in-depth understanding of the banking system of the GCC region.

## Keywords

GCC region, Banking, Bibliometric analysis, Content analysis

# **Article classification**

Literature review

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Introduction Formatted: Font: Bold

Established in 1981, the Gulf Cooperation Council (GCC) is a political and economic union between six Arab countries, all situated in the Middle East and governed based on an Islamic ethical system: The Kingdoms of Bahrain and Saudi Arabia, the Sultanate of Oman, the States of Kuwait and Qatar, and the United Arab Emirates; (Durugbo et al., 2020). GCC region has high economic importance for being the world's largest regional exporter of crude oil, holding approximately 45% of the world's total oil reserves and responsible for one-fifth of the world's oil production (Maghyereh and Abdoh, 2021, Mirzoev et al., 2020). GCC countries have similar government systems, economic policies and financial regulations, including free trade and capital movements with a high level of trade openness (Khan et al., 2021). The banking industry in the GCC countries is relatively young, with the oldest banks dating back to the 1950s (Ben Khediri et al., 2015, Al-Muharrami et al., 2006). The majority of the bank in this region are financially strong, well-capitalized, hold an extensive network of branches; and have adopted modern banking services (Srairi, 2010). Additionally, the GCC banking sector is one of the largest Islamic banking markets (Alqahtani et al., 2017a).

The GCC banking industry has some unique features that distinguish it from the banking industry in developed countries. Unlike the banking sectors in the developed and some emerging economies, the banking sector of GCC countries are is highly concentrated (Miah and Uddin, 2017) with the top ten (10) GCC banks holding around 50% of the market shares of the whole GCC banking industry (Boulanouar et al., 2021). Another important distinction is the ownership structure. In developed economies, bank ownerships are usually widely held by institutional shareholders. Still, in the GCC region, even after several legal and regulatory reforms (Al-Hassan et al., 2010), the majority of the commercial banks are family owned with

substantial government equity and most of the specialised banks are wholly owned by the government (Boulanouar et al., 2021, Srairi, 2010). All the GCC countries have a bank-based financial system with relatively under-developed financial markets (Maghyereh and Abdoh, 2021, Abuzayed et al., 2018), and rely highly on the banking sector for providing diversified non-traditional banking activities, such as securities market operations, insurance, corporate advisory (AlKhouri and Arouri, 2019). Also, in this region, banks fund government activities by holding government securities at a significantly higher level compared to the global average (Abuzayed et al., 2018, Al-Hassan et al., 2022). These unique features provide the relevance of studying the GCC region's banking sector from different perspectives.

There are many review papers on different aspects of banking, such as banking crisis (Laeven, 2011), Islamic banking (Alshater et al., 2021, Ikra et al., 2021), credit risk (Zamore et al., 2018), systemic risk (Silva et al., 2017), corruption on banking (Bahoo, 2020), and political risk on banking (Janbaz et al., 2022), however, we could not find any banking literature review paper that focuses on GCC region or any other specific region. On Against this backdrop, this paper systematically reviews all the research articles focused on the GCC region banking system to analyse the influential and intellectual aspects of the literature. The bibliometric review examines the influential aspects of GCC region banking literature to find out the most impactful journals, articles, authors, institutes, and countries. The study conducts a through content analysis of the highly cited articles to provide an comprehensive overview of the GCC banking system and, more importantly, identifies and discuss the major themes within the corpus of the GCC banking research field. In addition, this paper indicates the main gaps in existing knowledge and provides guidance forguides future research directions.

To our best knowledge, this is the first paper that reviews the banking literature of a specific region, which is the Gulf Cooperation Council (GCC). This study provides regulators, industry practitioners and academics with valuable insight, in-depth understanding, and future indications on the banking sector of the GCC region. Due to the critical roles Banks perform in a society, banks have a broad and sizeable impact on many social challenges. Banks serve as the intermediator among diverse parties to facilitate financial transactions. Banks directly impact people by managing their money and wealth. Banks also shape the business through the allocation and distribution of capital to each line of business in the real economy, from retail and small businesses to the corporate borrowers. Based on the economic importance of the GCC region as the world's largest exporter of crude oil, an efficient and sound banking system is very important for these countries. Therefore, research exploring different aspects of the banking system in the GCC region has significant importance to regulators and policymakers around the globe. Hence, the objective of this study is to provide a comprehensive understanding of the GCC banking system.

