

THE EFFICIENCY OF AMIL ZAKAT INSTITUTIONS (LAZ) IN INDONESIAN ISLAMIC BANKS: Data Envelopment Analysis Approach

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Abstract: The Amil Zakat Institution (LAZ), based on Islamic bank corporations, has shown a significant role based on the mandate of the 2008 law on the social functions of Islamic banks. However, a performance evaluation is needed to see how efficient the LAZ is in its operations. This study aims to analyze the level of efficiency of the LAZ of Islamic bank corporations in Indonesia. This research method uses a quantitative design with an associative approach. The research subjects were five. Due to limited data, two samples were taken, namely the LAZ of Islamic bank corporations, including Baitulmal Bank Muamalat (BMM) Indonesia and BSM Ummah (BSMU). Efficiency analysis uses the Data Envelopment Analysis (DEA) method of production, asset and intermediation approaches, and the data is tested using Warwick DEA software. The results of this study indicate that all OPZ based on Islamic banks have efficient performance with a value of 100% both on the assumption of Constant Return to Scale (CRS) and Variable Return to Scale (VRS). This means that OPZ from Islamic bank corporations can collect and distribute ZISWA funds. The results of this study also indicate that there are limitations to the research carried out. The researcher recommends further research to add other, more comprehensive approaches, such as intermediation and assets.

Keywords: DEA; efficiency; LAZ Islamic Banks; production; management of OPZ.

Abstrak: Lembaga Amil Zakat (LAZ) berbasis korporasi bank syariah telah menunjukkan peran yang signifikan berdasarkan amanat undang-undang 2008 tentang fungsi sosial bank syariah. Namun, demikian, diperlukan evaluasi kinerja untuk melihat seberapa efisien LAZ tersebut dalam operasionalnya. Tujuan penelitian ini untuk menganalisis tingkat efisiensi LAZ korporasi bank syariah di Indonesia. Metode penelitian ini menggunakan desain kuantitatif dengan pendekatan asosiatif. Subyek penelitian berjumlah lima. Adanya keterbatasan data, diambil dua sampel yakni LAZ korporasi bank syariah meliputi Baitulmal Bank Muamalat (BMM) Indonesia dan BSM Umat (BSMU). Analisis efisiensi menggunakan metode Data Envelopment Analysis (DEA) pendekatan produksi, asset dan intermediasi dan data diuji dengan menggunakan software Warwick DEA. Hasil penelitian ini menunjukkan semua OPZ berbasis bank syariah mempunyai kinerja efisien dengan nilai 100% baik asumsi Constant Return to Scale (CRS) dan Variable Return to Scale (VRS). Artinya OPZ dari korporasi bank Syariah mempunyai kemampuan menghimpun dan menyalurkan dana ZISWA. Hasil penelitian ini juga menunjukkan adanya keterbatasan penelitian yang telah dilakukan. Peneliti merekomendasikan penelitian selanjutnya untuk menambahkan pendekatan lain yang lebih komprehensif seperti dalam aspek intermediasi dan asset.

Kata kunci: DEA; efisiensi; LAZ Bank Syariah; produksi; manajemen OPZ.

Introduction

Poverty alleviation has been carried out as much as possible by the government, but it has not been able to have a significant effect. Philanthropic instruments such as zakat, infaq and alms are often used to alleviate poverty in Indonesia.¹ In realizing the distribution of these

social funds, currently, there are many zakat management organizations, both the Amil Zakat Institution (LAZ) and the Amil Zakat Agency (BAZ), which are located at the provincial to village level (Damayanti, 2018). In practice, the sources of funds or fundraising with instruments of zakat, infaq

¹ Ira Humaira Hany, Dina Islamiyati, "Pengaruh ZIS

Dan Faktor Makro Ekonomi Terhadap Tingkat Kemiskinan Di Indonesia," *Jurnal Ekonomi*, vol. 25, no. 1 (2020), p. 118.

and alms cannot be accessed by all people in need. Therefore, methods and tools are needed to make and provide convenience for the poor to get access to capital in the form of zakat.² With the largest Muslim population in the world, it is hoped that it will reduce poverty so that economic prosperity in Indonesia can be achieved through zakat. There have been enough studies that mention the potential of zakat in Indonesia.³ Based on BAZNAS,⁴ the potential for zakat in Indonesia reaches Rp. 233.8 trillion, with details of company zakat having a potential value of Rp. 6.71 trillion, livestock zakat of Rp. 9.51 trillion, agricultural zakat of Rp. 19.79 trillion. Money amounting to Rp. 58.76 trillion, and the highest potential value of zakat is in income zakat, which reaches Rp. 139.07 trillion.

The *amil zakat* institution (LAZ) is a form of zakat management institution formed by the community and then confirmed by the government to manage zakat, *infaq* and alms funds. Islamic banks do not only function as institutions with functions.

The problems that arise in maximal zakat collection usually revolve around regulations and political will that are less supportive, *muzakki*'s distrust of existing zakat management institutions, both private and especially government, to internal problems zakat management organization itself, such as lack of accountability, lack of transparency: and managerial issues.⁵

Another major problem that arises in the management of zakat is the vast gap between

the potential of zakat and its realization; this is due to the problem of zakat management institutions and public awareness problems and the problem of zakat an unintegrated zakat management system.⁶ Policies and regulations need to be made to deal with these obstacles. There are sanctions for *muzakki* who do not pay tithe, improving the quality of human resources in professionalism, credibility, accountability and transparency in the management of zakat funds and the synergy between the overall tax and zakat system policies.⁷ One of the tangible forms is the formation and improvement of legislation.

