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# Islamic Banks in Indonesia: Analysis of Efficiency

Islamic Banks  
in Indonesia

Anwar Puteh

*Faculty of Economics and Business, Universitas Malikussaleh Lhokseumawe, Aceh,  
Indonesia*

Muhammad Rasyidin

*Lecture in Faculty Economics and Business, Universitas Malikussaleh  
Lhokseumawe, Aceh, Indonesia*

Nurul Mawaddah

*Lecture at Department of Tata Niaga, in Politeknik Negeri Lhokseumawe, Aceh,  
Indonesia*

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## Abstract

**Purpose** – The purpose of the research is to analyze the efficiency of Islamic banks in Indonesia. The data used in this research are panel data observed from 2012 until 2016. The sampling of this research is conducted on five Sharia banks in Indonesia, that is, Bank Muamalat, Bank SyariahMandiri, BukopinSyariah, BRI Syariah, and Bank Mega Syariah.

**Design/Methodology/Approach** – The study uses a quantitative method to analyze the efficiency of Sharia banking with formulation of comparison of operating expenses to operating revenues (BOPO).

**Finding** – The result of this research concludes that Sharia banking in Indonesia has not been efficient during the last five years, that is, 2012–2016. This can be seen from the range of banking efficiency ratio. The average level of Islamic banking efficiency ranges between 89.73% and 94.16%. Bank Muamalat whose range is 94.16% shows the highest average efficiency ratio compared to other Sharia banks. Meanwhile, Bank Mega Syariah maintains the lowest average efficiency ratio that is 89.37%. The five Sharia banks have a high efficiency ratio of over 80%. This shows that Sharia banking in Indonesia is inefficient

**Originality/Value** – The bank should be able to balance between cost (cost) and revenue. Sharia banks must also be able to create good product innovation in order to increase the collection of funds from the community, such as for competitive outcomes, prizes, or other programs that raise public interest to use the services of Sharia banking.

**Research Limitations/Implications** – This inefficiency is due to the high bank operating costs compared to the bank's operating income.

**Keywords** Efficiency, Islamic banks

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## 1. Introduction

The presence of Sharia banking further adds to the variant forms of financial institutions significantly for the development of the banking system in Indonesia. The emergence of these sharia financial institutions began with the issuance of regulations or legislation by Indonesia Bank on Law No. 7 of 1992 concerning legality of sharia banks operating in Indonesia which implements profit-sharing system. To date, sharia financial institutions operating in Indonesia include Sharia Banks (BUS) totaling 10 units, Sharia Business Unit (UUS) totaling 23 units, and Shariah Community Finance Bank as many as 149 units (Bank Indonesia Sharia Banking Statistics, 2010). With these developments, the challenges of sharia banking in carrying out its activities are also getting bigger. Islamic banking, as part of the banking structure, has a role similar to other conventional general banking in meeting the needs of society and encourages sustainable national economic development. Therefore, in dealing with this condition sharia banks should improve its efficiency in carrying out operational activities.

## 2. Literature Review

The concept of efficiency is fundamental and born out of the economic concept. Nevertheless, the concept of efficiency can be defined from different points of view and backgrounds. Efficiency, in general, can be directed to a concept of achieving the result with the optimal use of resources. In economic theory, there are two general concepts of efficiency, namely efficiency in terms of economic concepts and efficiency in terms of the concept of production. Efficiency in economic concept has broader scope in terms of the macro perspective, while efficiency in the concept of production viewed from microperspective. The concept of production is limited to looking at relationships and operations in a production process, that is, conversion of inputs into outputs (Adrian and Lestari, 2009). Efficiency in the concept of production tends to assess operations, so that efficiency in the concept of production is generally looked upon from the point of view and cost.

Rahim *et al.* (2015) analyzed the efficiency of Islamic banks in Malaysia using the Data Envelopment Analysis (DEA) for the years 2008 until 2009. This study shows that there is inefficiency in bank profit compared to expense and revenue, because the category of Islamic banks provided a different efficiency level. Research conducted by Ada and Dalkilic (2014) studied the efficiency level on 19 countries in Asia, North Africa, and Middle East by using a DEA approach from 1998 until 2011. This study shows the efficiency of Islamic banks in Malaysia and Turkey, except for three banks, as an increase for the banks in Malaysia and a decrease for Turkey.

Yudistira (2004) examines the efficiency in Islamic banking using an empirical analysis of 18 banks using DEA. The results show that inefficiency across 18 Islamic banks is small. According to Kost and Rosenwig in Sutawijaya dan Lestari (2009a, 2009b), there are three conditions for achieving efficiency, namely (a) if using the same input, it can produce a larger output; (b) by using smaller inputs the same output can be produced; and (c) by using large inputs result in greater output. In economic activity, the concept of efficiency is directed by how the creation of goods and services at the lowest possible cost can be achieved and able to allocate economic resources to the most valuable use (Taswan, 2006). Banking as one of the vital financial institutions is required to have a good performance. One indicator of good performance is efficiency.

