Bibliometric Analysis on Islamic and Conventional Money Demand

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The Islamic finance industry in the world has been snowballing in the last ten years. In its implementation, the Islamic financial system does not use an interest rate system but uses a profit-sharing system. The increase in global Islamic financial assets is in line with the theory that states that the profit-sharing system is better than the interest system because the Islamic money demand model, which uses the profit-sharing system, tends to be more resistant to shocks compared to the conventional money demand model which uses the interest system. This research aims to prove the validity of this theory. By using the method of bibliometric, the author found 391 studies that discussed "Islamic and Conventional Money Demand". The results show that there are 5 cluster which have become research paths, namely the Economic Policy Framework and Financial Analysis, Real Sector Activities, Economic Research Matrix, Financial Governance in Dual Banking Systems, and Money Markets.

Keywords: Islamic Money Demand; Conventional Money Demand; Bibliometric
INTRODUCTION

The Islamic financial system is a financial system based on sharia principles. The Islamic finance sector is a sector with market segmentation that has been experiencing growth in recent years. Total assets owned and managed by international Sharia financial institutions will reach US$3 trillion in 2022 and are predicted to grow to US$3.3 trillion by the end of 2024. The increase in Sharia financial assets cannot be denied by the increase in banking assets in Islamic countries (Global, 2023).

The countries that are the prominent supporters of Sharia banking assets are Saudi Arabia and Kuwait, which will contribute 92% of the increase in Sharia banking assets throughout 2022. Meanwhile, sharia banking in Southeast Asia is projected to increase by 8% in the next few years. However, the increase in Sharia banking assets is projected to grow in Turkey and Egypt. Though Libya Türkiye is experiencing depression, Egypt is under pressure.

Based on the number of issuers with high capital requirements, especially in Egypt and Turkey, this has caused these two countries to shift their focus to the sukuk market. However, it cannot be denied that the growth of Islamic finance in the international world still needs to be improved by structural weaknesses. For this reason, more substantial standardization is needed to improve geographical market segmentation in the Islamic financial market. So, Islamic finance is not seen as just a local industry, considering the high segmentation in Middle Eastern and Southeast Asian countries only (Global, 2023).

The history of the establishment of Sharia banks in Indonesia was pioneered by PT Bank Muamalat Indonesia (BMI). Bank Muamalat was officially established on November 1, 1991. At first, Islamic banks received little attention from a legal perspective. Positive law regarding Sharia banking products is only stated in one paragraph of Law No. 7 of 1992 concerning banks with a profit-sharing system. However, since 1998, the People’s Representative Council (DPR) amended this regulation to become Law No. 10 of 1998 concerning the dual banking system (OJK, 2018).

This regulation gave rise to many other Sharia banks being established. Among them are Bank IFI, Bank BTN Syariah, Bank Syariah Mandiri, Bank BRI Syariah, Bank Bukopin, BPD Aceh, and others. With the emergence of legislative products regarding the legal certainty of Sharia banking, there has been an increase in activity in the Sharia financial market. From 2009 to 2010, there was an increase in Sharia Commercial Banks (BUS) from initially 5 BUS to 11 BUS (OJK, 2018).

Sharia banks, apart from having the responsibility to manage customer funds, also have a responsibility to worship Allah and a moral responsibility to society. Indirectly, customers and parties within Sharia banks have implemented it to spread the teachings of Islam and avoid usury. Moral responsibility is also carried out by Sharia banks by channeling customer funds to halal sectors (Utama, 2020).

Sharia Bank applies principles of Corporate Governance (GCG) and Sharia principles simultaneously. There are five GCG principles implemented based on Article 34 Paragraph (1) of Law Number 21 of 2008, namely transparency, accountability, responsibility, professionalism, and fairness. The implementation of GCG in Islamic banks is also driven by enthusiasm for interest in worship. Sharia principles are applied with the values of benefit, balance, justice, and universality. These four values are several parts of Islamic teachings that are aimed at the benefit of the people in the economic field (Hasnati et al., 2019). This study will try to map research related to Islamic and conventional money demand using a bibliometric analysis approach.