The last problem faced is that there are still *khilafiyah* issues regarding zakat *fiqh*, weak coordination between zakat management organizations (OPZ), low trust of *muzakki* to OPZ and regulators, low awareness of *muzakki* in paying zakat correctly according to the sharia and common knowledge of *muzakki* about zakat *fiqh*.⁸ The lack of transparency and accuracy of targets in the distribution of zakat is one of the reasons that underlie the lack of public trust.⁹

Problems that often occur in LAZ include productivity, efficiency, effectiveness, and service quality to collect and distribute zakat.¹⁰ Many of the constraints faced in productivity are related to the non-optimal sources of fundraising that can be explored. Limitations in the achievement of fundraising can also be caused by the lack of maximum quality of services provided and the distribution and achievement of empowerment that has not been widely disseminated in the form of routine reports.

² Yoghi Citra Pratama, "Peran Zakat Dalam Penanggulangan Kemiskinan (Studi Kasus: Program Zakat Produktif Pada Badan Amil Zakat Nasional)", vol. 1, no. 1 (2015), pp. 93–104.

³ Abdul Karim, M Mudhofi, And Wawan Arwani, "Analisis Spasial Potensi Zakat Dan Kemiskinan Di Indonesia," *Ijtima'iyya*, vol. 13, No. 2 (2020), pp. 117–130; Novitasari And Rofiul Wahyudi, "Pengaruh Zakat Produktif Dan Etos Kerja Terhadap Kesejahteraan Mustahiq (Studi Kasus Baitul Maal Bmt Bina Ummah Yogyakarta)," *Jurnal Studi Islam*, vol. 22, No. May (2019); Siti Nurhasanah And Suryani, "Maksimalisasi Potensi Zakat Melalui Peningkatan Kesadaran Masyarakat," *Jebi (Jurnal Ekonomi Dan Bisnis Islam)*, vol. 3, No. 2 (2018), pp. 185–195; P Wibisono, Y., Senior And P. Feui, *Potensi Zakat Nasional: Peluang Dan Tantangan Pengelolaan*, 2016; Abdulloh Mubarak And Baihaqi Fanani, "Penghimpunan Dana Zakat Nasional (Potensi, Realisasi Dan Peran Penting Organisasi Pengelola Zakat)," *Permana*, vol. 5, No. 2 (2012), pp. 7–16.

⁴ Baznas, *Statistik Zakat Nasional 2017*, (2017).

⁵ Eri Sudewo, *Manajemen Zakat: Tinggalkan 15 Tradisi Terapkan 4 Prinsip Dasar*, (Jakarta: Institut Manajemen Zakat, 2004).

⁶ M Indrijatiningrum, *Zakat Sebagai Alternatif Penggalangan Dana Masyarakat Untuk Pembangunan*, (Jakarta: FE-UI, 2005).

⁷ Fiqih Afriadi and Yulizar D Sanrego, "Mengurai Permasalahan Distribusi Zakat Kepada Fakir Miskin: Pengalaman Organisasi Pengelola Zakat Baznas, Dompot Dhuafa, Dan Lazizmu," *Jurnal Madania*, vo; 20, no. 1 (2016), pp. 23–36.

⁸ N. Mintarti et al., *Indonesia Zakat and Development Report 2012*, (Jakarta, 2012).

⁹ I. Firmansyah And W Sukmana, "Analisis Problematika Zakat Pada Baznas Kota Tasikmalaya: Pendekatan Metode Analytic Network Process (Anp)," *Jurnal Riset Akuntansi Dan Keuangan*, vol. 2, no. 2 (2014), pp. 392–406.

¹⁰ Hairul Suhaimi Nahar, "Exploring Stakeholders' Views On A Corporatized Zakat Institution's Management Performance," *International Journal Of Ethics And Systems*, vol. 34, no. 4 (2018), pp. 608–631.

Therefore, some of the problems that arise above are the reasons and essential objectives of this research. This study aims to analyze the level of efficiency of the LAZ of Islamic bank corporations in Indonesia. This research is also urgent to do for several reasons. First, there is a research gap which is indicated by the findings of inconsistent results. Second, studies on managing Islamic bank LAZ social funds during the COVID-19 pandemic are urgently needed to assess Islamic bank social functions.¹¹ Third, the findings of Yunani et al. (2020) suggest adding data and variables to the Data Envelopment Analysis (DEA) test.¹² In addition, this research contributes to the LAZ of Islamic bank corporations; very few investigations have been carried out.

Many types of research related to zakat and the role of LAZ and BAZ activities have been carried out, considering that philanthropy is said to improve economic welfare.¹³ Research related to zakat with the efficiency domain.¹⁴ Research with the domain of productivity.¹⁵

Furthermore, research using literacy variables.¹⁶ Research on the application of zakat according to Islamic law.¹⁷ At the same time, research on the LAZ domain of Islamic bank corporations has been carried out such as¹⁸.

