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COMPARATIVE ANALYSIS OF THE EFFICIENCY OF ISLAMIC AND CONVENTIONAL BANKING SYSTEMS: A LITERATURE REVIEW

ANALISIS KOMPARATIF EFISIENSI SISTEM PERBANKAN SYARIAH DAN KONVENSIONAL SEBUAH TINJAUAN LITERATUR

Anton Priyo Nugroho
Universitas Islam Indonesia Yogyakarta
Priyo.nugroho@uii.ac.id

ABSTRACT

The article aims to conduct an Efficiency Comparison between Islamic and Conventional Banking Systems by synthesizing a literature review within the realm of Financial Management. Employing a literature study methodology, the author meticulously examines prior research findings to construct a robust conceptual framework. This approach comprehensively outlines the pertinent theoretical landscape, elucidates recent advancements, and establishes a robust foundation for discourse, drawing from contemporary references accessed through Google Scholars and Mendeley citation searches. Through the analysis of previous studies, the article references significant disparities in the efficiency systems of Islamic banks and conventional banks across their distinct features, each presenting unique advantages. This underscores the need for further analysis of components like sharia compliance, capital structure, and social values, which play pivotal roles in enhancing the efficiency of Islamic banking.
***Keywords**: conventional bank, Efficiency, Islamic bank.*

ABSTRAK

Artikel ini bertujuan untuk melakukan Perbandingan Efisiensi antara Sistem Perbankan Syariah dan Konvensional dengan mensintesis tinjauan literatur dalam bidang Manajemen Keuangan. Dengan menggunakan metodologi studi literatur, penulis dengan cermat memeriksa temuan penelitian sebelumnya untuk membangun kerangka kerja konseptual yang kuat. Pendekatan ini secara komprehensif menguraikan lanskap teoretis yang relevan, menjelaskan kemajuan terbaru, dan membangun fondasi yang kuat untuk wacana, yang diambil dari referensi kontemporer yang diakses melalui Google Scholars dan pencarian kutipan Mendeley. Melalui analisis studi sebelumnya, artikel ini merujuk pada perbedaan yang signifikan dalam sistem efisiensi bank syariah dan bank konvensional di seluruh fitur yang berbeda, masing-masing menyajikan keunggulan yang unik. Hal ini menggarisbawahi perlunya analisis lebih lanjut mengenai komponen-komponen seperti kepatuhan syariah, struktur modal, dan nilai-nilai sosial, yang memainkan peran penting dalam meningkatkan efisiensi perbankan syariah.
Kata Kunci: Bank Konvensional, Efisiensi, Bank Syariah.

INTRODUCTION

The comparative literature also emphasizes the legal aspect: Islamic banking systems are governed by strict Islamic laws, while conventional banking systems are governed by secular laws (Izzeldin et al., 2021). In the contemporary banking world, analyzing how effective Islamic and conventional banking systems are is becoming increasingly important. In contrast, the conventional banking system focuses more on achieving profits and paying interest as an important part of its operations (Safiullah, 2021a). In addition, previous research has also emphasized the impact that such differences can have in monetary and financial terms (Safiullah, 2020). By studying these elements, this comparative efficiency analysis research is expected to provide a deeper understanding of how the two systems handle market dynamics and changing societal values in the contemporary banking era. Islamic banking, which focuses on ethics and morality, has economic and social effects that can affect the relationship between banks and society (Alqahtani et al., 2017).

The evidence suggests that Islamic banking, rooted in Islamic economic

principles, prioritizes fairness in wealth and risk sharing, aligning with its core values. This ethos steers the system away from practices perceived as unjust or disadvantageous, ensuring equitable distribution of profits and risks among involved parties (Chaffai, 2020). Consequently, literature underscores the potential of Islamic banking to foster a fairer and more inclusive society by establishing an equitable framework for wealth distribution. In contrast, research indicates that conventional banking systems tend to exhibit greater flexibility in portfolio diversification and risk management. The comparatively flexible regulations within conventional finance afford banks greater latitude in devising financial strategies aimed at enhancing efficiency (Safiullah, 2021b).