The paper is organised as follows. In the next section, we describe the banking sector of GCC countries, highlighting the importance of the region's banking system. Then we describe the methodology and data extraction process followed by initial descriptive statistics, results of performance analysis employing bibliometric techniques, and scientific mapping revealing the major research clusters. After that, we present a detailed content analysis of highly cited articles along with some future research directions based on our content analyses. Finally, we provide our concluding remark.

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The Gulf Cooperation Council (GCC), or the Cooperation Council for the Arab States of the Gulf, is a regional intergovernmental political and economic union of six Arab states of the Persian Gulf: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). All these countries are monarchies, have the same social characteristics, and are among the wealthiest nations with a heavy dependence on oil for their wealth. In the year 2020, the GDP per capita of all six GCC countries were much higher than the world average of US\$11313, with Oman at \$ 14,485.4, Saudi Arabia at \$ 20,110.3, Bahrain at \$ 20,410.0, Kuwait \$ 24,811.8, UAE \$ 36,284.6 and Qatar \$ 50,124.4 (Qanas and Sawyer, 2022). All national currencies in the GCC region are directly pegged to the U.S. dollar to avoid currency fluctuation and eliminate uncertainties in international transactions, only Kuwaiti Dinar is pegged to an undisclosed basket of currencies, but the basket is heavily weighted towards the U.S. dollar (Adedeji et al., 2019). The rationale behind this currency peg is the oil price is fixed in dollars. As oil is the primary source of revenue for all GCC countries, any exchange rate fluctuation could drastically reduce income if the currencies were not pegged with the U.S. dollar. However, this currency pegging restricts the independence of monetary policy, forcing macroeconomic management to rely mostly on fiscal policy and prudential regulation (Basu et al., 2015).

Unlike the market-based Western economies, the financial systems of GCC countries are highly reliant on banks. At the end of 2020, GCC Banks' total assets reached \$2.6 trillion, about 180 per cent of GCC GDP, from \$1.6 trillion or 102 per cent of GDP in 2013 (Al-Hassan et al., 2022). In all GCC countries, the banking sector is the second-largest contributor to the country's GDP after the oil and gas sector (Ali et al., 2022). Among the GCC countries, UAE

has the most extensive banking sector, Saudi Arabia is the largest regional economy, and Bahrain ranks first for banking system depth (Khan, 2022). The GCC banking systems are highly concentrated: the top four banks account for more than 40 per cent of assets in the UAE and Bahrain, about 60 per cent of assets in Saudi Arabia, and about 70 per cent of assets in Kuwait, Qatar, and Oman (Ltaifa et al., 2018). The GCC banking sector is one of the world's largest Islamic banking markets, with a dual banking system where Islamic banks operate alongside conventional banks (Mabkhot and Al-Wesabi, 2022).

In the GCC region, central governments and the nonfinancial corporate sector are the two primary net borrowers. In contrast, on the creditors' side, the household sector and external capital flows remain an essential source of funds to the banking system, followed by the nonfinancial corporation and government sectors (Al-Hassan et al., 2022). The nNonbank financial institutions (NBFIs), such as pension funds, asset management and finance companies, and insurance, generally do not engage— in credit intermediation (Ltaifa et al., 2018). Additionally, GCC region banks play an essential role in the intermediation of foreign capital, and the foreign capital inflows are matched mainly by the banks' build-up of foreign assets. During the past decade, the financial assets and liabilities denominated in foreign currency almost doubled, from around 90 per cent in 2010 to about 180 per cent of GDP in 2020 (Al-Hassan et al., 2022).

