

Analysis of the Performance Efficiency of Zakat Management Institutions Using Data Envelopment Analysis: Study at LAZ Harfa Banten 2017-2020

Arif Rohmatullah¹

¹State Islamic University of Sultan Maulana Hasanuddin Banten

The potential for collecting zakat in Indonesia is very high because the majority of the people are Muslims. However, the realization of zakat collection in Indonesia that has been collected by zakat management institutions, both BAZ and LAZ, is still far from the assumed amount. Zakat management institutions have an important role to collect, manage and distribute zakat. Therefore efficiency is needed by zakat management institutions in order to maximize zakat management. This study aims to analyze the level of performance efficiency of Zakat Management Institutions, especially LAZ Harfa Banten using *data envelopment analysis* (DEA) in the 2017-2020 period. Results of data analysis using *software* MaxDEA Basic 8 shows that in 2017 and 2020 LAZ Harfa Banten experienced perfect efficiency with a score of 100% or had an efficiency score of 1. Meanwhile in 2018 and 2019 LAZ Harfa Banten experienced inefficiency, namely in 2018 with an efficiency score of 94.94% and in 2019 the efficiency value was 83.56%. Inefficiency occurs because the input variable whose actual value is not in accordance with the DEA calculation target, namely total assets. Meanwhile, the output variables, namely the amount of zakat receipts and the amount of zakat distribution, both experience inefficiency because the actual value and target value are not appropriate or balanced.

OPEN ACCESS

*Correspondence:

Arif Rohmatullah
arifrohmatullah26@gmail.com

Received: 19 October 2022

Accepted: 9 November 2022

Published: 30 December 2022

Citation:

(2022) Analysis of the Performance Efficiency of Zakat Management Institutions Using the Data Envelopment Analysis: Study at LAZ Harfa Banten Period 2017-2020 Faraid & Wealth Management 2.2.

Keywords: Data Envelopment Analysis; Efficiency; Zakat.

INTRODUCTION

Zakat is property that must be paid by Muslims who have reached *nisab*-her. People who pay zakat, their wealth will develop and provide benefits for eight groups of zakat recipients. Zakat is also one of the obligations in the pillars of Islam (Hujjatul Maryam, 2018). Zakat has an important role in alleviating poverty in society which has been a problem that has not been resolved by many countries, one of which is Indonesia.

According to the Central Bureau of Statistics (2021), the poverty rate in Indonesia in March 2021 was

10.14% or 27.54 million people. The high poverty rate in Indonesia spreads to almost all existing provinces, Banten Province is no exception. In Banten Province there are still many people living below the poverty line who are scattered in various cities/regencies, although the numbers tend to decrease in the period 2017 to 2019, then increase in 2020. This is a problem that needs to be resolved so that people can live in prosperity. The following is the poverty rate in Banten Province based on the classification of districts and cities:

Table 1: Number of Poor Population by District/City in Banten Province

City	Amount of Poor Population (in thousand)			
	2017	2018	2019	2020
Kab Pandeglang	117.31	116.16	114.09	120.44
Kab Lebak	111.08	108.81	107.93	120.83
Kab Tangerang	191.62	190.05	193.97	242.16
Kab Serang	69.10	64.46	61.54	74.80
Kota Tangerang	105.34	103.49	98.37	118.22
Kota Cilegon	14.89	13.96	13.20	16.31
Kota Serang	36.97	36.21	36.21	42.24
Kota Tangerang Selatan	28.73	28.21	29.16	40.99
Province of Banten	675.04	661.36	654.46	775.99