A more in-depth study shows how technology affects how effective Islamic and conventional banking systems are (Fatoni & Sidiq, 2019). Important questions about the extent to which both systems can leverage financial technology (fintech) innovations and digitization of banking services arise. In forthcoming studies, there's potential to delve into optimizing technology for enhanced efficiency, broader banking accessibility, and catering to the evolving needs of modern consumers. This exploration should be mindful of the distinctions between Islamic and conventional banking within the financial sphere.

Stricter regulations or treatment in some jurisdictions may affect the Islamic banking system, depending on how the government handles the Islamic financial sector (Syairozi et al., 2017). This may result in difficulties or opportunities. This study may focus on analyzing government policies that may help or hinder the growth of the banking system. It may also look at the impact of these policies on banking competitiveness and stability. Studies have shown that, especially in terms of comparisons between Islamic and conventional banking, government rules and supervision play an important role in determining how effective the banking system is (Rosyadi, 2017).

The heightened expertise among practitioners in Islamic banking is expected to drive improved operational efficiency while nurturing a deeper understanding of the fundamental values guiding this banking system, rooted in Islamic law. Specialized knowledge encompassing ethical principles and Islamic jurisprudence governing financial transactions becomes crucial within this unique framework (Ferari & Sudarsono, 2017).

This review underscores the pivotal role of human resources and expertise in shaping the efficiency of both Islamic and conventional banking systems. Earlier research highlights the importance of considering micro and macro financial aspects when evaluating their efficiency (Nasution & Husni Kamal, 2021). These studies delve into understanding how global economic shifts, market dynamics, and financial crises impact the performance of these systems. Examining their efficiency amidst market fluctuations and crises offers critical insights into their resilience within the market landscape (Safiullah, 2020).

Studies on inclusive banking efficiency not only consider the internal aspects of Islamic and conventional banking, but also emphasize how international financial institutions and development organizations contribute to the development and efficiency of both systems.

A comprehensive literature review examining the role of international financial institutions in banking efficiency contributes significantly to formulating policy frameworks that

bolster the growth and stability of banking sectors globally. This global perspective study introduces fresh insights into the collaboration and integration between Islamic and conventional banking alongside international financial institutions (Asmild et al., 2019).

Within the discourse on the efficiency of Islamic and conventional banking, the emphasis on financial inclusion and social responsibility emerges as a primary focus. By integrating these facets of financial inclusion and social responsibility, this research not only assesses banking performance solely from a financial standpoint but also considers its broader impact on societal welfare and sustainability. Moreover, the social responsibility embraced by banks constitutes a pivotal aspect of their corporate responsibility.

The meticulous examination of existing literature paves the way for devising an appropriate methodological approach to assess the comparative efficiency between Islamic and conventional banking systems. This research endeavors to establish a groundwork for shaping more robust and sustainable banking policies while fostering the evolution of best practices within both sectors. By assimilating insights from prior research, subsequent studies can delve deeper into understanding the factors influencing the efficiency of these two banking systems.

Given these circumstances, a comprehensive literature review on the Comparative Analysis of the Efficiency of Islamic and Conventional Banking Systems becomes imperative. Such an analysis, sourced from references in Mendeley and Google Scholar, is poised to become a valuable resource in financial management, offering insights and serving as a reference point for industry practitioners and policymakers alike.

Literature Review

Efficiency

Efficiency is defined as a measure of effectiveness that results in minimizing wasted time, effort, and skills (Timothy Scott Archer: 2010). Three types of efficiency are commonly seen from the company's point of view:

1. Technical Efficiency

In the context of banking efficiency, Technical Efficiency refers to the ability of a bank to optimize the use of its technical resources to achieve the best results (Tan & Anchor, 2017). This includes well-organized operations, the use of advanced information technology, and effective human resource management. Banks that have high technological efficiency can provide services to customers at a low cost, utilize technology for process automation, and ensure that the number of employees and desired outcomes are well balanced (Euthimios G. Tsionas & Mamatzakis, 2017). Analytical methods such as Data Envelopment Analysis (DEA) or Stochastic Frontier Analysis (SFA) can be used to measure technical performance. Banks can gain a competitive advantage in a fast-changing market by improving technological efficiency, which will result in a more efficient and innovative banking environment (Efthymios G. Tsionas et al., 2015).