Muljono (1999) mentions that efficiency in banking includes an assessment of business efficiency and cost efficiency. Meanwhile *et al.* (2016), who study the savings and loans cooperative in North Aceh, said that it is necessary to improve cooperatives' management in order to manage assets and capital better. Berger and Mester in Priyonggo (2008) points out

that the efficiency of banking can be observed from two sides, namely in terms of cost (cost efficiency) and profitability. In terms of cost (cost efficiency), a bank is assessed by comparison with other bank showing the best practice bank's cost and producing the same output and technology. While in terms of profit (profit efficiency), the bank's ability to generate profit on each input unit used to measure the level of efficiency of banking. Research in banking efficiency can be conducted by measuring the extent to which the relationship between the output generated by the banking to the number of inputs used. However, the banking business is certainly different from other industries. Banking as an institution/company engaged in the financial sector has variable output and input different from industry or companies engaged in the real sector. Therefore, the measurement of bank efficiency needs to be preceded by first recognizing the input-output variables in the activity.

### 3. Research Methods

The design of this study can be determined by measuring the level of efficiency in Islamic banking in Indonesia by using the approach and cost, so it will produce the level of efficiency and the level of cost efficiency. According to Mulyono (1995) greater ratio indicates higher cost efficiency obtained by a bank. The object of this research is sharia banking in Indonesia, by taking as many as five Indonesian sharia commercial banks as sample: Bank Muamalat Indonesia, Bank Mandiri Syariah, Bank Mega Syariah, Bank BRI Syariah, and Bank Bukopin Syariah. The data used in conducting this research are secondary data sourced from Indonesian Banking Statistics and Indonesian Syariah Banking data. One of the financial ratios used by banks to measure efficiency is Operational Expense with Operating Income (BOPO). BOPO is the ratio between operating expense and operating income, the lower the ratio of BOPO means the better performance of the bank's management, because it is more efficient in using the existing resources in the company. Ideally, the ratio of BOPO ranges from 70% to 80%. If the BOPO ratio exceeds 80%, then the bank is said to be inefficient. According to Arifin (2009a, 2009b), the bank inefficiency is due to high operational expenses incurred by banks compared with income received from bank operations.

### 4. Discussion

The results and data analysis will be done by calculating the level of efficiency in sharia banking. Capital is an important part of input in supporting the ongoing business operations in a banking unit. The capital in question includes funds invested by the owner in order to finance the business activities of the bank. The development of capital in sharia banking in Indonesia from year to year can be seen in Table 1 as follows.

From Table 1, it can be observed that the total five Islamic banks show increasing growth of capital composition each year. However, when viewed partially from each sharia banking, the increase in capital composition actually does not occur every year. This can be seen from 2012 to 2014 the composition of capital from Islamic banks did not increase,

No	Banks' Names	2016	2015	2014	2013	2012
1	Bank Muamalat	3.619	3.519	3.896	3.241	1.918
2	Mandiri Syariah	153.369	119.491	104.844	88.79	75.755
3	Bukopin Syariah	798	633	503	292	273
4	BRI Syariah	2.51	2.339	1.714	1.711	1.068
5	Bank Mega Syariah	1.061	874	781	770	620

**Table 1.**  
Amount of Sharia  
Banking Capital (in  
Billion Rupiah)

except Bank Mega Syariah. Increase in capital composition occurs in 2015 and 2016 in each Syariah bank. Nevertheless, an increase in the capital composition experienced indicates the ability of sharia banks to provide sufficient funds primarily in support of bank operations.

The biggest output in the sharia banking business is products in the form of financing, namely the distribution of funds to the community either individually or in the form of legal entities (companies). This is in accordance with the implementation of sharia principles in muamalah sharia banking. In general, activities of channeling funds in Islamic banks in Indonesia consist of several patterns, including: (1) principles of profit sharing, which produce Mudharabah and Musyarakah Financing products; (2) the Sale and Purchase Principle (Al-Bai'), which produces the Murabahah product, the Salam contract, and the Istishna contract; (3) Rental Principles known as Ijarah products; and (4) The Borrow-Borrowing Principles or known as Al-Qardh products. These products are the outputs developed by sharia banks in Indonesia today.

The development of total cost incurred by sharia banks in Indonesia can be seen in Table 2 as follows:

Viewed from the year 2012 to 2016, generally the amount of financing made by Islamic banks has increased, except at Bank Muamalat which has decreased over the last two years. One way to increase financing is by lowering lending rates. If the banking credit interest rate can be lowered, it will inevitably the cost of fund will decrease. Reduced lending rates will have a positive impact on financing disbursements. On the other hand, banks should also be careful in channeling the financing, this will lead to increased ratio of non-performing loans (NPL) banks.

The increase in the scale of banking business shows an increase in the capacity to generate productive assets. The development of business scale in sharia banks in Indonesia can be seen in Table 3 as follows:

From year to year Islamic banks have grown in terms of scale business. The data can be seen from the growth of total assets owned by sharia banks from 2012 to 2016. This shows that the development of sharia banks in Indonesia has increased, except Bank Muamalat and Bank Mega Syariah. However, the growth of the scale of business in sharia banking in Indonesia is still not evenly distributed. This can be seen from the gap of the asset value of several large sharia banks.