METHODOLOGY

This research uses bibliometric methods with various publications of scientific articles regarding "Islamic and Conventional Money Demand". Journal articles were collected by searching journal publications in Scopus by using the keyword "Islamic or Conventional Money Demand". Then, an article search was carried out by collecting research that was relevant to the research theme. DOI is the main criterion that filters the journal collection process. Once metadata, which was downloaded from Scopus, metadata is then processed into software the VOSviewer.

Software: It is able to display a map of journal authors based on keyword data. Therefore, this research was carried out with an analysis of keyword staging. This research uses a qualitative descriptive approach with meta-analysis and descriptive and constructive statistical literature studies from 391 publications discussing "Islamic and Conventional Money Demand". Meta-analysis is a method that integrates previous research related to a particular topic to evaluate published research results. Furthermore, the data collected will be built into a theme that is easier to understand and become a research path.

RESULTS

This research discusses "Islamic and Conventional Money Demand" through a literature study of 391 indexed journal Scopus articles on September 5, 2023. Bibliometrics is a research method used to examine scientific papers by considering publications, patents, citations, and other factors by gathering research background, collecting database research, and determining the primary indicators that will be used.

In this research, keyword analysis and important terms were used in this mapping. Mapping is carried out
to determine the configuration, knowledge, dynamics, dependencies, and interactions of all these components. Mapping is carried out using several indicators such as author and research path.

Bibliometric Mapping

By using the software VOSviewer To carry out bibliometric analysis, several authors have published scientific papers in the field of "Conventional and Islamic Money Demand Functions". The following figure represents these results;

The yellow color in the image above represents the density cluster on the bibliometric map above. The yellow color in the picture above also depends on the relationship with one another. Through this, readers can find out which authors have published the most works. This density is influenced by writers who work together to write a scientific work. The denser the cluster and the brighter the points marked in yellow, the greater the number of journal article publications related to "Conventional and Islamic Money Demand Functions".

Table 1: Document Types

<table>
<thead>
<tr>
<th>Author</th>
<th>Journal</th>
<th>Country</th>
<th>Citation</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copeland C.</td>
<td>Journal of Macroeconomics</td>
<td>USA</td>
<td>Gregory A.W.; Hansen B.E</td>
<td>Boston College</td>
</tr>
<tr>
<td>Abdullah A.</td>
<td>Journal of Monetary Economics</td>
<td>English</td>
<td>Chang S.-C.; Lee M.-S</td>
<td>Queen’s University</td>
</tr>
<tr>
<td>Cuthbertson K.</td>
<td>Journal of Money Credit, and Banking</td>
<td>Australia</td>
<td>Feenstra R.C</td>
<td>University of Rochester</td>
</tr>
<tr>
<td>Henderson H.</td>
<td>Journal of International Money and Finance</td>
<td>Iran</td>
<td>Leeper E.M.; Roush J.E.</td>
<td>National Cheng Kung University</td>
</tr>
<tr>
<td>Huang T.-H; Shen C.-H</td>
<td>Humanomics</td>
<td>Japan</td>
<td>Nelson E.</td>
<td>University of California</td>
</tr>
<tr>
<td>Ma G.</td>
<td>Journal of Cleaner Production</td>
<td>Malaysia</td>
<td>His X.</td>
<td>Bank of England</td>
</tr>
<tr>
<td>Yamamoto M.</td>
<td>The Quarterly Review of Economics</td>
<td>Taiwan</td>
<td>Tang T.C.</td>
<td>Monash University Malaysia</td>
</tr>
</tbody>
</table>
Based on the table above, it is known that the author who has written the most about this theme is Copeland C., who has written three publications. The country that has published the most scientific works regarding the demand for Islamic and conventional money is the United States, with 117 articles with 3,406 citations. The sources that most published is Journal of Macroeconomics with 12 documents published. The authors with the most cited articles are Gregory A.W and Hansen B.E, who have been cited 1299 times. The institution whose scientific works are most cited is Boston College, with citations 1299 times.

