

Islamic Bank Productivity: Analysis of Research Path

Fatimah Iskandar Putri¹

¹IPB University

This study aims to see the development of research Islamic Bank Productivity around the world published by journals with that theme. This study used a qualitative method with a bibliometric analysis approach. The data used is secondary data with the theme Islamic Bank Productivity derived from the Scopus database for 2005-2022. Then, the data was processed and analyzed using the VosViewer application with the aim of knowing the research development bibliometric map Islamic Bank Productivity in this world. The results of the study found that the authors, organizations, and countries with the most publications were dominated by Malaysia. Next, Islamic Bank Productivity based on the bibliometric keyword mapping, there are 4 clusters which are research lines in the existing literature, namely the determinants of Islamic bank productivity, the effect of capital on Islamic bank productivity, the effect of macroeconomic variables on Islamic bank productivity, and the effect of interest rates on Islamic bank productivity.

Keywords: Islamic Bank Productivity; Research Path; Scopus Database

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*Correspondence:

Fatimah Iskandar Putri
fatimahiskandar@apps.ipb.ac.id

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INTRODUCTION

The financial sector has an important role in real economic growth, both on a national and global scale (Abduh & Chowdhury, 2012; Grassa & Gazdar, 2014; Masrizal et al., 2022). In this case, the banking industry as part of the financial sector is certainly inseparable from its strategic role in the economy (Thalib, 2016). From a macroeconomic point of view, banking is a tool for setting monetary policy, and on a micro level through the intermediary function, especially in lending, banks are the main source of financing for both individuals and companies (Siringoringo, 2007). Along with the development of the Islamic economy and the halal industry in various parts of the world, many countries have adopted sharia institutions and instruments (Hassan, 2005). According to Sufian & Haron's (2008) research, Islamic banks currently exist in all parts of the world and are seen as a viable alternative system to traditional banking, and have a lot to offer. Although originally developed to meet the needs of Muslims, Islamic banking has now gained universal acceptance (Sufian & Haron, 2008). In addition, people have begun to realize the existence of Islamic banking and Islamic banking is indeed able to show the community its resilience in facing the ongoing global financial crisis (Antonio et al., 2012).

The presence of Islamic banks in the midst of conventional banking is expected to be able to anticipate the challenges of an increasingly complex and advanced financial system, especially in Islamic finance and to prepare infrastructure to enter the era of globalization (Putri & Dharma, 2016). This is because the existence and development of the Islamic banking industry is one of the main indicators of the economic development of Islamic finance (Rusydziana, 2018). The development and resilience of Islamic finance, especially Islamic banking in facing crises, can be seen from the data disclosed by the State of the Global Islamic Economy Report 2022 that the Islamic financial sector recovered strongly in the first half of 2021 after a tough year during the peak of the pandemic. In addition, the profitability of the Islamic banking sector has improved. Even though the development of Islamic finance is increasing, there are still a number of challenges that must be faced, especially during the pandemic which has become a turning point for the Islamic banking industry.

The Covid-19 pandemic, which began to spread massively at the end of 2019, was able to have a significant impact not only on the social or health sectors, but also penetrated the financial sector,

especially the banking industry (Nicola et al., 2020; Diana et al., 2021). This of course has a worrying influence on the sustainability of the banking industry which also results in instability in the financial sector and the economy (Ningsih and Mahfudz, 2020; Sholihah, 2021). In several studies it is stated that the efficiency of Islamic banks is not fully optimal (Tyas & Rusydiana, 2021). Rodoni et al (2017) stated that the Islamic banking industry tends to be less efficient, this is shown by the average data for the last five years which have not been able to achieve a 100% efficiency level. Gheeraert & Weill, (2015) concluded that there is an insignificant relationship when productivity is measured from the efficiency relationship with the development of Islamic banking. Then, Bahrini (2015) found that banks in the GCC experienced a decrease in productivity during the study period due to scale inefficiencies and a decrease in technical variables.