Source: Data processed by the Central Bureau of Statistics

This number, which is still relatively high, must immediately take effective measures to overcome it so that people can escape poverty and live in prosperity. In addition to the local government's role in alleviating poverty, the role of amil zakat institutions at the provincial and district/city levels is also needed to assist the government in alleviating poverty through the management of zakat funds. One of the LAZs that oversees Banten Province is LAZ Harfa, which is a province-scale LAZ. The role of zakat institutions, especially LAZ Harfa Banten in economic activities, especially in the context of alleviating poverty and the welfare of society, is very important. Therefore, efficiency is very important for zakat management entities, both government and private. According to Iskandar in (Rahmawati, 2020) The more efficient the zakat management institution is, the greater the beneficial influence on the collection, management and distribution of zakat. Efficiency of zakat management institutions, namely not exaggerating in spending or costs and being precise in managing the management of

the funds collected. So that it will maximize the collection and distribution of zakat to the community.

Analyzing the efficiency of amil zakat institutions can be achieved by using three methods, namely the ratio approach, the regression approach, and the frontier approach. The ratio approach has limitations, namely that it cannot analyze financial institutions as a whole because they do not consider variables measured from several input and output elements. Meanwhile, the regression equation only contains output, making it difficult to assess efficiency. While the frontier approach, without a normal distribution in the population, any variables in the field can be examined for their level of efficiency (Anggraini, 2017).

In measuring efficiency, the approach commonly used is approach *Data Envelopment Analysis* (DEA). Therefore, in this study using non-parametric methods *Data Envelopment Analysis*. DEA is used to measure the level of performance efficiency of amil zakat institutions, especially at LAZ Harfa Banten.

LITERATURE REVIEW

a. Definition of Zakat

According to the term, zakat is the release of a portion of (certain) property that has been required by Allah SWT to be given to those who are entitled to receive it, at a certain rate, haul, and meet the conditions and pillars. In Surat At-Taubah verse 103, zakat is interpreted as cleansing or purifying. Here is the proof of Q.S At-Taubah: 103.

حُذِّ مِنْ أَمْوَالِهِمْ صَدَقَةً تُطَهِّرُهُمْ وَتُزَكِّيهِمْ بِهَا وَصَلِّ عَلَيْهِمْ إِنَّ
صَلَوَاتَكَ سَكَنٌ لَّهُمْ وَاللَّهُ سَمِيعٌ عَلِيمٌ - ١٠٣

"Take zakat from their wealth, to purify and purify them, and pray for them. Verily your prayer (grows) peace of mind for them. Allah is All-Hearing, All-Knowing."

Zakat based on the four schools of thought defines zakat differently. According to Al-Hanafiyah zakat is the ownership of certain assets from certain assets to people who have been determined by the shariah maker (Allah) by expecting their pleasure. Al-Maliki explained zakat is giving out certain assets from assets that have reached the nisab to mustahik, if the ownership and haul are complete other than mining goods and rice fields.

While Ash-Syaf'iyah defines zakat as the name for something that is issued from property and body in a certain way. While according to Al-Hanabilah, zakat is a right that must be removed from certain property to be given to a certain group at a certain time (Sarwat, 2011).

According to Yusuf Al-Qardawi, quoted in Hannani (2017) states that zakat in terms of fiqh terms, means a certain amount of property that is required by Allah SWT to be handed over to people who are entitled, besides it means issuing a certain amount itself. The amount spent increases, making it more meaningful. Zakat is part of the pillars of Islam which regulates how muzaki assets must be issued (people who are obliged to pay zakat) to mustahik (people who receive zakat).

b. Definition of Efficiency

According to the Big Indonesian Dictionary, efficiency is the determination of how (effort, work) in doing something (without wasting time, effort, costs); usability; usability; skill; the ability to carry out tasks properly and precisely (without wasting time, energy,

costs). Efficiency is defined as the ability to complete a job correctly or in a mathematical view is defined to complete the output and or input or the amount of output resulting from an input used (Sa'diyah, 2016).

Avenzora in Sa'diyah (2016) suggests that, industrial efficiency is to produce maximum output using a certain amount of input, or the ability of an industry to produce a certain amount of output, using a minimum amount of input. Efficiency refers to the relationship between output and input, so efficiency can be defined as the ratio of output to input. The cause of efficiency consists of the following three factors:

- If the same input produces a higher output;
- Can create the same output with small inputs;
- Can produce even greater output with greater input.