Piliyanti and Meilani's research¹⁹ measures the efficiency of zakat institutions operating on several campuses in Indonesia. Data Envelopment Analysis (DEA) analysis technique is used to evaluate the efficiency of campus zakat institutions in Indonesia. The findings show three Decision-Making Units (DMUs) with a constant value of 100%, namely the UGM zakat institution and UMS. Meanwhile, the six DMUs show the direction of increasing towards the optimal level of efficiency (increasing).

Conference Of Zakat 2019 Proceedings, (2019), pp. 223–257; Selvia Rustyani and Suherman Rosyidi, "Measurement Of Efficiency And Productivity Of Zakat Institutions In Indonesia Using Data Envelopment Analysis And The Malmquist Productivity Index," *International Journal Of Zakat*, vol. 3, no. 3 (2018), pp. 69–82; Salman Al Parisi, "Tingkat Efisiensi Dan Produktivitas Lembaga Zakat Di Indonesia," *Esensi: Jurnal Bisnis Dan Manajemen*, vol. 7, no. September 2016 (2017), pp. 63–72.

¹⁶ Lailatul Fitri and Falikhatur, "Religiosity, Literacy, Income, and Accessibility to Awareness in Professional Zakah Payment: A Quantitative Study," *International Journal of Zakat*, vol. 6, no. 1 (2021), pp. 39–48; Selli Annafi'atul Mukaromah and Aan Zainul Anwar, "Tingkat Literasi Zakat Kontemporer Pada Pesantren Salaf," *JASNA: Journal for Aswaja Studies*, vol. 1, no. 1 (2021), pp. 51–63; Adela Miranti Yuniar and Rahmatina Awaliah Kasri, "Zakat Literacy and Digital Zakat Payment: Evidence from Indonesia," in *Research on Firm Financial Performance and Consumer Behavior* (Nova Science Publishers, Inc., 2020), pp. 221–237; Rizaldi; Yusfiarto, Amanda; Setiawan, and Septi Setia Nugraha, "Literacy and Intention to Pay Zakat: A Theory Planned Behavior View Evidence from Indonesian Muzakki," *International Journal of Zakat*, vol. 5, no. 1 (2020), pp. 15–27.

¹⁷ Sulistya Ayu Anggraini and Asep Saepudin Jahar, "Reformulasi Zakat Profesi Dalam Kerangka Filosofi Hukum Islam," *Istinbath*, vol. 19, no. 1 (2020), pp. 144–164; Regita Cahya Gumilang, "Tinjauan Hukum Islam Terhadap Keabsahan Pembayaran Zakat Yang Dilakukan Secara Online Yang Berafiliasi Dengan Baznas Menurut Imam Syafi'i," *Dinamika, Jurnal Ilmiah Ilmu Hukum*, vol. 26, no. 7 (2020), pp. 929–939; Ronny Mahmuddin et al., "Hukum Menyegerakan Penyerahan Zakat Harta Dan Zakat Fitrah Di Saat Pandemi Covid-19," *Bustanul Fuqaha: Jurnal Bidang Hukum Islam*, vol. 1, no. 2 (2020), pp. 125–136.

¹⁸ Chams Eddine Djaghballou et al., "Efficiency and Productivity Performance of Zakat Funds in Algeria," *International Journal of Islamic and Middle Eastern Finance and Management*, vol. 11, no. 3 (2018), pp. 474–494; Akhmad Arif Rifan, "Analisis Efektivitas Distribusi Zakat Pada Baitulmal Bank Syariah Indonesia" 6, no. 1 (2020): 31–40.

¹⁹ Indah Piliyanti and Sayekti Endah Retno Meilani, "Benchmarking Lembaga Zakat Kampus: Kajian Atas Efisiensi Fundraising Zakat Menggunakan Data Envelopment Analysis (Dea)," *Jurnal Perspektif Ekonomi Darussalam*, vol. 6, no. 1 (2020), pp. 15–35.

¹¹ A R Azhari, A Salsabilla, And R Wahyudi, "Performance Analysis Of Islamic Bank Social Funds In The Covid-19: Evidence From Indonesia," In *Islam In World Perspectives Symposium*, vol. 1, (2020), pp. 1–7.

¹² A. Yunani Et Al., "Efficiency Of Zakat Management Organization (Opz) Bank Syariah: Data Envelopment Analysis Approach," *Hamdard Islamicus*, vol. 43, no. 1 (2020), pp. 221–231.