**Research Path Analysis**

Next, the author carried out research mapping based on keywords. Keyword trends in the research "Conventional and Islamic Money Demand". The keywords used must be those that are most frequently used in journal articles in that field. The mapping results are represented in the following image:

![Keywords Network](image)

**Figure 2. Keywords Network**

The keywords that most frequently appear in publications in the field of "Demand Function for Conventional and Islamic Money" include money, system, model, approach, impact, and cost.

**Table 2: Research cluster**

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1 (28 items)</td>
<td>Analysis, approach, author, change, china, country, data, economy, effect, evidence, framework, income, increase, India, inflation, interest rate, literature, model, monetary policy, money, money demand, money supply, paper, period, relationship, role, study, test</td>
</tr>
</tbody>
</table>
Central banks must be aware that monetary contractions may have an impact on unemployment and the growth of Islamic banks (Aysan & Ozturk, 2018).

Boukhatem and Moussa, 2018 shows how Islamic finance and economic growth are related and statistically evaluates the impact of Islamic banking loans on the economic growth of 13 MENA countries between 2000 and 2014. These results demonstrate a favorable correlation between economic growth and the expansion of Islamic finance, as measured by loans provided by Islamic banks. When examining the impact of institutional quality on the relationship between Islamic finance and economic growth, it is common knowledge that nations with sound macroeconomic and institutional policies—including low inflation, prudent public spending, better education policies, a sound regulatory system, and high institutional quality—have higher GDP growth rates than other nations. When examining the impact of institutional quality on the relationship between Islamic finance and economic growth, it is common knowledge that nations with sound macroeconomic and institutional policies—including low inflation, prudent public spending, better education policies, a sound regulatory system, and high institutional quality—have higher GDP growth rates than other nations.

This research shows that there is a significant contribution to understanding how Islamic banking activities translate into economic growth, thereby highlighting a number of implications for economic policy. However, the empirical results that have been obtained are further improved by considering other variables that measure the depth of Islamic banking activities, as well as the size of Islamic financial intermediaries (Boukhatem & Ben Moussa, 2018).

Ibrahim and Alam, in 2018, state that the positive contribution of Islamic finance to financial inclusion, financial stability, or even better economic development. Currently, Islamic finance is still plagued by its problems, including a lack of standardization and harmonization, a lack of human resources and expertise, and an inadequate framework to address the risks unique to Islamic finance. These issues add to the need for

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (28)</td>
<td>Addition, application, benefit, bridge, consumer, cost, day, development, efficiency, energy, importance, information, need, number, order, performance, research, resource, source, system, technology, time, transaction, type, use, user, vehicle, year</td>
</tr>
<tr>
<td>3 (18)</td>
<td>Ability, article, case, chapter, example, fact, form, impact, issue, nature, organization, question, service, theory, view, way, work, world</td>
</tr>
<tr>
<td>4 (17)</td>
<td>Act, bank, central bank, concept, control, government, interest, Islamic bank, knowledge, law, part, person, policy, power, problem, process, state</td>
</tr>
<tr>
<td>5 (9)</td>
<td>Factor, investment, market, price, product, production, stability, supply, value</td>
</tr>
</tbody>
</table>

The research path was created based on the mapping of the five clusters. These include the following:

**Cluster 1: Economic Policy Framework and Financial Analysis**

Themes discussed in cluster 1 are the correlation of the economic policy framework with financial analysis. There have been many studies discussing this theme. Research that is relevant to this topic includes Zulkhibri discusses the impact of macroprudential policies related to financial stability and risk-taking in Islamic and conventional financial systems.

The macroprudential policy has received attention among regulators and academics in the field of Islamic economics and finance, especially after the financial crisis. Policies in Islamic financial institutions can be divided into two main streams: (1) financial stability and systemic risk and (2) risk-taking behavior. The literature also provides support for the use of macroprudential policies to maintain financial stability and mitigate systemic risks in the Islamic financial system (Zulkhibri, 2019).