Banking performance measurement is very necessary and one of the performance assessments in Islamic banking is productivity (Putri & Sukmaningrum, 2020). Productivity refers to the most efficient use of business resources to achieve goals effectively and efficiently within the agreed value framework. The discussion of productivity in a particular business requires the efficient utilization and integration of available resources. This stage is very important for the growth and development of the company as well as the internalization of various improvements to the subsystems. Usually productivity is measured using Total Factor Productivity (TFP) without distinguishing production factors partially. TFP is very important because it is a productivity measure that incorporates all the important aspects of production.

Given the importance of performance appraisal, especially on the productivity of Islamic banks properly and the growing development of the Islamic economic industry, it is important to have further research to see how far the issue of productivity of Islamic banks has developed. In this case it can be measured using bibliometric analysis. Bibliometric analysis can solve crucial problems in scientific publications, such as how to measure the distribution of articles, article authors, organizations or institutions that publish articles, and keywords along with their development trends which are discussed according to the research theme raised.

Therefore, the purpose of this research is to conduct a thorough literature review by identifying gaps in research and assisting academics and practitioners to further explore research on the

productivity of Islamic banks in the future. In addition, there is a dearth of literature on banking productivity in developing countries which strengthens the reason for conducting this research. Furthermore, as far as the author's observation, there has been no research related to this.

PREVIOUS STUDIES

The practice of Islamic banking arises from the principles of sharia which are in line with certain ideological guidelines, namely Islamic finance. The Islamic banking paradigm was first developed based on rewards and risk sharing (ie equity based) with the aim of promoting social welfare (Hassan & Aliyu, 2018). Furthermore, Hassan & Aliyu (2018) also explained that in principle, Islamic banking and financial institutions are based on Sharia guidelines which abolish interest and other prohibited activities related to transactions such as gambling, speculation, excessive uncertainty (gharar), and illegitimate transactions. related to pornography, tobacco, short-selling, alcohol, and other activities deemed detrimental to society. Aliyu et al (2017) stated that Islamic banks are expected to have long-term institutional resilience and prosperity that will improve social and environmental welfare.

The main function of banking is financial intermediation, namely the process of purchasing surplus funds from the business sector, government and households, to be channeled to economic units that are in deficit (Siringoringo, 2018). Furthermore, the fundamental difference between the system in Islamic banks and conventional banks lies in the return and distribution of profits provided from banks to customers and vice versa, namely the term interest in conventional banks and profit sharing in Islamic banks (Putri & Dharma, 2016). The main characteristic of Islamic banks is the absence of interest or what is better known as usury in the Islamic economy, where usury itself is prohibited. These characteristics make Islamic banking superior in several ways including the operational system that is run. This can be seen from the resilience of Islamic banks in facing the ongoing global financial crisis (Antonio et al., 2012) or from the Covid-19 pandemic crisis.

Productivity can be used as a measurement tool for assessing the performance of a business entity. Productivity is a strategy for a person or organization to create goods and services with optimally owned resources (Putri et al., 2020). Roghanian et al (2012) explain the importance of measuring productivity to analyze, monitor and supervise performance in

continuous improvement and successful management and helps companies to follow the mission, vision, policies, goals and objectives and allows to identify weaknesses and strengths as well as opportunities and threats growing from the market.

Efficiency and productivity can be seen in financing and operations as outputs and inputs which include fixed assets, labor and customer funds. Efficiency can be known by calculating the ratio of output and input, while productivity is the relationship between output and input (Mongid & Tahir, 2010). Furthermore, Rusydiana (2018) explains the concept of productivity, namely the relationship between output and input in a production process. Productivity measurement can be done partially or totally. Partial productivity is the relationship between output and one input. While total productivity or better known as Total Factor Productivity (TFP), measures the relationship between output and several inputs together. This relationship is expressed in the ratio of the output index to the aggregate input index. Fare et al (1994) explain that productivity can be broken down into smaller segments based on changes in efficiency through innovative technological advances, assuming that inputs equal outputs, and the growth index of total factor productivity captures technological changes.

As far as the author's observation, empirical studies related to productivity in Islamic banks are still quite limited. Among the studies related to Islamic bank productivity include Rodoni et al (2017) analyzing efficiency and productivity comparisons in Islamic banks in Indonesia, Malaysia and Pakistan. Kamarudin et al (2017) analyzed the productivity development of Islamic banks. Abbas et al (2015) studied efficiency and productivity in Islamic banking. Alexakis et al (2019) measure the performance and productivity of Islamic and conventional banks. Nugrohowati et al (2020) examines changes in technology and productivity in the Islamic banking industry. And Abedifar's research examines the latest empirical literature and directions for future research on Islamic banking and finance.