¹³ Novitasari and Wahyudi, "Pengaruh Zakat Produktif Dan Etos Kerja Terhadap Kesejahteraan Mustahiq (Studi Kasus Baitul Maal Bmt Bina Ummah Yogyakarta)." "

¹⁴ Desy Rahmawati, "Analisis Efisiensi Organisasi Pengelola Zakat Nasional Dengan Pendekatan Data Envelopment Analysis (Dea)" (Universitas Muhammadiyah Surakarta, 2020); Ninda Ardiani, "The Efficiency Of Zakat Collection And Distribution: Evidence From Data Envelopment Analysis," *Al-Uqud: Journal Of Islamic Economics*, vol. 3, no. 1 (2019), pp. 54–69; Ayief Fathurrahman And Ibnu Hajar, "Analisis Efisiensi Kinerja Lembaga Amil Zakat Di Indonesia," *Jes (Jurnal Ekonomi Syariah)*, vol. 4, No. 2 (2019), pp. 117–128; Safaah Restuning Hayati And Syah Amelia Manggala Putri, "The Efficiency Of Zakat Management Organizations In Indonesia: Data Envelopment Analysis Approach," *Muqtasid*, vol. 10, no. 2 (2019), pp. 95–106; Solahuddin Al-Ayubi, Ascarya, And Bayu Taufic Possumah, "Examining The Efficiency Of Zakat Management: Indonesian Zakat Institutions Experiences," *International Journal Of Zakat*, vol. 3, no. 1 (2018), pp. 37–55; Ahmad Alam, "Permasalahan Dan Solusi Pengelolaan Zakat Di Indonesia," *Jurnal Manajemen*, vol. 9, No. 2 (2018), p. 128; Ikka Nur Wahyuni, "Efisiensi Organisasi Pengelola Zakat Nasional Dengan Metode Data Envelopment Analysis," *Journal Of Islamic Economics Lariba*, vol. 2, no. 1 (2016), pp. 1–12.

¹⁵ Aas Nurasyiah, Faqih Adam, And Risa Sari Pertiwi, "Efficiency And Productivity Of Zakat Institution In Malaysia And Indonesia: The Comparative Study," In *International*

Takril and Othman²⁰ also measure the efficiency and effectiveness of zakat institutions at Selangor universities by using the Zakat Effectiveness Index (ZEIN). The findings show the ineffectiveness of collecting and distributing zakat in universities in Selangor. The researcher suggests that the Selangor Zakat Institute (LZS) should improve the had kifayah used in determining the basic needs of asnaf. LZS also needs to improve the distribution portion of zakat calculation in universities to remain effective, which is expected to increase the effectiveness of zakat distribution.

Furthermore, the research of Atiya²¹ used zakat institutions in Indonesia such as BAZNAS, LAZ Rumah Zakat, LAZ Dompot Dhuafa, and YBM PLN as research samples. Through the production and intermediation approach, his research evaluates the efficiency of zakat institutions in Indonesia. In measuring the efficiency using Super Efficiency DEA. From four institutions with three observation periods, 2016-2018 (12 DMUs), three DMUs showed an efficient value. It is suspected that the result of this inefficiency is because zakat institutions tend to

Pujianto and Kristenngsih²² analysis measure the efficiency level of digital services at BAZNAS. This study evaluates the digital service of zakat receipts based on data obtained from the 2016-2018 BAZNAS financial statements and audited financial reports from the Kitabisa.com digital service program for zakat receipts. The findings show that digitally managing zakat receipts has an efficiency value of 100% using a frontier approach that focuses on the Constant Return to Scale (CRS) model.

Purnama Subardi²³ measure efficiency and

compare Zakat Management Bodies from three countries, namely Indonesia, Malaysia and Singapore. The sampling technique used purposive sampling, which obtained the results of three national zakat management bodies established, legalized, and recognized by the ministries of the religion of each country. Using secondary data from the publication of financial statements for 2013-2017, 15 DMUs were obtained. The findings show inefficiency in two DMUs, namely BAZNAS 2013 (84.73%) and 2015 (75.14%), while the other 13 DMUs show a constant, efficient value of 100%.

In Malik and Senjiati's²⁴ analysis on zakat institutions in West Java, two efficiency analysis models are used: Variable Return to Scale (VRS) and CRS with DEA software. This study evaluates the efficiency of zakat in the period of the covid-19 pandemic. The findings show that several institutions at the regional level achieve efficiency levels above 50%. It is suspected that the distribution of zakat funds focuses on hospitals, schools, and communities that impact the COVID-19 outbreak. With this, it can support Rizal and Mukaromah²⁵ research that Islamic philanthropic funds can be a form of anticipation in the economic constraints of society, both used in consumptive and productive forms.

Hayati and Putri²⁶ analyzed 16 DMUs from 4 zakat management institutions in Indonesia in the 2015-2018 period using purposive sampling as the sampling technique. The findings show that 7 DMUs are proven to be efficient using the CRS model approach through the DEA method with Banxia Frontier Analyst (BFA) analysis software. The researcher assumes that the source of the inefficiency of the 9 DMUs comes from the production input variable. The implication lies in the

²⁰ Nur Fikhriah Takril and Nor Faizah Othman, "Effectiveness of Zakat Collection and Distribution of Zakat Counter at Higher Learning Institutions," *International Journal of Islamic Economics and Finance Research*, vol. 3, no. 2 (2020), pp. 91-106.

²¹ Nikmatul Atiya et al., "A Techno-Efficiency Analysis of Zakat Institutions in Indonesia," *International Journal of Zakat*, vol. 5, no. 3 (2020), pp. 30-43.

²² Bunga Larasati Pujianto and Kristianingsih, "Analisis Program Layanan Zakat Digital Terhadap Penerimaan Zakat Dengan Pendekatan Data Envelopment Analysis (DEA) Pada Badan Amil Zakat Nasional," *Journal of Applied Islamic Economics and Finance*, vol. 1, no. 1 (2020), pp. 15-22.