A wave of reforms targeted the modernisation of the financial stability policy frameworks and financial safety nets along with improved banking supervision helped to enhance banking sector resilience in the GCC region (Qanas and Sawyer, 2022, Ltaifa et al., 2018), however, the GCC banking markets remain less competitive than other banking markets, such as Singapore, due to high level of state ownership and lesser presence of foreign banks (Alqahtani

et al., 2017a). With around 16 per cent of loan portfolios in the trade and services sectors, asset quality in the banking systems is susceptible to any external shock like the COVID-19 pandemic (Al-Hassan et al., 2022). Though the GCC banks are well-capitalised and profitable, there are concerns that weaker economic activity, lower oil prices and higher inflation can lead to a deterioration in asset quality and a decrease in capital buffers.

## 3 Methodology

Following Linnenluecke (2017) and Bretas and Alon (2021), this paper combines bibliometric analysis and content analysis methods to review the banking literature of the GCC region. This paper follows the bibliometric research protocol suggested by Donthu et al. (2021) and the content analysis protocol suggested by Gaur and Kumar (2018). Bibliometric analysis is a useful method to interpret and map the intellectual structure of a scientific field by employing statistical methods (Donthu et al., 2021, Hota et al., 2020, Baker et al., 2021b). A key strength of the bibliometric analysis is that being a quantitative technique, it is more powerful and efficient than the human mind in reviewing voluminous literature (Wolf, 1986). The bibliometric approach increases reliability and reduces the subjective bias of literature reviews by analysing a large number of data and employing a transparent, reproducible search and review process (Bretas and Alon, 2021, Vogel and Güttel, 2013, Garfield, 1979). Combining bibliometric techniques with content analysis, a research technique used to identify and summarize the trends in the extant literature and measure latent constructions of a research field (Duriau et al., 2007, Short and Palmer, 2008, Gaur and Kumar, 2018), allows scholars to develop a comprehensive understanding of the intellectual structure of a research field and guide them to develop a set of future research directions (Hota et al., 2020).

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According to Donthu et al. (2021), the techniques for bibliometric analysis can be divided into two categories:(1) performance analysis and (2) science mapping. Descriptive performance analysis examines the contributions of research constituents (e.g., authors, articles, institutions, countries, and journals) to a given field. On the other hand, Science mapping displays the relationships between research constituents (Baker et al., 2021b). Different science mapping techniques, such as citation analysis, co-citation analysis, and bibliographic coupling, are instrumental in presenting the intellectual structure of a research field (Baker et al., 2021a).

This paper uses the Bibliographic coupling technique to identify the major research clusters in the GCC banking literature. Bibliographic coupling operates with the assumption that if two publications share common references, then they are similar in their content (Munim et al., 2020) and among all the citation-based bibliometric science mapping techniques, bibliographic coupling captures a research field most accurately (Boyack and Klavans, 2010). This paper employs the Biblioshiny package within the R studio software (Ahmi, 2022) for performance analysis and VOSviewer software (Van Eck and Waltman, 2010) for bibliographic coupling. VOSviewer uses a mapping technique named visualization of similarities (VOS) to provide distance-based visualizations of bibliometric networks (Van Eck and Waltman, 2010).

# 3.1 Sample selection and data collection

This study used a two-stage data extraction approach (Bretas and Alon, 2021), first, we performed a topic search, a combination of title, abstract, author keyword and keywords plus, within the ISI Web of Science (WOS) academic journal database using a combination of the following keywords: ("Bank\*" OR "Financial institution\*" OR "financial intermedia\*") AND ("GCC" OR "Gulf Countries"). WOS is a prominent academic database that includes five databases, recognizing many high-quality journals starting from 1900, covers more than 21,000

journals with over 174 million records and has been used by many previous influential bibliometric literature review articles (Bahoo et al., 2020, Maditati et al., 2018, Zamore et al., 2018). The initial search provides us with 351 articles. After filtering the resulting articles by WOS research categories (business finance or economics or business or management or international relationship), document type (articles only) and language (English only), we were left with 270 articles at the end of the first stage.

In the second step, we examined the 270 articles (through a review by two authors) to ensure their appropriateness for inclusion in further analysis. We only included the articles that explored the GCC banking sector as a whole or compared GCC banks with banks of other countries or regions. The articles that failed to qualify for the final dataset primarily focused on the stock market, insurance sector, or macroeconomic growth. Finally, 199 articles were selected for bibliometric analysis and their title, author name(s) and affiliation, journal name, number, volume, pages, date of publication, abstract and cited references were extracted for bibliometric analysis. Table 1 illustrates the detailed data searching and extraction process.