2. Allocative Efficiency

In the context of banking efficiency, Allocative Efficiency refers to the ability of a bank to distribute resources in the most effective way to achieve the most favorable allocation for all parties involved (Efthymios G. Tsionas et al., 2015). This involves making the right decisions about capital

allocation, investment placement, and pricing of products and services. Banks with capital allocation efficiency will be able to identify profitable investment opportunities and allocate their capital efficiently between different sectors of the economy (Mamatzakis et al., 2015).

3. Economic Efficiency

In the context of banking efficiency, "Economic Efficiency" refers to the ability of a bank to manage resources effectively so as to achieve the best results from an economic point of view (Bosetti et al., 2009). Some examples of operational efficiency, smart use of technology, proper resource allocation, and prudent risk management are examples of economic efficiency. Banks that achieve economic effectiveness can not only optimize the production and use of their internal resources, but they can also quickly and effectively adapt to economic and market changes (Boussemart et al., 2019). The ability of banks to provide services to customers at an efficient cost, increase profitability, and compete fairly in financial markets demonstrates the importance of an efficient economy. The use of modern technology, such as digital banking systems, can improve operating efficiency and reduce transaction costs. Good risk management can also mean making smart investment choices.

By achieving economic efficiency, a bank can add maximum value to its shareholders, improve customer welfare, and support overall economic growth. In addition, the long-term sustainability of the company is also in focus, with sustainable resource management and business policies that consider environmental and social impacts (Stauropoulou et al., 2023). Therefore, economic efficiency is not only about efficient internal management, but also involves alignment with prevailing social and environmental values.

According to (Miah & Uddin, 2017), in the production process can be achieved efficiency is divided into two types, namely the efficiency of productive and allocative efficiency. To achieve this productive efficiency, two conditions must be met. Allocative efficiency will be achieved when allocating these resources to various economic/production activities reaches the maximum/optimum level. According to (Alqahtani et al., 2017) states that efficiency is the ratio of output and input interconnected by achieving maximum output with a number of inputs which means the ratio of output If the input is getting bigger, the efficiency is said to increase high, so it can be said that efficiency is the best use of input to produce output.

Cost efficiency

Cost efficiency is a key concept in economic theory that reflects the optimization of the use of resources to achieve certain results (Izzeldin et al., 2021). In the economic framework, cost efficiency refers to the ability of an entity, whether a company, industry, or the economy as a whole, to achieve its goals by using available resources efficiently (Norfitriani, 2016). This concept is fundamental in the context of economic competitiveness, as high cost efficiency can improve productivity, increase profitability and reduce waste.

Cost efficiency is measured through the ratio between input and output (N. Hidayah & Purnomo, 2014). Cost efficiency also contributes to economic growth, as efficient companies can increase their competitiveness in the global market. An entity is considered cost-efficient if it can achieve the desired results using a minimal amount of inputs. In economic theory, cost efficiency is

seen as a way to achieve efficient resource allocation in the economy (Fatoni & Sidiq, 2019). If a sector of the economy can achieve high cost efficiency, then resources will be allocated optimally, thereby improving people's welfare. This creates a dynamic and sustainable economic environment, where people can enjoy higher levels of production and consumption.

In the context of a free market, cost efficiency is a key driver of competition. Companies that can manage their operational costs well will be able to offer products or services at lower prices, win the competition and gain a larger market share (Haris & Hastuti, 2011). Cost efficiency is not just economic efficiency but also considers social and environmental impacts. By reducing resource wastage, cost efficiency can help protect the environment and encourage green business practices. Finally, cost efficiency is also relevant in the context of sustainability.

Banking Efficiency

Bosetti et al. (2009) mention different ways to measure how well banks work, like scale, scope, technical, and location efficiency. Technical efficiency looks at how inputs and outputs are connected during production. On the other hand, banks hit allocative efficiency when they figure out the best output range for making the most profit. An efficient process makes the most out of the given inputs or does a lot with very few inputs.