The calculation of bank efficiency will result in an efficiency ratio between input and output of sharia banking. Ratio rates vary greatly between 0 and 1 or up to 100%. A bank is

**Table 2.**  
Total Cost of Islamic  
Banking (in Billion  
Rupiah)

No	Banks' Names	2016	2015	2014	2013	2012
1	Bank Muamalat	40.01	40.706	42.865	41.612	32.861
2	Syariah Mandiri	55.58	51.09	49.133	50.46	44.755
3	Bukopin Syariah	4.799	4.307	3.711	3.282	2.622
4	BRI Syariah	6.457	5.073	4.882	3.97	2.597
5	Bank Mega Syariah	4.715	4.211	5.456	7.185	6.214

**Table 3.**  
Total Assets of  
Sharia Banking (in  
Billion Rupiah)

No	Nama Bank	2016	2015	2014	2013	2012
1	Bank Muamalat	55.786	57.141	62.41	53.707	44.262
2	Syariah Mandiri	78.832	70.37	66.956	63.965	54.229
3	Bukopin Syariah	7.02	5.827	5.161	4.343	3.616
4	BRI Syariah	27.687	24.23	20.341	17.401	14.089
5	Bank Mega Syariah	6.135	5.56	7.045	9.122	8.164

said to be efficient if it has a ratio of close to 1 or 100%, whereas close to 0 indicates a lower bank efficiency or inefficiency (Priyonggo, 2008). Measuring the level of efficiency of sharia banking in Indonesia is done by comparing the output variables in the form of total financing output (financing) conducted on inputs used in the form of Third Party Funds (DPK) and Total Paid-in Capital. The level of efficiency in sharia banking in Indonesia from 2012 to 2016 can be seen from Table 4 as follows:

Table 4 shows the ratio of efficiency level in sharia banks in Indonesia from 2012 to 2016. The level of efficiency of sharia banking is measured using the operational cost comparison with operational income (BOPO). The higher ratio indicates low efficiency of the operational side of the banking industry. From the last five years data, the average efficiency ratio of sharia banking in Indonesia is in the range of 89.73% to 94.16%. This shows that the average sharia banking in Indonesia has not been efficient. According to Karyadi in Arifin (2009a, 2009b) BOPO ideal ratio ranges from 70% to 80%. If the BOPO ratio exceeds 80%, the bank is said to be inefficient. The inefficiency of the bank is due to the high operating cost and operating income. Therefore, the bank must improve its operational performance to be efficient.

Bank Muamalat has a higher average efficiency ratio of 94.16%, compared to other sharia banks, such as Syariah Mandiri, Bukopin Syariah, BRI Syariah, and Bank Mega Syariah with average efficiency ratio of 93.32%, 92.88%, 89.73%, and 89.37%, respectively. This shows that in general Islamic banks are still not efficient in terms of managing inputs optimally to produce the expected output. Sharia banking in Indonesia should further optimize efficiency, because it can be able to mediate between debtors and creditors.

This inefficiency is due to the fact that syariah banking has not been able to generate revenue from the amount of cost incurred. If banks are able to improve the efficiency of the operational side, it will enable banks to increase profits. This decrease in efficiency is due to lower operational costs caused by smaller allocation of reserves. The low cost of this reserve is due to the high number of NPL that will spur cheap funds. To anticipate this, banks must be able to reduce cost of funds and also must try to improve the quality of credit to reduce the cost of reserve.

## 5. Conclusions

Islamic banking in Indonesia during the period 2012–2016 has not been efficient, with the average bank efficiency ratio ranges 89.73–94.16%. Inefficient sharia banks can make policy improvements. The inefficiency of sharia banking shows that it has not been optimal in managing output compared to inputs, so it is necessary to pursue a policy in the form of greater socialization to the public of financing products in accordance with sharia principles, in order to encourage more effective and optimal output growth in sharia banking. This inefficiency is due to increased operational costs annually. Therefore, sharia banking should improve the quality of services, so that Islamic banks can compete and be able to contribute better to the economy of the community.

No	Banks' Names	2016	2015	2014	2013	2012	Rata-rata
1	Bank Muamalat	97.76	97.36	97.33	93.86	84.47	94.16
2	Syariah Mandiri	94.12	94.78	98.49	86.46	73.00	89.37
3	Bukopin Syariah	91.76	91.99	96.77	92.29	91.59	92.88
4	BRI Syariah	91.33	93.79	99.77	90.42	91.31	93.32
5	Bank Mega Syariah	88.16	99.51	97.61	86.09	77.28	89.73

**Table 4.**  
Level of Sharia  
Banking Efficiency  
(in Percentage)

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**Corresponding author**

Anwar Puteh can be contacted at [anwarputeh@unimal.ac.id](mailto:anwarputeh@unimal.ac.id)