Due to the fact that there is still a research vacuum related to the empirical literature on Islamic bank productivity, this research specifically aims to fill the void in previous research and see future research directions.

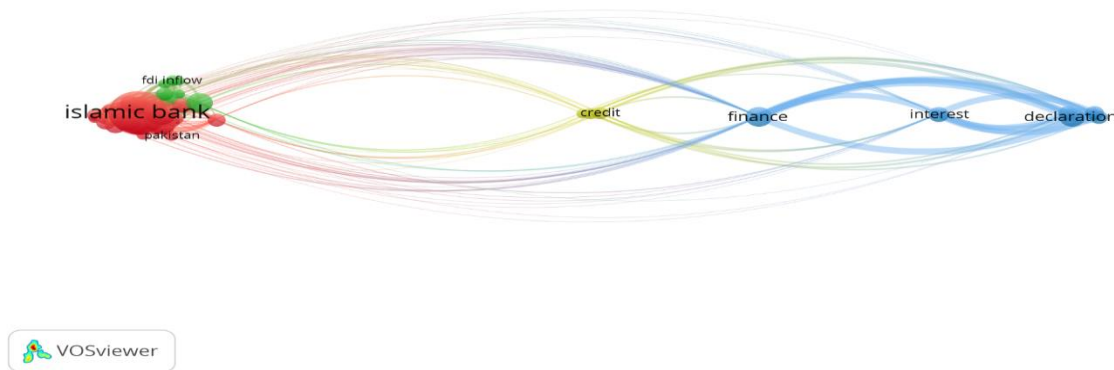
RESEARCH METHOD

This study used a combination of quantitative and qualitative methods. The method used in this study was adopted from Kumar et al., (2020) who used

bibliometric analysis and literature studies simultaneously. The use of quantitative methods is contained in the bibliometric analysis carried out with the VOS Viewer software. While qualitative methods are used in the analysis of the literature found. The data used in this study is secondary data obtained from Scopus for the period 2005-2022. Data was obtained through the keyword "productivity Islamic banks" with

search results containing 85 relevant documents accessed on November 26, 2022. Several studies using the bibliometric method in the area of Islamic economics and finance, for example, were conducted by [Marlina et al., \(2021\)](#), [Srisusilawati et al., \(2021\)](#), [Rusydia et al., \(2021\)](#), [Taqi et al., \(2021\)](#), and also [Antonio et al., \(2020\)](#).

ANALYSIS



Research Path 1: Determinants of productivity of Islamic banks

Table 1: Research path based on VOS Viewer software output

Cluster	Words Extraction	Sub-themes
1-Red (39 Item)	Bahrain, Bank Performance, Banking Industry, Banking Sector, Commercial Bank, Conventional Bank, Data Envelopment Analysis, Determinant, Domestic Islamic Bank, Empirical Evidence, Empirical Finding, Factor, Foreign Bank, Global Financial Crisis, Indonesia, Influence, Iran, Islamic, Islamic Bank, Islamic Banking Industry, Islamic Banking Sector, Liquidity, Malmquist Index, MPI, Pakistan, Productivity Change, Profitability, Qatar, Quality, Research Limitations Implications, Revenue Efficiency, Sample, Scale, Service, Technology, UAE	Determinants of Islamic bank productivity
2-Blue (7 Item)	Bank Deposit, Bank Loan, Economy, Evidence, FDI Inflow, Investment, Loan	Islamic bank capital and productivity
3-Green (6 Item)	Declaration, Economics, Finance, Interest, Interest Statement, Quarterly Review	Macroeconomics and productivity of Islamic banks
4-Yellow (3 Item)	Credit, Money, Money Interest Rate	Interest rates and productivity of Islamic banks

Cluster 1 is related to the variables that determine Islamic banks and influence them. A study conducted by (Jubilee et al., 2020) found that bank identity or bank model did not have a significant effect on bank productivity, although the results showed higher productivity of Islamic banks. Meanwhile, research by Bahrini (2015) found that banks in the GCC experienced a decrease in productivity during the study period due to scale inefficiencies and a decrease in technical variables. In addition, it was found that bank-specific factors and a decrease in the total productivity index on a global scale. Further research by Wahyudi & Sakti (2016) stated that the financing model with a profit sharing scheme would increase the productivity and competitiveness of Islamic banks in Indonesia.