²³ Hani Meilita Purnama Subardi, Citra Sukmadilaga, and Indri Yuliafitri, "Analisis Tingkat Efisiensi Badan Pengelola Zakat

Di Tiga Negara Asean (Indonesia, Malaysia Dan Singapura)," *Ekonomi, Jurnal Volume, Islam Economics, Islamic*, vol. 11, no. 1 (2020), pp. 55-76.

²⁴ Zaini Abdul Malik and Ifa Hanifia Senjiati, "Efficiency Service Handling COVID 19 The Institute of Zakat By Method of Data Envelopment Analysis (DEA)," *Journal of Islamic Business and Economic Review*, vol. 3, no. 2 (2020), pp. 72-80.

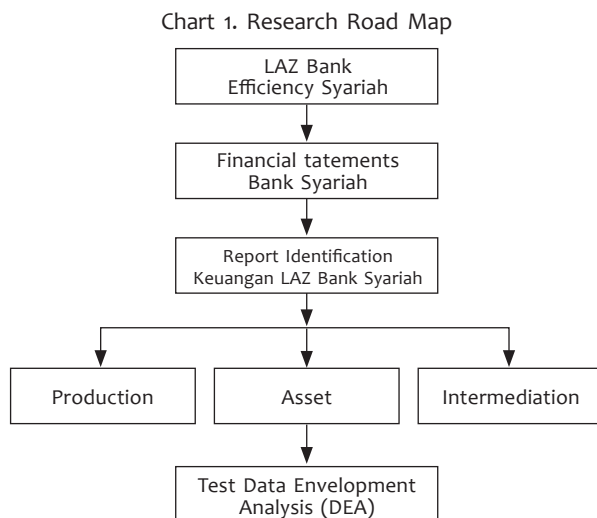
²⁵ Fitra Rizal and Haniatul Mukaromah, "Filantropi Islam Solusi Atas Masalah Kemiskinan Akibat Pandemi Covid-19," *AL-MANHAJ: Jurnal Hukum dan Pranata Sosial Islam*, vol. 3, no. 1 (2020), pp. 35-66.

²⁶ Hayati and Putri, "The Efficiency of Zakat Management Organizations in Indonesia: Data Envelopment Analysis Approach."

ability of zakat management institutions to combine existing resources to achieve maximum output.

Yunani²⁷ investigated OPZ in Islamic banks using a production and intermediation approach through DEA software. As a result, both the production and intermediation approaches show an efficiency value of 100% in the two Islamic bank zakat institutions. This seems to support the research of Al-Ayubi, Ascarya and Possumah²⁸, which also analyzes OPZ in Islamic banks, that zakat institutions in the banking environment tend to minimize inputs to achieve maximum output. Because the zakat collected comes from customers to employees, it reduces the cost of socialization.

Based on the literature review, many empirical studies have been conducted to investigate the efficiency of LAZ and BAZ. The existing empirical results, however, yield mixed results. In addition, there is not much research on the efficiency of Islamic bank corporate LAZ. The roadmap for this research is depicted in chart 1.



Method

The design of this research is descriptive quantitative by describing the information on the analysis in the form of numbers.²⁹ The research subjects are all amil zakat institutions in Islamic

banks, totalling 5 institutions. The existence of limited data required, taken as a sample of 2 institutions in this study, namely LAZ Islamic bank corporations. Sampling technique based on consideration; First, Islamic banks are obliged to carry out two functions, namely the financial intermediation function and the Amil Zakat Institution based on the law's mandate. Second, the LAZ of Islamic bank corporations already has reporting standards following the applicable Statement of Financial Accounting Standards (PSAK). Third, LAZ has financial statements for the 2019-2020 period so that the selected research samples are Baitulmal Bank Muamalat (BMM) Indonesia and BSM Ummah (BSMU), which are reliable with sample criteria.

According to Akbar,³⁰ there is no minimum limit on the number of DMUs that must be analyzed. The Data Envelopment Analysis (DEA) approach is processed on Warwick DEA software with input-output orientation. Efficiency analysis uses a production approach with Constant Return to Scale (CRS) Assumption and Variable Return to Scale (VRS) Assumption models. This analysis technique aims to determine the Amil Zakat Institution (LAZ) efficiency based on Islamic banks, with the input variables being operational costs and socialization costs. At the same time, the output variable uses ZISWAF funds received and distributed.

The efficiency assumption model in this study has been carried out in the research of Ilyas,³¹ Kurniawan,³² Burhanudin and Indrarini,³³ Hasan,³⁴

²⁷ Ahmad Yunani et al., "Efficiency of Zakat Management Organization (OPZ) Bank Syariah: Data Envelopment Analysis Approach," *Hamdard Islamicus*, vol. 43, no. 1 (2020), pp. 221–231.

²⁸ Al-Ayubi, Ascarya, and Possumah, "Examining the Efficiency of Zakat Management: Indonesian Zakat Institutions Experiences."

²⁹ Samantha Estrada, "Qualitative Analysis Using R: A Free Analytic Tool," *Qualitative Report*, vol. 22, no. 4 (2017), pp. 956–968.