# <Insert Table 1 Here>

After extracting the data for bibliometric analysis, we further select key articles for the content analysis. First, we selected 51 highly cited articles with ten or more total citations were selected. We then conducted a detailed assessment of the articles and developed a content analysis matrix using MS Excel. Following the content analysis coding protocol suggested by Gaur and Kumar (2018), we have included the following information in our matrix: title, authors, year of publication, research themes, purpose and research questions, data type, data source, methodology, theories, key findings, and suggested future research directions.

#### 4 Bibliometric analysis

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4.1 Initial data statistics

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The 199 articles in our sample were written by 333 authors and published in 89 journals. All these articles are collectively cited 2,309 times, with an average citation per document of 11.60. The first paper in our dataset was published in 2004 in Service Industries Journal. The summary statistics of our final dataset are shown in Table 2.

## <Insert Table 2 Here>

Figure. 1 illustrates the annual production of banking literature focused on the GCC region and yearly total citations. Though the first article was published in 2004, the GCC banking literature started rising from in 2015 after the historical oil price crash of 2014 (Siddiqui et al., 2020). The figures shows a continuous growth in the GCC banking literature from 2015, especially since there was a big spike in recent years which depicts the growing importance of GCC banking literature.

## <Insert Figure 1 Here>

4.2 Most relevant journals, articles, institutions, and authors

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Table 3 reports the top 20 journals that publish banking articles focused on the GCC region. These 20 journals have published at least three (3) or more articles and accounted for around 60% of the total citations (1370 total citations). Among the 69 journals, 21 journals published two (2) articles and 48 journals published one (1) article; however, those journals are not reported in this paper due to space limitations. The result shows that the Journal of Islamic Accounting and Business Research topped the list with 24 articles, followed by the

International Journal of Islamic and Middle Eastern Finance and Management (18 articles), and the Pacific-Basin Finance Journal (six articles). However, articles from the International Journal of Islamic and Middle Eastern Finance and Management received the highest number of citations (243 total citations), followed by Research in International Business and Finance (207 total citations).

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Table 4 lists the top ten (10) most cited banking articles from the GCC region, along with the name of their authors and journal, total citations, and average total citations per year. Platonova et al. (2018) is the most cited article, with 173 total citations, followed by Srairi (2010) and Al-Muharrami et al. (2006) with 120 and 88 total citations, respectively.

# <Insert Table 4 Here>

Table 5 reports the top 20 most impactful authors within our sample dataset. The table reveals that Saif-Alyousfi from Taiz University is the top author with the highest number of articles (seven articles), followed by Alqahtani and Buallay (six articles each). However, Mehmet Asutay from Durham University is our sample's most cited author (203 total citations from 4 articles).

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Among the 20 most relevant institutes (Table 6) that publish articles on the GCC region banking sector, Qatar University has the highest number of publications (16 articles), followed by Ahlia University (14 articles) and the Manouba University (11 articles). Among these 20

institutes, eight universities (40%) are from the GCC region, 15 institutes (75%) are from developing and emerging countries, and five institutes (25%) are from developed countries.

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Table 7 lists the top 22 countries that have contributed to GCC region banking literature with a minimum of 2 articles. Saudi Arabia is the country with the highest number of publications (29 articles), followed by the United Arab Emirates (23 articles) and the United Kingdom (21 articles).

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Table 8 reports the top 20 journals referred by the articles within our sample dataset. The table shows 706 articles from the Journal of Banking and Finance, followed by the Journal of Financial Economics (254) and the Journal of Finance (192).

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## 4.3 Bibliographic coupling

Figure 2 depicts the bibliographic coupling network mapping for the GCC region banking research field, which is dominated by five major research clusters. This bibliographic coupling network mapping is constructed using 52 articles with at least ten or more citations. Based on our content analysis of these articles within each cluster, we named the primary research cluster as 1. bank efficiency (represented by green lines), 2. corporate governance and disclosure (represented by red lines), 3. performance and risk-taking (represented by blue lines), 4. systemic risk, bank stability and risk spillovers (represented by yellow lines), and 5. intellectual

capital (represented by purple lines). The content analysis section discusses these research clusters in detail.