Aysan et al., 2018 state that the reasons for Islamic bank lending channels are different compared to conventional banks. The major finding is that deposits and loans from Islamic banks are much more sensitive to changes of policies interest rates, showing the significance of the balance sheet channel that these banks serve as a conduit for monetary policy transmission. The main causes of the crucial response to Sharia deposits are risk aversion on the part of Sharia depositors and inertia in Sharia banks' interest rates. Religion is typically linked to higher risk aversion, which could result in larger withdrawals from savings in the event of a positive monetary shock.

One of the main causes for the greater responsiveness of credit at Islamic banks to changes in policy interest rates is the inclination of Islamic banks to finance SMEs. It demonstrates that small conventional banks and Islamic banks with close ties to SMEs are more efficient at transmitting money. Islamic SMEs and banks react to monetary and macroeconomic shocks more quickly. Islamic banks are more responsive to monetary and macroeconomic shocks, and so are SMEs.
Cluster 2: Real Sector Activities

Much research has been conducted discussing innovative economic ecosystems. One of them is research conducted by Shane in 2009, which states that economic growth and job creation from entrepreneurs is not a numbers game. It aims to encourage the formation of high-quality and high-growth companies. Policymakers should stop subsidizing the creation of startups and focus on business groups that have growth potential. While government officials cannot "pick winners," they can identify startups that have a low probability of creating jobs and increasing economic growth.

The relationship between ecosystems and other existing literature, such as clusters and regional innovation systems, was stated by Spiegel and Harrison in 2018. A better framework for comprehending the function of ecosystems in fostering the emergence of new ventures is provided by a process-based perspective of ecosystems. This framework is used to describe how entrepreneurial ecosystems have changed over time and to develop a typology of various ecosystem structures that can promote resilient economic growth in the face of shocks and crises. The significance of entrepreneurial resources, such as expertise in how to launch and expand a business, seed funding, mentorship programs, and workers employed in a startup setting, is demonstrated by entrepreneurial ecosystems (Spigel & Harrison, 2018).

Wennekers et al., in 2005, explained that the level of nascent entrepreneurship is regulated to a certain extent by laws relating to the level of economic development. For most developed countries, improving the incentive structure for business startups and encouraging the commercial exploitation of scientific discoveries offers the most promising approach to public policy. However, developing countries may be better off exploiting economies of scale, encouraging foreign direct investment, and encouraging management education. It is also the reason why economic growth and resilience between developed and developing countries tend to be different (Wennekers et al., 2005).

Autio et al., in 2018, stated that entrepreneurial ecosystems are emerging by illustrating how they represent a new type of cluster. Entrepreneurial ecosystems differ from traditional groups in their emphasis on exploiting the digital capabilities of their organizations around the discovery and pursuit of entrepreneurial opportunities, with their emphasis on business model innovation through voluntary horizontal knowledge dissemination and based on cluster-external locus of entrepreneurial opportunities. These distinctive characteristics distinguish entrepreneurial ecosystems from the regional cluster phenomena discussed in the accepted economic geography and innovation literature (Autio et al., 2018).

Cluster 3: Economic Research Matrix

Much research has been carried out on economics, but what will be discussed in this section is research related to macroeconomics. Buckley and Ghauri, in 2004, examine globalization in relation to the conflict between markets and economic management. This research shows that differences in the pace of globalization between markets present a number of challenges for policymakers in local, national, and regional governments, as well as in international institutions. Increasingly sophisticated decision-making by managers in multinational corporations has narrowed the firm's activities, and finding the optimal location for each closely defined activity has deepened the international division of labor.

Ownership strategies are also evolving and complex, leading to a control matrix that operates from wholly owned units through FDI through market relationships such as subcontracting, including joint ventures as subsequent decision-making options in a dynamic pattern. The globalization of production and consumption is a political challenge, and reactions to these changes have raised questions about the impact of global capitalism and its moral foundations (Buckley & Ghauri, 2004).