³⁰ Nasher Akbar, "Analisis Efisiensi Organisasi Pengelola Zakat Nasional Dengan Pendekatan Data Envelopment Analysis," *TAZKIA Islamic Finance & Business Review*, vol. 4, no. 2 (2009), pp. 760–784.

³¹ Rahmat Ilyas, "Manajemen Permodalan Bank Syariah," *Jurnal Bisnis dan Manajemen Islam*, vol. 5, no. 2 (2017), pp. 323–338.

³² R Kurniawan, "Determinants Of Efficiency Of Zakat Institutions In Indonesia: Two-Stage Data Envelopment Analysis Approach," *International Conference Of Zakat* (2018).

³³ Muhammad Burhanudin and Rachma Indrarini, "Efisiensi Dan Efektivitas Lembaga Amil Zakat Nasional," *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, vol. 3, no. 2 (2020), pp. 453–461.

³⁴ Hazriah Hasan et al., "Waqf Efficiency: CRS, VRS and Malmquist Total Factor Productivity Index via Data Envelopment Analysis (DEA)," *International Journal of Innovation, Creativity and Change*, vol. 10, no. 10 (2020), pp. 71–83. but would also become the user of the Islamic financial services particularly in the management and investment of the Waqf funds. This

Maulana and Fanani³⁵ and Jamali.³⁶ Efficiency analysis compares input and output for each unit or Decision-Making Unit (DMU). This analysis measures how inputs can produce outcomes optimally. The level of efficiency in front of several input and output factors which are formulated as:

$$\text{Efficiency} = \frac{\text{weighted sum of outputs}}{\text{weighted sum of inputs.}}$$

Result and Discussions

Table 1 shows that the total funds collected increased in 2016 by Rp. 96,031,627,813, while in 2017, it was Rp. 185,536,519,478. The same increase was in the distribution of funds in 2016 of Rp. 54,746,740,168 and in 2017 of Rp. 175,705,178,552. While operational costs decreased in 2016 by Rp 4,558,379,519 and in 2017 by Rp 4,064,307,891. The decrease in operational costs is thought to be caused by the better performance of amilin in the production function of Islamic banks' OPZ. in line with operational costs, socialization costs also decreased, namely in 2016 of Rp. 490,556,651 and 2017 of Rp. 193,015,461.

The data on the average input and output of Islamic banks' LAZ, which has been analyzed covering DMU BMM and BSMU in the 2016 and 2017 research periods (table 1), shows that inputs grew by 93%. Meanwhile, output also grew by 68%. In other words, it can be concluded that BMM and BSMU show an increase in performance both in terms of input and output. The increase in the performance of the two Islamic banks Lyss is thought to be in line with the rise in the financial performance of Islamic banks. In addition, the most considerable ZIS input comes from bank zakat, zakat from bank employees. Furthermore, it is also suspected that public awareness is channelling their ZIS funds through Islamic banks.

study aimed to measure efficiency scores on two states of Kelantan and Penang that managed Waqf funds by its State Islamic Religion Councils (SIRCs

³⁵ Ahmad Maulana and Sunan Fanani, "Efficiency of National Zakat Institutions on Increasing Muzakki from 2015-2016," *Opcion*, vol. 36, no. SpecialEdition27 (2020), pp. 950-964.

³⁶ Hisnol Jamali, "Banking Governance, Financial Performance and Corporate Social Responsibility," *Jurnal Manajemen*, vol. 24, no. 3 (2020), p. 497.

Table 1. Average input and output of Islamic Bank LAZ

Variable	2016	2017	Growth
	Number	Number	
Funds raised	Rp. 96.031.627.813	Rp. 185.536.519.478	93%
Funds disbursed	Rp. 54.746.740.168	Rp. 175.705.178.552	68%
Operating costs	Rp. 4.558.379.519	Rp. 4.064.307.891	10%
ziswaf socialization costs	Rp. 490.556.651	Rp. 193.015.461	61%
Fixed assets			
Current asset			

Source: secondary data, 2020 (processed by the author)

Table 2 efficiency test using Warwick Win Data Envelopment Analysis (DEA) software obtained a perfect score of 100%, which includes Constant Return to Scale (CRS) and Variable Return to Scale (VRS). This means that the LAZ of Islamic banks, both BMM and BSMU, has a very efficient value with a score of 100%.

Table 2. The efficiency of BMM and BSMU with Production, Intermediation, and Asset Approaches

DMU			BMM	BSM
Production Approach	Input	CRS	100,00	100,00
	Output	CRS	100,00	100,00
	Input	VRS	100,00	100,00
	Output	VRS	100,00	100,00
Intermediation Approach	Input	CRS	100,00	100,00
	Output	CRS	100,00	100,00
	Input	VRS	100,00	100,00
	Output	VRS	100,00	100,00
Asset Approach	Input	CRS	77,90	100,00
	Output	CRS	100,00	100,00
	Input	VRS	90,40	100,00
	Output	VRS	86,20	100,00

Source: Processing results with Warwick win DEA

LAZ Efficiency Analysis of Islamic Banks Production Approach

The DEA LAZ BMM test results obtained an efficient value of 100% (table 2). That is, the actual score is the same as the target score of all

variables. In other words, the use of input variables is proportional to the output obtained. Thus, this finding indicates that the production variable in OPZ BMM has a good level of efficiency.