Referring to the research that has been done, it can be concluded that the variables that affect the productivity of Islamic banks include internal variables starting from bank-specific factors, financing models, competitiveness, to the efficiency of the bank itself.

This research path discusses also the comparison between Islamic and conventional bank productivity. Several studies related to this, for example, were carried out by Rani et al., (2017), and Rusydiana et al., (2019).

Research path 2 discuss on Capital and productivity of Islamic banks. Cluster 2 discusses the link between capital and productivity of Islamic banks. Capital, liquidity and the determinants of the world financial crisis significantly affect the level of productivity of Islamic banks (Kamarudin et al., 2017). Furthermore, Saif-Alyousfi (2021) in his study explains that inflows of FDI directly affect bank loans through increased liquidity related to FDI, business activity or excessive competition in the banking market because they are not channeled through macro variables. The rest of the loans from conventional banks are more affected by FDI than Islamic banks. A study by Ur Rehman et al., (2022) examined the effect of the efficiency of intelligence capital on the productivity of Islamic banks, finding that intelligence capital of Islamic banks is a competitive advantage for banks and increases bank productivity.

Based on existing studies, it can be concluded that capital has an important influence on the productivity of Islamic banks. The capital needed by Islamic banks is not only capital in the form of funds

but also intelligence capital which has a significant influence on the productivity of Islamic banks.

Research path 3. Macroeconomics and productivity of Islamic banks

Cluster 3 talks about the relationship between macroeconomic conditions and the productivity of Islamic banks. Kamarudin et al., (2022) in his research found that bank size, credit risk, market power, management efficiency and inflation affect the productivity of Islamic banks. Research by W Jubilee et al., (2022) concluded that macroeconomic variables and globalization have a significant influence on the productivity of Islamic banks. A study conducted by Faizulayev et al., (2021) found that the macroeconomic variables in the form of market power in objects during the fixed research period with additional capital adequacy could not explain the market power of Islamic banks. In addition, corruption has no effect on the competitiveness of Islamic banks.

From the results of research that has been done before, macroeconomic variables, especially market forces significantly affect the productivity of Islamic banks. Other macro variables that also affect the productivity of Islamic banks include inflation, to globalization.

Research path 4. Interest rates and productivity of Islamic banks

Cluster 4 discusses the relationship between interest rates and the productivity of Islamic banks. Gheeraert & Weill, (2015) concluded that there is an insignificant relationship when productivity is measured from the efficiency relationship with the development of Islamic banking. Bidabad & Sherafati, (2017) states that the allocation of financial resources such as credit, loans, or other financial facilities will reduce productivity when done extravagantly. Mojahedi Moakhar et al., (2022) stated that lending rates cause changes in price levels and inefficiencies, one of which is in the general balance, so interest rates must be zero to ensure productivity.

Based on the results of the research that has been mentioned, it can be concluded that interest rates do not significantly affect the productivity of Islamic banks with one of the causes, namely not applying interest rates to Islamic bank financing, so that interest rates are zero.

Table 2: Summary of VOS Viewer Analysis Results

No	Keywords	Author	Organization	Organization
1.	Islamic Bank	Fadzlan Sufian	Country	Country
2.	Analysis	Fakarudin Kamarudin	International Islamic University Malaysia	International Islamic University Malaysia
3.	Conventional Bank	Razali Haron	Malaysia	Malaysia
4.	Period	Mariani Abdul-Majid	Putra Malaysia University	Putra Malaysia University
5.	Author	M. Kabir Hassan	Indonesia	Indonesia
6.	Islamic	Nazratul Aina Mohamad Anwar	Taylor's University Malaysia	Taylor's University Malaysia
7.	Finance	Giuliana Battisti	Saudi Arabia	Saudi Arabia
8.	Economy	David S. Saal	National University of Malaysia	National University of Malaysia
9.	Productivity Change	Ejaz Aslam	United States	United States
10.	Declaration	Amin Jan	University Of Nottingham	University Of Nottingham