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#### 5 Major Research Themes

This section discusses the five major research clusters within GCC region banking literature.

A detailed analysis of the top-cited papers is also given in Appendix-1.

# 5.1 Bank Efficiency

This cluster covers studies that investigate the efficiency of the commercial banks operating in the GCC region by taking different angles, such as a comparison between Islamic and conventional banks (Srairi, 2010, Kamarudin et al., 2013), impact of global financial crisis (Alqahtani et al., 2017a, Belanes et al., 2015, Alexakis et al., 2019), merger and acquisition in banking (Gattoufi et al., 2014), and country-level governance (Kamarudin et al., 2016, Al-Gasaymeh, 2020). Srairi (2010) is the most cited article in this cluster (120 citations) followed by Gattoufi et al. (2014) with 70 citations.

Srairi (2010) finds that GCC banks are relatively more efficient at generating profits than controlling costs, and conventional banks are more efficient than Islamic banks in terms of cost and profit efficiency levels. Kamarudin et al. (2016) find similar revenue, cost, and profit efficiency results. A possible reason for Islamic banks' lower cost performance is the higher costs associated with maintaining the Shariah Supervisory Board and developing complex Shariah-compliant products (Alexakis et al., 2019).

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Alqahtani et al. (2017a) find that during the global financial crisis (GFC), Islamic banks were more cost-efficient than conventional banks and managed to narrow down the inherent gap in terms of profit efficiency. This result supports the theoretical argument that Islamic banks were less exposed to the GFC due to their constraints on trading prohibited assets under Islamic finance principles. However, when the financial shock spilt over to the real economy during the later stage of the GFC, Islamic banks suffered more than conventional banks in terms of profit efficiency and lost the cost-efficiency superiority gained during the GFC (Alqahtani et al., 2017a). This result may suggest that Islamic banking is closely linked to real economic conditions, while conventional banking is more closely linked to the global financial industry.

Kamarudin et al. (2016) report that greater voice and accountability, government effectiveness, and the rule of law enhance the revenue efficiency of both Islamic and conventional banks. Al-Gasaymeh (2016) reports that banks from low country risk and low market concentration are more efficient, while Al-Gasaymeh (2020) reports that enhancing economic freedom is crucial for the region to attract more investments and create a viable banking system.

## 5.2 Corporate Governance and Disclosure

This cluster covers studies investigating the relationship between corporate governance and disclosures and the financial performance of commercial banks in the GCC region. Specifically, these articles explore different corporate governance mechanisms (Kolsi and Grassa, 2017, Al-Malkawi and Pillai, 2018), Shariah governance (Grassa, 2016, Ajili and Bouri, 2018, Elamer et al., 2020, Nomran and Haron, 2019), board structure (Bukair and Rahman, 2015), corporate social responsibility (Platonova et al., 2018, Harun et al., 2020), and sustainability reporting (Buallay and Al-Ajmi, 2020). The most cited article in this cluster

is Platonova et al. (2018) followed by Grassa (2016) with 173 and 37 total citations, respectively.

Bukair and Rahman (2015) find that board size and composition have a negative effect, while the separation of the CEO and chairman role have no effect, and the chairman independence positively affects GCC banks' performance. Buallay and Al-Ajmi (2020) show that audit committee (AC) size, independence and number of meetings positively impact sustainability disclosure, while, interestingly, AC members' financial expertise restricts sustainability disclosure.

Platonova et al. (2018), find a significant positive relationship between corporate social responsibility disclosure (CSRD) and the financial performance of GCC Islamic banks. In a similar study, Harun et al. (2020) report a significant positive association between board size and CSRD practices and a significant negative association between chief executive officer (CEO) duality with CSRD. However, both studies report a lack of corporate social responsibility disclosure practices among the Islamic banks in GCC countries and conclude that Islamic banks should enhance their CSRD practices to ensure that their operations and activities are in line with Islamic banking principles rather than diverging from such ethical behaviour for the sake of making more profit (Platonova et al., 2018, Harun et al., 2020).