Table 3. The efficiency of Baitulmal Muamalat (BMM)

Variable	Actual	Target	To Gain	Achieved
Operating costs	3154629984	3154629984	0.0%	100%
ZISWAF socialization costs	172699000	172699000	0.0%	100%
Ziswaf funds received	32771370911	32771370911	0.0%	100%
Distributed Ziswaf Funds	26366281438	26366281438	0.0%	100%

Source: Processed with Warwick win DEA

The results of the Warwick Win Data Envelopment Analysis (DEA) calculation show that the Zakat Management Organization (OPZ) of Bank Syariah Mandiri Ummah (BSMU) is at an efficient score (table 4). BSMU efficiency reaches a maximum score of 100%, meaning all variables have the same actual value as the target value. In other words, the use of input variables is proportional to the output obtained. Thus, this finding indicates that the production variable in the OPZ BSMU has a good level of efficiency.

Table 4. Efficiency of Bank Syariah Mandiri Ummah (BSMU)

Variable	Actual	Target	To Gain	Achieved
Operating costs	1403749535	1403749535	0.0%	100%
ZISWAF socialization fee	317857651	317857651	0.0%	100%
Ziswaf funds received	3260256902	3260256902	0.0%	100%
Distributed Ziswaf Funds	28380458730	28380458730	0.0%	100%

Source: Processed with Warwick win DEA

Analysis of Islamic Bank LAZ Efficiency Intermediation Approach

The value of efficiency can be achieved if the output produced is proportional to the input used. Table 5 shows that LAZ Baitulmal Muamalat

(BMM) is at an efficient score. In the intermediation approach, the efficiency level reaches 100%, which indicates that the performance of fund distribution at LAZ BMM is going well. These results support the findings of Al-Ayubi, Ascarya and Possumah (2018), who also analyzed OPZ in Islamic banks, that zakat institutions in the banking environment tend to minimize inputs to achieve maximum output. Because the zakat collected comes from customers to employees, it reduces the cost of socialization.

Table 5. The efficiency of Baitulmal Muamalat (BMM)

Variable	Actual	Target	To Gain	Achieved
Operating costs	3154629984	3154629984	0.0%	100%
ZISWAF socialization costs	172699000	172699000	0.0%	100%
Ziswaf funds received	32771370911	32771370911	0.0%	100%
Distributed Ziswaf Funds	26366281438	26366281438	0.0%	100%

Source: Processing results with Warwick win DEA

In the BSMU efficiency test with an intermediation approach and through an efficiency test with the Warwick Win DEA software application, Table 6 shows that each model, both CRS and VRS at BSMU, achieves optimal results, namely 100%. This indicates that the input variable used is proportional to the output gain.

Table 6. Efficiency of Bank Syariah Mandiri Ummah (BSMU)

Variable	Actual	Target	To Gain	Achieved
Operating costs	1403749535	1403749535	0.0%	100%
ZISWAF socialization fee	317857651	317857651	0.0%	100%
Ziswaf funds received	3260256902	3260256902	0.0%	100%
Distributed Ziswaf Funds	28380458730	28380458730	0.0%	100%

Source: Processing results with Warwick win DEA

Analysis of Islamic Bank LAZ Efficiency Asset Approach

In contrast to the intermediation approach, which achieves 100% efficiency, the efficiency results through the asset approach show efficiency of <100%. This happened in 2016 DMU, LAZ BMM still showed an efficient value but not optimally. It can be seen that the input-output variable achieves an efficiency value of 90.4% and 86.2%, respectively. This figure still shows the efficient value, although not optimally. There are not many studies that measure efficiency using the asset approach. The measurement of efficiency on assets focuses more on asset quality which aims to maintain LAZ's financial performance.

Table 7. Baitulmal Muamalat (BMM) Efficiency

Variable	Actual	Target	To Gain	Achieved
Fixed assets	4124951584	3727827620	9.6%	90.4%
Current asset	65561196875	76027941094	16.0%	86.2%

Source: Processing results with Warwick win DEA

The criteria for a LAZ are called efficient if it meets the requirements to reach 100%. On the other hand, if you stay away from 100% or close to 0%, the OPZ's performance is considered inefficient or inefficient. In the BSMU efficiency test with the intermediation approach, input variables are added in personnel costs and socialization costs. After going through an efficiency test with the Warwick Win DEA software application, Table 2 shows that each model, CRS and VRS at BSMU, achieves optimal results, namely 100%. Table 8 can illustrate that the asset quality at BSMU is excellent, with an optimal efficiency value of 100%.

Table 8. Baitulmal Muamalat (BMM) Efficiency

Variable	Actual	Target	To Gain	Achieved
Fixed assets	3727827620	3727827620	0.0%	100%
Current asset	76027941094	76027941094	0.0%	100%

Source: Processing results with Warwick win DEA

Discussion

The results of the efficiency test on the Zakat Management Organization (OPZ) of Islamic banks with a production approach show the efficient performance of Baitulmal Bank Muamalat (BMM) Indonesia and BSM Ummah (BSMU). As an OPZ based on State-Owned Enterprises (BUMN), BSMU can demonstrate efficient performance in its social functions as mandated by the sharia banking law. Likewise, Baitulmal Bank Muamalat (BMM) Indonesia, as an OPZ based on sharia banks, shows efficient performance.