RESEARCH METHODS

This research is a descriptive study using a quantitative approach. This approach describes data through numbers and aims to develop and use mathematical models, theories and/or hypotheses related to the phenomenon being investigated (Suryani & Hendrayani, 2015). This study uses a non-parametric method *Data Envelopment Analysis* (DEA). *Data Envelopment Analysis* (DEA) is a mathematical programming technique based on linear programming that determines the efficiency of a decision-making unit (work unit) that is responsible for using input to produce the desired output. DEA was developed as a tool to evaluate the performance of an activity within an entity unit (organization), hereinafter referred to as a decision-making unit or DMU (Filardo dkk, 2017).

This study uses a production approach in analyzing data using DEA to assess how well the amil zakat institution performs, in managing costs to realize efficient zakat receipts and distribution. The variables used in this study are divided into two variables, namely input variables and output variables. The input variables used are total assets and operational costs. While the output variable used is the receipt and distribution of zakat funds at LAZ Harfa Banten.

RESULTS AND DISCUSSION

Based on the results of the analysis of measuring the efficiency level of LAZ Harfa Banten by using *software* MaxDEA Basic 8, through a production approach using assumptions *Variable Return To Scale* (VRS), based on output orientation / *output oriented*. Then it can be seen the efficiency level of LAZ Harfa Banten in the 2017-2020 period, in the following table:

Table 2: Efficiency Level of LAZ Harfa Banten

Year	Efficiency Score
2017	100 %
2018	94,94 %
2019	83,56 %
2020	100 %

Source: MaxDEA data processing

From the results of the DEA analysis, the efficiency of LAZ Harfa Banten for these four years (2017-2020), shows the results of maximum/perfect efficiency levels or having good performance of 100% in 2017 and 2020. Meanwhile, LAZ Harfa Banten does not experienced perfect efficiency (inefficiency) in 2018 with an efficiency level of 94.94%, and in 2019 it was 83.56%.

a) Technical Analysis of LAZ Harfa Banten Efficiency 2017

LAZ Harfa Banten in 2017 has achieved a perfect efficiency value or 100 percent. This maximum efficiency value indicates that LAZ Harfa Banten can get maximum results from the existing inputs. Details of the achievement of efficiency can be seen from each of the following variables:

Table 2: 2017 LAZ Harfa Banten Efficiency Targets

Variable	Actual (Rp)	Target (Rp)	To Gain	Achieved
Total Asset	2.785.346.902	2.785.346.902	0,0%	100%
Operating cost	982.620.293	982.620.293	0,0%	100%
Collection fund	765.929.144	765.929.144	0,0%	100%
Allocation fund	794.741.483	794.741.483	0,0%	100%

Source: MaxDEA Data Processing

Based on the table above, it shows that the results of the efficiency analysis of LAZ Harfa Banten in 2017 show that for all input and output variables, the efficiency level reached 100 percent. This shows that LAZ Harfa Banten, is able to achieve the actual value (actual value) with the target (value to be achieved) suggested by the DEA. This proof can be seen in the value to gain 0%, which indicates that there is no actual value that is less than the target value.

b) Technical Analysis of LAZ Harfa Banten Efficiency 2018

LAZ Harfa Banten in 2018 has not achieved perfect efficiency (inefficiency). The efficiency value obtained was 94.94 percent. This efficiency value that has not been maximized states that LAZ Harfa Banten has made an inefficiency of 5.06 percent. From this value, it shows that LAZ Harfa Banten has not been efficient in carrying out its performance. In order to achieve the maximum efficiency value, it is necessary to look at the details of each of the following variables:

Table 3: 2018 LAZ Harfa Banten Efficiency Targets

Variable	Actual (Rp)	Target (Rp)	To Gain	Achieved
Total Asset	3.941.970.633	3.266.013.034	17%	83%
Operating cost	1.464.186.410	1.464.186.410	0,0%	100%
Collection fund	896.507.686	983.550.746	10%	90%
Allocation fund	955.333.563	1.006.257.986	5%	95%

Sumber: Olah Data DaxDEA

Based on the table, it shows that the findings of the efficiency analysis of LAZ Harfa Banten in 2018 show that the total asset variable efficiency level reaches 83%. To increase the efficiency of LAZ Harfa Banten in 2018, the target is Rp. 3,266,013,034 can be made on the input side where the current actual value is Rp. 3,941,970,633. This means that if the total assets are reduced by 17%, the current actual conditions can reach the target. Meanwhile, the operational cost variable is not a problem because the target has been reached by 100%.

Furthermore, the output position shows inefficiency in both variables. Determination of the target of collecting zakat of Rp. 983,550,746 which is currently Rp. 896,507,686, so it is necessary to increase the collection of zakat funds by 10% to achieve maximum efficiency. Meanwhile, setting the target of channeled zakat funds amounting to Rp. 1,006,257,986 which currently has an actual value of Rp. 955,333,563, so you have to increase the zakat funds distributed by

5% to reach the LAZ Harfa Banten efficiency point in 2018. Even though in 2018 the zakat funds distributed were greater than the zakat funds collected so that they used the initial balance of the previous year's zakat funds, still distribution must be increased to reach an efficient point.

c) Technical Analysis of LAZ Harfa Banten Efficiency 2019

LAZ Harfa Banten in 2019 has not achieved perfect efficiency (inefficiency). The efficiency value obtained was 83.56 percent. This efficiency value that has not been maximized states that LAZ Harfa Banten has produced an inefficiency of 16.44 percent. This shows that LAZ Harfa Banten has not been efficient in carrying out its performance. In order to achieve the maximum efficiency value, it is necessary to look at the details of each of the following variables:

Table 4: LAZ Harfa Banten Efficiency Targets 2019

Variable	Actual (Rp)	Target (Rp)	To Gain	Achieved
Total Asset	5.297.726.326	4.444.194.522	16%	84%
Operating cost	2.644.573.891	2.644.573.891	0,0%	100%
Collection fund	1.267.556.235	1.516.972.442	20%	80%
Allocation fund	1.267.216.813	1.524.715.209	20%	80%

Source: MaxDEA Data Processing

The table shows that the findings of the efficiency analysis of LAZ Harfa Banten in 2019 show that the total asset variable efficiency level reaches 84%. To increase the efficiency of LAZ Harfa Banten in 2019,

setting a target of Rp. 4,444,194,522 can be made on the input side where the current actual value is Rp. 5,297,726,326. meaning that if the total assets are reduced by 16%, the current actual conditions can reach

the target. Meanwhile, the operational cost variable is not a problem because the target has been reached by 100%.

Furthermore, the output position shows inefficiency in both variables. Determination of the target of collecting zakat of Rp. 1,516,972,442 which is currently Rp. 1,267,556,235, so it is necessary to increase the collection of zakat funds by 20% to achieve maximum efficiency. Meanwhile, setting the target of channeled zakat funds amounting to Rp. 1,524,715,209 which currently has an actual value of Rp. 1,267,216,813, so you have to increase the zakat funds distributed by

20% to reach the LAZ Harfa Banten efficiency point in 2019.

d) Technical Analysis of the Efficiency of LAZ Harfa Banten 2020

LAZ Harfa Banten in 2020 has achieved a perfect efficiency value or 100 percent. This maximum efficiency value indicates that LAZ Harfa Banten can get maximum results from the existing inputs. The details of achieving efficiency can be seen from each of the following variables:

Table 5: LAZ Harfa Banten Efficiency Targets 2020

Variabel	Aktual (Rp)	Target (Rp)	To Gain	Achieved
Total Asset	5.042.852.886	5.042.852.886	0,0%	100%
Operating cost	3.244.353.165	3.244.353.165	0,0%	100%
Collection fund	1.788.015.030	1.788.015.030	0,0%	100%
Allocation fund	1.788.154.039	1.788.154.039	0,0%	100%

Source: MaxDEA Data Processing

Based on the table above, it shows that the results of the efficiency analysis of LAZ Harfa Banten in 2020 show that for all input and output variables, the efficiency level reaches 100 percent. This shows that LAZ Harfa Banten, is able to achieve the actual value (actual value) with the target (value to be achieved) suggested by the DEA. This proof can be seen in the value *to gain* 0%, which indicates that there is no actual value that is less than the target value.

Based on the results of the analysis of the efficiency of LAZ Harfa Banten in the 2017-2020 period. Maximum efficiency or achieving a score of 100% only occurred in 2017 and 2020. This shows that LAZ Harfa Banten has performed well during those years. Meanwhile, in 2018 and 2019 LAZ Harfa Banten experienced inefficiencies with an efficiency score of 94.94% in 2018 and 83.56% in 2019. During this observation period, the lowest efficiency score occurred in 2019 due to various factors.

The factors that cause inefficiency in 2018 and 2019 are because the input and output variables' actual values do not match the target values suggested by the DEA. The variables that cause inefficiency in that year are the asset values in the input variables. Meanwhile in the

output variable, the two variables, namely the receipt of zakat and the distribution of zakat, are the cause of inefficiency.

This inefficiency occurs because the use of assets is not optimal so it is not effective and productive. Furthermore, the output variables, in the collection and distribution of zakat funds, are both the causes of LAZ Harfa Banten experiencing inefficiency, because the amount of zakat collection has not been able to optimize the potential of existing zakat, so it is necessary to increase zakat collection in order to reach the maximum efficiency point suggested by DEA. As for the distribution of zakat funds, it also experiences inefficiencies so that in order to reach the point of efficiency, it is necessary to increase the amount of distribution of zakat funds to reach the efficient point suggested by the DEA.

Based on this, it can be concluded that the causes of inefficiency or inefficiency in LAZ Harfa Banten in 2018 and 2019 were caused by the inefficient use of one input and two outputs. Therefore, it is necessary to improve the input and output variables that experience inefficiency so that they adjust to the targets suggested by DEA to achieve efficiency targets.

CONCLUSION

Based on the results of the research on the efficiency level of LAZ Harfa Banten for the 2017-2020 period, the conclusion states that in 2017 and 2020, it shows that the efficiency level of LAZ Harfa Banten is 100% or has a score of one. This shows that LAZ Harfa Banten has been maximally efficient or has a perfect score in those two years. This is evidenced by numbers to *Gain* of 0 percent, which means that the efficiency target value is in accordance with the existing value or in accordance with the actual conditions. Whereas in 2018 and 2019, LAZ Harfa Banten experienced inefficiencies with efficiency scores of 94.94% and 83.56%, respectively.

The inefficiencies that occurred in 2018 and 2019 were caused by one input variable and two output variables, which were not in accordance with the DEA calculation target. The input variable is the total assets that are not used effectively so that they do not meet the target suggested by the DEA. Meanwhile, the output variables, namely the collection and distribution of zakat funds, both still produce output that has not been maximized. So that the receipt of zakat needs to be increased so that the distribution of zakat also increases according to the DEA target. For future research, LAZ Harfa's performance measurement study can measure productivity performance, for example by using the Malmquist Productivity Index method (Rusydziana, 2018; Marlina et al., 2018, Rani et al., 2017).