Srairi (2019) reports that the average transparency index of Islamic banks in GCC countries is relatively low, these banks must improve their transparency through better disclosure, especially on both corporate governance and Sharia governance. Grassa (2016) reports that the credit ratings of Islamic banks in Southeast Asia are higher than GCC Islamic banks. On the other hand, Elamer et al. (2020) state that GCC banks have a more robust Shariah governance

structure and higher operational risk disclosures compared to non-GCC banks from the Middle

East and North Africa (MENA) region.

# 5.3 Performance and Risk-taking

This cluster covers studies that investigate the performance and risk-taking behaviour of the commercial banks in the GCC region from different perspectives-, such as comparison between Islamic and conventional banks (Ben Khediri et al., 2015, Alqahtani et al., 2017b), nonperforming loans (Alandejani and Asutay, 2017), diversification (AlKhouri and Arouri, 2019, Ashraf et al., 2016), loss provisioning (Zoubi and Al-Khazali, 2007), market structure (Al-Muharrami et al., 2006, Saif-Alyousfi et al., 2020), and transparency (Srairi, 2019). Al-Muharrami et al. (2006) is the most cited article within this cluster (88 total citations) followed by Ben Khediri et al. (2015) with 75 total citations.

Alqahtani et al. (2017b) investigate the operating performance of Islamic and conventional banks (before, during and after the 2007 global financial crisis), and find that Islamic banks are better capitalised, more liquid and have higher intermediation levels, while conventional banks out-perform Islamic banks in management efficiency, fee income, return on shareholders' equity, and asset quality. In a similar study, Ben Khediri et al. (2015) find that Islamic banks are more profitable and liquid, better capitalized, have less credit risk, are less involved in off-balance sheet activities, and have more operating leverage. However, Gonzalez et al. (2017) show that Islamic banks are riskier than conventional banks due to the complexity of the Islamic banking model, finance contracts, and operational limitations on investment and risk management activities.

Alandejani and Asutay (2017) find that Islamic Banks' lending portfolios in the GCC region are highly concentrated towards real estate and construction projects, which increases the risk exposure. Hence, they suggest GCC banks should diversify their lending portfolio to other sectors within the real economy. Ashraf et al. (2016) find that banks engaged in substantial feebased non-traditional activities are less risky than banks that generate their incomes mainly from traditional intermediation activities. Abuzayed et al. (2018) find evidence of a non-linear relationship between non-interest income and stability, indicating that a higher level of diversification reduces bank risk. On the contrary, AlKhouri and Arouri (2019) suggest that investors should rely more on banks' loan specialization while valuing banks rather than on their ability to diversify across revenues and non-interest income. They report that a higher level of non-interest income diversification has a negative association with the performance of Islamic banks, while it does not affect conventional banks. Additionally, they find asset diversification positively impacts Islamic banks and is valued positively by investors; however, it is valued negatively by conventional banks' investors.

Saif-Alyousfi et al. (2020) find that higher market power, lower level of competition and lower concentration in the banking market increase the bank's risk-taking and decrease the stability of lower capitalized, less liquid and small banks in contrast to the highly capitalized, highly liquid and large banks. Ashraf et al. (2016) report that a higher concentration of ownership in any type of shareholding is associated with higher insolvency risk. Srairi (2019) finds that increased transparency has significantly reduced insolvency risk for Islamic banks. Al-Shboul et al. (2020) find that conventional banks are less exposed to political risk than Islamic banks. Gonzalez et al. (2017) find that an increase in competition leads to an increase in the insolvency risk for the banks in the GCC region.

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This cluster includes studies focusing on systemic risks, bank stability, and risk spillover to the banking sector from commodity markets. Alqahtani and Mayes (2018) is the most cited article in this cluster, with 38 total citations, followed by Abedifar et al. (2017) with 28 total citations.