To find out the topics that are often discussed in most studies related to the productivity of Islamic banks, co-occurrences/co-word analysis was carried out. This analysis displays the most frequently appearing and interconnected keywords in the title and abstract. The three words that appear most frequently in Islamic bank productivity articles include Islamic banking, analysis, and conventional banking. Most of the articles that appear in the search discuss the comparison of the productivity of Islamic banks and conventional banks using various methods.

In the analysis of the literature related to the productivity of Islamic banks, it is also known that the author has the most number of publications. These writers include Fadzlan Sufian, Fakarudin Kamaruddin, and Razali Haron. Fadzlan Sufian is an academic from the MARA University of Technology, Malaysia. Most of Sufian's research discusses the factors that influence the productivity of Islamic banks and their comparison with conventional banks. Furthermore, Fakarudin Kamaruddin is also an academic from the State of Malaysia, namely Universiti Putra Malaysia. The study by Kamaruddin mostly analyzes the productivity of Islamic banks in various countries and regions of the country. Some of them are collaborations with the previous author, Fadzlan Sufian. The next writer is Razali Haron, from the International Islamic University Malaysia (IIUM). Haron's research is dominated by the influence of bank internal factors on the efficiency and performance of Islamic banks.

Furthermore, there is an analysis related to the organization with the most research on the productivity of Islamic banks. In first place is the International Islamic University Malaysia (IIUM) with an analysis of the factors that influence the productivity and efficiency of Islamic banks in various countries from Malaysia, Indonesia, to Qatar. Next is Universiti Putra Malaysia with the dominance of the topic analyzed on the productivity of Islamic banks which is influenced by various internal and external factors originating from regulations in various countries and regional countries. Taylor's University Malaysia is in third place with most of the studies related to the comparison of the productivity of Islamic and conventional banks with factors that influence them, both internal and external. In the emerging studies, the three universities are related to each other in the same article. Apart from these three universities, there are four other universities which are among the most published article publishers. While the rest came from the University of Nottingham, University of New Orleans, and the University of Indonesia.

The next analysis is related to countries with the most research publications related to the productivity of Islamic banks. The three countries with the most publications are Malaysia, Indonesia, and Saudi Arabia. Malaysia is in first place with the topic of discussion in the form of factors that determine the productivity of Islamic banks in Malaysia and other countries as well as comparisons with conditions in conventional banks. The number of publications originating from Malaysia

is supported by the existence of authors who occupy the position of authors and universities with the most publications. Furthermore, Indonesia with a diversity of studies related to the productivity of Islamic banks starting from comparisons of the productivity of Islamic and conventional banks, comparisons with other countries, as well as comparisons in the social and financial sectors of banks. Saudi Arabia has a different research tendency compared to Malaysia and Indonesia, namely most of the research discusses the effect of investment, especially investment by foreign countries on the productivity of Islamic banks.

CONCLUSION

The productivity of Islamic banks is a topic that still needs further research, seeing that the number of published articles on this topic has not reached 100 articles. There are 4 clusters that become research lines in the existing literature, namely the determinants of Islamic bank productivity, the effect of capital on Islamic bank productivity, the effect of macroeconomic variables on Islamic bank productivity, and the effect of interest rates on Islamic bank productivity. Most of these articles discuss factors that have an influence on the productivity of Islamic banks and their comparison with conventional banks. This can also be seen from Islamic banks and conventional banks being the results of the keywords that appear most often. Furthermore, the authors, organizations, and countries with the most publications are dominated by Malaysia. As many as three writers with top positions are academics from Malaysia and come from well-known universities in Malaysia. Likewise, the organizations with the most publications are universities in Malaysia.

So that from the results obtained, it can be stated that topic specifications can be discussed in future research on the productivity of Islamic banks, including productivity measurement using a variety of different methods. Measurement of the effect of implementing sustainable activities on productivity also needs to be seen to determine the best strategy that can be taken by the Islamic banking sector.

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