REFERENCES

- Anggraini, Ully, "Efisiensi Pengelolaan Zakat Dengan Pendekatan Data Envelopment Analysis: Studi Kasus Pada Organisasi Pengelola Zakat Nasional" (Skripsi Pada Fakultas Ekonomika dan Bisnis Universitas Diponegoro Semarang, 2017)
- Badan Pusat Statistik, "Persentase Penduduk Miskin Maret 2021 Turun Menjadi 10,14 Persen" <https://www.bps.go.id/>, diakses pada 07 Januari 2021, Pukul 21.30 WIB.
- Filardo, Andrew, dkk., "Penerapan Data Envelopment Analysis Dalam Pengukuran Efisiensi Retailer Produk Kendaraan Merek Toyota", Jurnal Sains dan Seni, Vol. 6, No. 1 (2017).
- Hannani, *Zakat Profesi dalam Tataran Teoritik dan Praktik*, (Yogyakarta: Trush Media Publishing, 2017).
- Ivonella S, Atika, "Analisis Efisiensi Kinerja Bada Amil Zakat Nasional (BAZNAS) Kota Yogyakarta Dengan Menggunakan Metode Data Envelopment Analysis (DEA)" (Skripsi Pada Fakultas Ekonomi Universitas Islam Indonesia, Yogyakarta, 2018).
- Kamus Besar Bahasa Indonesia, "Efisiensi", <https://kbbi.kemdikbud.go.id> diakses pada 07 Januari 2022, pada pukul 20.00 WIB.
- Kementrian Agama RI, Panduan Zakat Praktis, <https://jatim.kemenag.go.id/file/file/pdf/urev1425010734.pdf>, diunduh pada 18 Januari 2021, pukul 10.30 WIB.
- Kementerian Agama RI, *Al-Qur'an dan Terjemahnya*, (Bogor: Unit Percetakan Al-Qur'an, 2019).
- Marlina, L., Rusydziana, A. S., & Otoillah, M. A. (2018). Malmquist index to measure the efficiency and productivity of Indonesia Islamic banks. In *2nd ICIFEB 2018 International Conference on Islamic Finance Economics and Business UIN Syarif Hidayatullah Jakarta*. State Islamic University Syarif Hidayatulloh Jakarta.
- Maryam, Hujjatul. "Analisis Efisiensi Kinerja Lembaga Zakat Nasional Di Indonesia Studi Kasus: Baznas dan Rumah Zakat 2014-2016" (Skripsi pada Fakultas Ekonomi dan Bisnis UIN Syarif Hidayatullah Jakarta, 2018).
- Rahmawati, Desy, "Analisis Efisiensi Organisasi Pengelola Zakat Nasional Dengan Pendekatan Data Envelopment Analysis (DEA)", (Disertasi Pada Sekolah Pascasarjana Universitas Muhammadiyah Surakarta, 2020).
- Rani, L., Rusydziana, A., & Widiastuti, T. (2017, November). Comparative analysis of Islamic bank's productivity and conventional bank's in Indonesia period 2008-2016. In *1st International Conference on Islamic Economics, Business and Philanthropy (ICIEBP 2017)* (pp. 118-123).
- Rusydziana, A. S. (2018). Perubahan Teknologi dan Efisiensi pada Organisasi Pengelola Zakat di Indonesia. *Liquidity: Jurnal Riset Akuntansi dan Manajemen*, 7(2), 124-136.
- Sa'diyah, Nur Halimatu, "Analisis Efisiensi Menggunakan Metode Data Envelopment Analysis (DEA): Kasus Pada PT. Indonesia Toray Synthetic", Pada SAINS: Jurnal Manajemen dan Bisnis, Vol IX, No. 1, (Desember 2016).
- Sarwat, Ahmad, *Seri Fiqih Kehidupan (4): Zakat*, (DU Publishing: Jakarta, 2011).
- Suryani & Hendrayani, *Metode Riset Kuantitatif: Teori dan Aplikasi Pada Penelitian Bidang Manajemen dan Ekonomi Islam*, (Jakarta: Prenadamedia Group, 2015).