Abedifar et al. (2017) explore the systemic importance of Islamic banking and the stability of dual banking systems and find that the conventional banks with Islamic windows are the most systemically vulnerable and interconnected. While Alandejani et al. (2017) argue that Islamic Banks in the GCC region are more vulnerable to the risk of failure than conventional banks because conventional banks are larger and more associated with government ownership. Similarly, Alqahtani and Mayes (2018) find that conventional banks are more stable than Islamic banks; however, the difference is significant for large banks but not for small ones. Abidi et al. (2022) find that robust internal governance mechanisms mitigate systemic risk for GCC region banks.

Mensi et al. (2019) examine the dynamic risk spillovers and hedging effectiveness between two important commodity markets (oil and gold) and the bank stock indices for GCC countries. They find that oil, gold, and the conventional bank stock indexes of Saudi Arabia, Kuwait and Qatar are net contributors of volatility spill-over to the other markets, while all the Islamic bank indexes and the conventional bank indexes of UAE and Bahrain are net recipients of volatility spillovers. Maghyereh and Abdoh (2021) find oil supply shocks cause economic instability and increase bank systemic risk in the GCC region because GCC is the largest global oil producer and supplier.

#### 5.5 Intellectual Capital

total citations, respectively.

This cluster covers studies that investigate the impact of intellectual capital (IC) on the financial performance of commercial banks operating in the GCC region. The most cited article within this cluster is Al-Musali and Ismail (2016) followed by Ousama et al. (2020), with 34 and 18

Al-Musali and Ismail (2016) report that IC positively impacts banks' financial performance indicators in all the GCC countries, while Qatar has the best IC performance and Bahrain has the least. Ousama et al. (2020) find that the human capital (HC) component of IC has a higher impact than the other two components, i.e., capital employed (CE) and structural capital (SC). In a similar study, Buallay et al. (2020) find that HC and CE influence operational performance; SC and CE influence financial performance, while market performance is influenced only by relational capital (RC).

Interestingly, Al-Musali and Ismail (2015) find that board demographic diversity, educational level and nationality, have no association with the IC performance of the banks in the GCC region. A possible reason behind this insignificant relationship can be the presence of high information asymmetry within the corporate governance environment of <a href="mailto:the\_GCC">the\_GCC</a> region (Chahine, 2007) which hinders the efficiency of the qualified board members. Nawaz (2017) finds that IC helps GCC Islamic Banks to improve their chances of survival and to maintain their profitability before and after the global financial crisis. Still, surprisingly, the Shariah governance, which is the primary governance mechanism of IBs, has no significant role in this result.

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In this section, we explored future research avenues for GCC region banking literature. Through our content analysis of the highly cited papers, we first identified the future research agenda suggested by existing literature and converted them to research questions (Appendix-2). Finally, we have identified several gaps in knowledge in the GCC banking literature and propose our research suggestions for future research.

Scholars have suggested that the relationship between Corporate Governance and financial performance can be further explored by adding other essential governance variables such as ownership structures, CEO compensation, gender diversity and SSB members' remuneration (Ajili and Bouri, 2018, Kolsi and Grassa, 2017). As the GCC banking sector is highly concentrated, we suggest that future research may also investigate how different levels of ownership concentration and types of majority shareholders moderate the relationship between corporate governance and bank performance.

GCC banks rely heavily on chief executive officers (CEOs) and influential board members for decision-making and those individuals are often appointed to steer the bank in conformity with the government's economic and political strategies (Ousama et al., 2020). Therefore, future studies should focus more on CEO and board members' attributes, political connections, and influence. Besides empirical studies, qualitative studies based on interviewing CEOs, top executives, and influential board members may shed more light on the uniqueness of the GCC banking sector. Bank directors from the GCC region work in an environment characterized by high information asymmetry (Chahine, 2007), and do not receive sufficient and appropriate information about corporate strategy (Al-Musali and Ismail, 2015). Future research may investigate whether this opaque environment leads to agency problems. Chahine and Tohmé

(2009) claim that in the GCC region, the local directors are better connected with the top managers; hence there might be a possibility that the foreign directors are not being able to make significant contributions to GCC banks. Future research may investigate whether foreign board members experience difficulties promoting better corporate governance mechanisms in the GCC region.