Pedauga et al., in 2022 stated the importance of small and medium enterprises (SMEs) and large companies continuously being researched. This paper presents a fundamental social and financial accounting matrix capable of distinguishing direct and indirect impacts transferred from micro, small, medium, and large companies to the entire economy. The study used the hypothetical extraction method (HEM) to explore the range of reactions associated with shocks arising from the COVID-19 lockdown.

Using a structural model for the Spanish economy, we identify the role of different firm size categories in aggregate gross domestic product (GDP). The results obtained are that SMEs and large companies are equally important in supporting economic activities. Specifically, SMEs help explain 43% of income and two-thirds of the decline in unemployment caused by the COVID-19 pandemic (Pedauga et al., 2022).

Bouakez, the year 2009 presents a dynamic stochastic general equilibrium model of rigid prices with heterogeneous production sectors. Firms in various sectors vary in terms of price stickiness, production technology, and the combination of material inputs and investment. Specifically, companies purchase inputs from all sectors using input-output actual. By using matrices and tables of capital flows for the US economy and relaxing the standard assumption of symmetry, this model allows for unique sectoral dynamics in response to monetary policy shocks (Bouakez et al., 2009).
Cluster 4: Financial Governance in a Dual Banking System

Unlike previous attempts, financial governance in a dual banking system had not been studied further by researchers around the world. According to Aysan dan Ozturk in 2018, similar to conventional banks, Islamic banks in Turkey show procyclical lending patterns. Islamic bank loans do not show significant differences from conventional bank loans. These results conflict with several loans that indicate Islamic banks as natural stabilizers in the banking system. The level of competition drives the procyclicality of bank loans to the same extent, confirming the convergence between Islamic and conventional banks in their lending (Aysan et al., 2018).

Elamer et al. in 2020 state the relationship between religious governance, in particular Islamic Governance Quality (IGQ), National Governance Quality (NGQ), and risk management and disclosure practices (RDPs), and consequently ascertain whether NGQ has a moderating influence on the IGQ-RDPs relationship. Using one of the most extensive data sets relating to Islamic banks from 10 Middle East and North Africa (MENA) countries from 2006 to 2013, there were three findings. First, RDP is higher in banks with higher IGQ. Second, RDP is higher at banks in countries with higher RDP NGQ. Third, NGQ has a moderating effect on the IGQ-RDP relationship. It shows that alternative RDP measurement and estimation techniques. These results imply that the quality of disclosure depends on the nature of macro-social factors, such as religion, which remain largely unexplored in business and society research (Elamer et al., 2020).

Lujja et al., in 2016, examines the extent of Malaysia’s best practices to overcome regulatory challenges in introducing Islamic Banking. Malaysia’s experience and best practices in Islamic Banking regulations need to be used as a reference by regulators. Relevant laws requiring some changes include sections 37(a) and 38(1) of the Financial Institutions Act 2004 and section 29(3)(a) of the Bank of Uganda Act 2000. Likewise, tax laws need to be changed to ensure equality in Islamic and conventional financial products (Lujja et al., 2016).

Study Leaves et al. in 2023 presents a new taxonomy of Islamic Financial Systems by considering banking regulations as a driver for a more detailed classification and definition of dual financial systems. This research shows that there are differences in financial system structures that are influenced by socio-cultural biases due to differences in the characteristics of various countries and global financial systems. The risk of regulatory arbitrage or excessive regulatory phenomena is relatively high, thereby hindering growth and equal competition for some systematic financial systems (Delle Foglie et al., 2023).

Cluster 5: Money Market

Many researchers have widely published market-related economic research. One of them is research by Ahmed in 2010, which states that a new business model for the banking system based on non-interest transactions but sharing profits and losses must be applied to the financial system. Financial institutions must encourage business and trade activities that generate fair and legitimate profits. In Islamic finance, there is always a close relationship between financial flows and productivity. The intrinsic properties of Islamic finance contribute to protecting it from potential risks due to excess leverage and speculative financial activities that are part of the root causes of the current financial crisis. These findings also support that the non-interest system and the concept of money in Islam are more resistant to economic shocks (Ahmed, 2010).