The intermediation approach actually complements the production approach and explains the banking process as converting money borrowed from depositors into money lent to borrowers. Banks produce deposit accounts and credit loans, according to the production approach, with output measured in terms of interest income: all income earned by banks from lending and deposits at Bank Indonesia; other operating income, such as commissions, provisions, and fees, plus interest income.

According to Nasution & Husni Kamal (2021), the intermediation approach views financial institutions as middlemen, helping move money from places where there's too much to places where there's not enough. They consider inputs like electricity costs, labor payments, capital, and interest on deposits. Outputs are measured by financial investments, loans, and advances. This approach assumes that the main job of financial institutions is to give out loans. It's quite similar to the asset visualization approach, which also assumes that the main role of financial institutions is providing credit loans. In both, output is defined in terms of assets.

Comparison of Islamic Banks and Conventional Banks

Islamic banks and conventional banks both function as financial intermediaries (Miah & Uddin, 2017). (Safiullah, 2020) said that conventional and Islamic banks have technical similarities in terms of money acceptance, transfer mechanisms, use of computer technology, general financing requirements, etc. (Izzeldin et al., 2021) stated that although Islamic banks prohibit usury or any business, conventional banks also do the same to make a profit. According to (Miah & Uddin, 2017), there is a philosophical or doctrinal basis that distinguishes Islamic banks from conventional banks. Some of the main components that are prohibited in Islamic financial institutions include usury, uncertainty (gharar), and gambling (maysir).

(Asmild et al., 2019) explains that Fourth, the sharia supervisory board is an organizational component of Islamic banks. (Izzeldin et al., 2021) state that there are several things that distinguish

the Islamic banking system from conventional banks. They said that there are several aspects that distinguish Islamic banks from conventional banks. The first is the philosophical aspect: Islamic banks do not use interest rates and uncertainty as a basis; conventional banks have a Sharia Supervisory Board. The third is the social aspect, which is emphasized in the vision and mission of Islamic banking.

As a financial intermediary institution, banking plays a significant role in the national economy. (Chaffai, 2020) explains that banking efficiency consists of scale efficiency and coverage efficiency. The bank's capacity to diversify its allocation is a requirement for scope efficiency. According to (Indriyani, 2015), a production process is considered efficient if certain inputs can be used to produce maximum output or with minimal input to produce certain outputs. (Euthimios G. Tsionas & Mamatzakis, 2017) by adding technical efficiency (technical efficiency) and allocation (allocation efficiency) in banking efficiency. In contrast, technical efficiency describes the relationship between inputs and outputs in the production process.

According to (Efthymios G. Tsionas et al., 2015), banking efficiency has two dimensions: the availability of various types of financial instruments for profitable asset owners, which provide the most ideal portfolio for liquidity, risk, and return purposes. As in every situation, economic activities are expected to produce goods and services at the lowest cost and to allocate resources where they are most valuable. On the other hand, banking resources should be allocated in this way to the most valuable placements.

METHOD

This research adopts a qualitative method employing a literature study approach, also known as Library Research. The rationale behind this choice is to facilitate a comprehensive and interpretive analysis, establishing a robust groundwork for comprehending related concepts within the academic literature (Putra, 2021). Such an approach enables researchers to delve into existing theories, facilitating comparative analyses between them (Dermol & Širca, 2018). Specifically, this article conducts a theoretical discussion and analysis based on previous research results pertaining to the Comparative Analysis of the Efficiency of Islamic and Conventional Banking Systems.

All references utilized were sourced from electronic databases like Mendeley and Google Scholar, ensuring the accuracy and originality of the information accessed. The literature chosen for this article was meticulously selected from documented research findings in scientific articles. This meticulous approach aims to uphold the quality and credibility of the literature underpinning the analysis, thereby fortifying the theoretical framework and the resulting findings presented in this scientific article (Li, 2022).