This finding supports and strengthens previous research conducted by Kurniawan³⁷ and Akbar³⁸ and which states that banking OPZs, in particular, provide scale efficiency advantages compared to other OPZs, this is due to the minimal input mechanism but produces maximum output, such as collecting Ziswa funds from bank zakat, zakat from customers and the general public, and zakat from bank employees, infaq and alms funds to reduce one of the expenses, namely the cost of socialization.

This finding also supports research conducted by Al-Ayubi, Ascarya, and Possumah,³⁹ which states that OPZs that grow and develop in the corporate (banking) environment tend to be more efficient than other OPZs. The underlying reason for this phenomenon may be the salary reduction system, which reduces the pressure to raise ZIS funds.

The differences in the efficiency of banking corporation-based OPZ with other based OPZs are mostly seen from the aspect of high output costs such as socialization costs, operational costs and personnel costs. Wahyuni's findings⁴⁰ confirmed that in the BAZNAS case, there was inefficiency due to increased operating costs and personnel costs. This is different from the results of Lestari,⁴¹

³⁷ Rizki Kurniawan, "Determinants of Efficiency of Zakat Institutions in Indonesia: Two-Stage Data Envelopment Analysis Approach," in *International Conference of Zakat*, (2018).

³⁸ Akbar, "Analisis Efisiensi Organisasi Pengelola Zakat Nasional Dengan Pendekatan Data Envelopment Analysis."

³⁹ Al-Ayubi, Ascarya, and Possumah, "Examining the Efficiency of Zakat Management: Indonesian Zakat Institutions Experiences."

⁴⁰ Wahyuni, "Efisiensi Organisasi Pengelola Zakat Nasional Dengan Metode Data Envelopment Analysis."

⁴¹ A. Lestari, "Efisiensi Kinerja Keuangan Badan Amil Zakat

which explains that BAZDA has an efficiency level of 100% with the assumption of Constant Return to Scale (CRS).

The findings of Rustyani, Rosyidi, and Airlangga⁴² explain that civil-based OPZs have a good level of efficiency, although their productivity has decreased during the research period. In contrast to the findings of Ma'in and Ahmad,⁴³ who revealed that zakat institutions in Selangor, Malaysia, show that the distribution of OPZ funds each year is more efficient in performance than the performance of fundraising.

OPZ's financial performance, including efficiency, is heavily influenced by other factors such as the manager or the amilin. The findings of Nasri, Ani, and fawzi⁴⁴ confirm this by concluding that professionalism and transparency in zakat management have a positive and significant impact on financial performance. In summary, this research shows that zakat institutions should increase their transparency and professionalism to improve their financial performance in the future. Likewise, the findings of Wahab and Rahman⁴⁵ reveal factors that significantly affect efficiency in Malaysian zakat institutions, including the zakat payment system, computerized zakat system, board size, audit committee and decentralization.

Conclusion

This study examines the efficiency level of Islamic bank-based Zakat Management

Organizations (OPZ) in Indonesia in 2016-2017 using the Data Envelopment Analysis (DEA) production approach. Baitulmal Bank Muamalat (BMM) Indonesia and BSM Ummah (BSMU) were selected as research samples that provide data for the period of this study. The results of this study indicate that all OPZ based on Islamic banks have efficient performance with a value of 100% both on the assumption of Constant Return to Scale (CRS) and Variable Return to Scale (VRS).

Based on the findings and analysis in this study, OPZ management plays an essential role in managing social funds in professional and transparent ZISWAF financial performance reporting. This is in line with Islamic bank OPZ in meeting the reporting standards set out in the Act on the management of zakat institutions.

Recommendations

The uniqueness and difference of this research with previous research focus on Islamic bank-based OPZ, a financial institution that also functions to collect and distribute ZISWA funds. However, the authors realize that the main limitation of this study is the amount of data used. The broader use of data and involving OPZ outside Indonesia is expected to produce more representative reality results. Researchers recommend further research to add approaches such as intermediation and assets.

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⁴² Rustyani and Rosyidi, "Measurement of Efficiency and Productivity of Zakat Institutions in Indonesia Using Data Envelopment Analysis and the Malmquist Productivity Index."

⁴³ Ismail HJ Ahmad and Masturah Ma'in, "The Efficiency of Zakat Collection and Distribution: Evidence from Two Stage Analysis," *Journal of Economic Cooperation and Development*, vol. 3, no. 35 (2014), pp. 133-169.

⁴⁴ Rifzaldi Nasri, Nur Aeni, And Marissa Grace Haque-Fawzi, "Determination Of Professionalism And Transparency And Its Implications For The Financial Performance Of Zakat Institutions," *Journal Of Islamic Monetary Economics And Finance*, vol. 5, no. 4 (2019), pp. 785-806.

⁴⁵ Norazlina Abd Wahab and Abdul Rahim Abdul Rahman, "Determinants of Efficiency of Zakat Institutions in Malaysia: A Non-Parametric Approach," *Asian Journal of Business and Accounting*, vol. 6, no. 2 (2013), pp. 33-64. such zakat institutions are State Islamic Religious Councils (SIRCs

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