Hofstede (1993) argues that organisations are culture-bound, and managers are not separable from their indigenous cultures. GCC countries have unique social and cultural environments influenced by high group-ism, masculinity, and hierarchical relationship (Kabasakal and Bodur, 2002, Al-Omari, 2008, Aldulaimi, 2019) which differs from developed countries. Future studies may focus on the influence of national and organisational culture on GCC region banks using different cultural models such as Hofstede's cultural dimensions and Maslow's hierarchy of needs. Also, future research can focus on the lack of diversity in GCC banks' boards, as they do not include ethnic groups in the boards, and there is a weak presence of women on those boards (Al-Musali and Ismail, 2015),

Since the GCC region has one of the world's largest Islamic banking markets, a large number body of banking literature based on this region either solely focuses on Islamic banking or compares Islamic banking with conventional banking from different angles. However, the findings from the studies raise several questions about the effectiveness of Islamic banking. The scope of Islamic corporate governance extends beyond the conventional corporate governance practices and operates largely in line with the objectives of Islamic law (Obid and Naysary, 2016). In Islamic banking, Shariah Supervisory Board (SSB) is the primary corporate governance (CG) mechanism of IBs (Ajili and Bouri, 2018). Belanes et al. (2015) find that though Islamic banks have succeeded in mobilizing large amounts of deposits, especially

during the GFC, this phenomenon cannot be explained by the better performance of Islamic banks compared to their conventional peers. Instead, the religious motivations of the depositors, who are looking for Sharia compliance, contributed to the increase in deposit volume. However, Ajili and Bouri (2018) and Nawaz (2017) conclude that Shariah governance falls short of explaining the growth trends in the Islamic banking industry. Similarly, Grassa (2016) reports that Islamic banks' credit ratings are negatively associated with the supervisory role of the Shariah board. Additionally, Platonova et al. (2018) find that most IBs report significantly less than the level expected by Islamic ethics. So, there might be a need for further research on the usefulness of the Shariah Supervisory Board.

Finally, as the GCC banking sector is very dynamic and highly connected with the Global economy, future research may also focus on how recent world events, such as COVID-19, Russian- Ukraine war, hikes in interest rates and rising inflation, effect affect the GCC banking sector and how GCC banks cope with those adverse situations.

# 7 Conclusion

This paper comprehensively analyses influential aspects and conceptual structure of banking activities research on the GCC region by systematically reviewing a sample of 199 articles published in 89 journals between 2004 and 2022 using bibliometric and content analysis methods. This sample of 199 articles was extracted from the Web of Science database. To our knowledge, this is the first literature review paper on GCC region banking literature.

The results of bibliometric citations analysis, conducted using Biblioshiny Package of R software, show that the Journal of Islamic Accounting and Business Research and the International Journal of Islamic and Middle Eastern Finance and Management are the top two

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journals in terms of the number of articles published, however, articles from International Journal of Islamic and Middle Eastern Finance and Management received the highest number of citations. Saif-Alyousfi from Taiz University is the top author with the most articles, but Mehmet Asutay from Durham University is the most cited author within our sample. By employing the bibliographic coupling technique using VOSviewer software, this paper finds five major research clusters within GCC region banking literature: i) bank efficiency, ii) corporate governance and disclosure, iii) performance and risk-taking, iv) systemic risk, bank stability and risk spillovers, and vi) intellectual capital. The paper provides a detailed content analysis of these research clusters, identifies future research agenda suggested by scholars and explores additional gaps in knowledge.

This paper is not free from any bias or limitation. Bibliometric The bibliometric analysis treats the importance and influence of an article based on its citations, but it takes time for a research article to be recognised for its true potential. So, more recent articles might not show their true potential in a bibliometric study. Our analysis is also limited to articles indexed in the Web of Science database and written in English. Though the Web of Science database encompasses a wide range of multidisciplinary journals, there is a chance that some relevant articles are not included in the Web of Science database or written in another language, such as Arabic. Moreover, we could not discuss the findings of all the articles in the content analysis section due to space limitations. Future studies may incorporate other databases and articles written in other languages or use other literature review techniques to investigate the intellectual structure of GCC region banking literature.

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