The methodological approach used is in accordance with the type of qualitative research, especially literature research. With an inductive approach, this research can penetrate deeper into the research literature without predetermined boundaries, allowing for organic and detailed discoveries. This methodology ensures the research is more open to ideas and thoughts that emerge from the literature, supporting a more holistic and in-depth analysis of the theories encountered.

RESULT AND DISCUSSION

Comparison of System Efficiency of Islamic Banks and Conventional Banks

1. The research findings by N. Hidayah & Purnomo (2014) highlight distinct efficiency differences between Islamic and conventional banks in Indonesia. Efficiency, a crucial metric assessing banking performance, particularly in banking intermediation, compares input and output values used in operational activities. Variations in input and output variables lead to differing efficiency levels among banks. As these bank types operate on different systems in Indonesia, their utilization of these variables varies, resulting in differing efficiency achievements.
2. In a subsequent study by Fatoni & Sidiq (2019), the Mann-Whitney test revealed that the average intercept value of Islamic banks surpasses that of conventional banks. This higher average Z score for Islamic banks suggests greater stability compared to their conventional counterparts. The comparison of intercept values per bank reiterates this trend, consistently showing higher average intercept values for Islamic banks. Surprisingly, the analysis of panel data regression indicated that the HHI variable, representing banking competition levels, did not significantly influence Islamic banking stability. Despite Islamic banks having considerably lower market shares compared to conventional banks, competition among Islamic banks didn't impact their stability significantly. For instance, in 2016, Islamic banking assets held a market share of 4.96% (Bank Indonesia, 2016).
3. The research conducted by Syairozi, M. I. et al. (2017) examining Islamic banks in Indonesia reveals an overall efficiency increase in Islamic business units from 2013 to 2015, as indicated by the DEA analysis. None of the input or output variables reached a full efficiency score of 100%. Specifically, among the output variables, operating income displayed the highest efficiency level at 97.33%, while financing exhibited the lowest efficiency level, reaching 89.80%.
4. Rosyadi's comparative research (2017) delves into the performance evaluation of Islamic banks in contrast to conventional banks, yielding several noteworthy findings. Firstly, across various financial indicators, Islamic banks consistently outperformed their conventional counterparts, signifying superior technical health. Secondly, the performance of Islamic banks surpassed that of the average conventional bank throughout the observation period, suggesting a relatively better overall performance. Statistical tests conducted revealed variance disparities in the overall efficiency between Islamic and conventional banks, indicating distinct performance patterns. Moreover, the statistical analyses highlighted the non-comparability between the mean overall efficiency of Islamic banks and that of conventional banks, further underlining their differing performance landscapes. Additionally, utilizing the DEA method, the study unveiled that Islamic banks operated with higher efficiency levels compared to conventional banks from 2004 to 2008. These insights shed light on the distinct performance characteristics and efficiency levels between Islamic and conventional banking institutions.
5. Hanifah Rahmi's research (2019) elucidates that only three Islamic banks—Muamalat Bank, Permata Islamic Bank, and CIMB Niaga—

sustained a perfect efficiency level. Utilizing the CRS model, the average Islamic banking sector attained a flawless efficiency rating of 100% during 2007-2009, a feat maintained solely by these three banks. This study emphasizes the robust performance and notably high efficiency levels of Islamic banking during the global crisis, aligning with previous research findings. The increased input and output factors within Islamic banking contributed to its resilient performance during this period. Calculations utilizing the CRS model revealed an average perfect efficiency score of 1,000, signifying the strong overall performance and survival of Islamic banking amidst the global crisis.