Ajmi et al. in 2014 examined the relationship between global Islamic and conventional stock markets, as well as between Islamic stock markets and several global economic and financial shocks. Through this research, evidence was found of significant linear and nonlinear causality between the Islamic and conventional stock markets, but stronger between the Islamic stock market and other stock markets. In addition, this research also shows a solid cause-and-effect relationship between the Islamic stock market and financial and risk factors. This evidence leads to the rejection of the hypothesis of separation of Islamic markets from conventional markets, thereby reducing the portfolio benefits of diversification with Sharia-based markets. The striking results show a relationship between the Islamic stock market and interest rates and interest-bearing securities, which is not in line with Sharia rules. The research results also show that Sharia stock market modeling should be carried out in a nonlinear VAR system and not through regression equations (Ajmi et al., 2014).

Hasan and Dridi’s research in 2011 studied the performance of Sharia banks or Islamic Bank (IB) and conventional banks or conventional Bank (CB) during the recent global crisis by examining the impact of the crisis on profitability, credit and asset growth, and external ratings in a group of countries where both types of banks are located. IB is impacted differently than CB. Factors related to the IB business model helped limit the adverse impact on profitability in 2008, while weaknesses in risk management practices at some IBs led to a more significant decline in profitability in 2009 compared to CBs. IB credit and asset growth performed better than Bank credit and asset growth in 2008–2009, thus contributing to financial and economic stability. Reassessments carried out by external rating agencies of IB risks are generally more favorable (Hasan & Dridi, 2011).

Godlewski et al. 2013 examine whether stock market investors react differently to announcements of sukuk and conventional bond issuance. The stock market was neutral towards the announcement of...
conventional bond issuance but reacted negatively to the announcement of Sukuk issuance. It is attributed to the high demand for sharia investment certificates and an adverse selection mechanism that favors sukuk issuance by low-quality debtor companies (Godlewski et al., 2013).

Managerial Implications

Based on bibliometric results in published literature, research on the theme of Islamic and Conventional Money Demand still needs to be debated. The lack of widespread research on this matter is partly due to the need for more awareness in several countries or communities regarding Islamic finance. Apart from that, Islamic finance also pays attention to Islamic ethics and law, causing theoretical complexity. It may result in reduced interest in research in this area (Mojahedi Moakhar et al., 2023).

There is a need to expand the research sector related to the determinants of people's financial behavior. Researchers need to include other factors such as moral factors, ethics, commitment to religion, and other factors in research on money request behavior (Arshed & Kalim, 2021). It is interesting to investigate how financial technology influences the money demand in both Islamic and conventional financial systems. Technological developments such as blockchain and fintech need to be examined for their interaction with the demand for money (Abdullah, 2016).

<table>
<thead>
<tr>
<th>Gaps</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islamic Money Demand</td>
<td>(Mojahedi Moakhar et al., 2023)</td>
</tr>
<tr>
<td>Determinant of Money Demand</td>
<td>(Arshed &amp; Kalim, 2021)</td>
</tr>
<tr>
<td>Fintech for Money Demand</td>
<td>(Abdullah, 2016)</td>
</tr>
</tbody>
</table>

CONCLUSION

This research aims to determine the development of research regarding "Islamic and Conventional Money Demand" in the world. Findings from the research show that 391 journal articles have been indexed by Scopus. Based on the results of bibliometric mapping, the author who published the most articles on "Islamic and Conventional Money Demand" is Copeland C.

After carrying out bibliometric mapping, the author then carried out keyword mapping in research on "Islamic and Conventional Money Demand". There are 5 clusters with the words most used being money, model, and inflation. Based on frequently used keywords and terms, five topics emerged, namely Economic Policy Framework and Financial Analysis, Innovative Economic Ecosystem, Economic Research Matrix, Financial Governance in a Dual Banking System, and Money Markets. For future studies, to make bibliometric studies more comprehensive, next research can use R-biblioshiny (Maulida & Ali, 2023; Nuraini & Jazil, 2023; Rusydianna & Ali, 2022; Puspita, 2022).

REFERENCES


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