6. The study (Novandra, 2012) used Data Envelopment Analysis (DEA) to compare the efficiency level of Islamic and conventional banking using non-parametric method. The study was conducted from 2008 to 2013 using several input output variables. While conventional banks experienced inefficiency in 2009, Islamic banks showed resilience to the global crisis. They achieved efficiency levels of 98.38% and 94.28%, respectively. The results explain that Islamic banks can minimize the effects of the global crisis.
7. The results of (N. Hidayah, 2016) who calculated with DEA method showed that Indonesian banks experienced different inefficiencies from the first quarter of 2012 to the third quarter of 2013. The result of Mann-Whitney difference test shows that Islamic banks have an average efficiency level of 65.17 percent, while conventional banks have an average efficiency level of 197.45 percent. Based on the significance value of Mann-Whitney and the probability value from the Mann-Whitney test, it can be concluded that there is a difference in the level of efficiency between the two groups of banks during the period of quarter 1-2012 to quarter 3-2013. Therefore, it is concluded that there is a difference (0.000<0.05) in the level of efficiency between Islamic banks and conventional banks in Indonesia.
8. Research findings (Ferari & Sudarsono, 2017) show that the efficiency level of Islamic banks varies and changes over time. It is shown that conventional banks are more efficient in intermediation than Islamic banks. Conventional banks are also more efficient than Islamic banks. This analysis can help banks in strategic planning as it can find the source of inefficiency.
9. The estimation result conducted by (Ar Royyan Ramly, 2017) was obtained by using DEA and comparing the efficiency of Islamic and conventional banks by calculating the variables that affect efficiency. However, with a value of 0.0630, the NPF variable has no significant influence, while the efficiency of conventional banks in Indonesia can be concluded by calculating the ROA variable of 0.0001, the NPL variable of 0.0040, the LDR variable of 0.0017, and the CAR variable of 0.0001. Thus, ROA variable has a significant influence on bank efficiency.
10. Study findings (Ferari & Sudarsono, 2017) show that the efficiency level of Islamic banks varies and changes over time. It was found that conventional banks outperformed Islamic banks in terms of intermediation efficiency. In addition, Islamic banks are less efficient than conventional banks. This analysis helps banks in strategic planning as it can identify the causes of inefficiency.

11. The results (Vivin & Wahono, 2017) explain that there are differences in the financial performance of Islamic Commercial Banks and Conventional Islamic Commercial Banks in the aspects of CAR, NPL, LDR, BOPO and ROA. In general, it can be concluded that the financial ratios of Islamic Commercial Banks and Conventional Commercial Banks in the 2013-2016 research period fluctuated.
12. The literature study conducted by Wahyu et al. (2023) reveals four key research topic areas in the comparison between Bank Bukopin Syariah and Conventional banks: (1) financial performance; (2) employee performance; (3) behavioral customer loyalty; and (4) additional issues. The significance and contribution of this research lie in mapping out these research topics previously explored by scholars concerning Bank Bukopin Syariah and Conventional banks, identifying which areas have been frequently or infrequently studied. This mapping serves to illuminate the research gaps within this domain, offering insights for other researchers to discern and potentially address these unexplored areas.
13. As per Hidayah (2014), the DEA calculation results highlighted three banks—Bank of China Limited, Bank Woori Indonesia, and Standard Chartered Bank—as exhibiting full efficiency levels during the study period. Conversely, Maybank Syariah, Bank Chinatrust Indonesia, JP Morgan Chase Bank N.A., Bank Mestika Dharma, Rabobank Internasional Indonesia, and Royal Bank of Scotland N.V. demonstrated varying efficiency levels. Additionally, among the forty other banks examined, inefficiencies were reported.

Furthermore, the Mann-Whitney test outcomes indicated a notable uptick in efficiency scores for both conventional and Islamic banking in Indonesia from the first quarter of 2012 to the third quarter of 2013.

CONCLUSION

Based on some of the research findings that have been analyzed about the efficiency systems of Islamic banks and conventional banks, it can be concluded that a thorough understanding of the specific features of each system is necessary to compare the two. The literature has shown that each component of Islamic banks and conventional banks is different and has its own advantages. Therefore, Shariah compliance, capital structure, and social values are important components in the efficiency of Islamic banking need to be further analyzed. In contrast, conventional banking focuses more on financial metrics such as ROA and ROE. The results of this study show how difficult it is to assess banking efficiency, and suggest that a more contextualized evaluation approach is needed to describe the financial and non-financial aspects of both systems simultaneously.

Suggestion

It is necessary to further analyze each component in both types of banks, both Islamic banks and conventional banks in terms of sharia compliance, capital structure, and social values so that it can help researchers and banking businesses understand in increasing company profits and consumer convenience.

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