

Conference Paper

The Efficiency Measurement of National Board of Zakat in West Java

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Abstract

This study aims to determine and measure the efficiency of BAZNAS regency/city in West Java. The method used in this study is descriptive-comparative. The population of this study is BAZNAS regency/city in West Java province with a total sample of eleven regency/city in West Java during nine year (2010-2018) period. The data was analyzed using Data Envelopment Analysis (DEA). The results indicated that there are 3 Decision Making Unit (DMU) that are efficient (100%) and inefficiency as much as 53 Decision Making Unit (DMU). Bekasi City and Kuningan Regency are two zakat institutions that are capable of achieving full efficiency. This means that the majority of Baznas regency/city in West Java still have not achieved efficiency. Insights from this research to improve the efficiency of zakat institutions, it must increase the input (zakat collection) and the operational professionalism of zakat institutions.

Keywords: Efficiency, National Board of Zakat, Data Envelopment Analysis

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1. Introduction

The unachieved of zakat potential in Indonesia is due to the dissatisfaction of muzakki in using BAZNAS services as a means of distributing their assets, giving rise to a behavior in which 44% of *muzakki* (the party who are obliged to pay zakat) choose to distribute their zakat individually (Uzaifah, 2007).

The increase of zakat collection in the period of 13 years amounted to 5310.15 percent. In 2002 to 2015, the growth in the increase in the collection of zakat, infaq and alms (ZIS) funds reached an average of 39.28 percent. This indicates that there is a high increase in public awareness to pay zakat through official zakat institutions. The high gap between potential and realization of ZIS collection is considered reasonable because of the low level of public trust and not all zakat institutions in Indonesia have transparent and periodically audited financial statements. This issues has an impact on the weakening of public trust, even if it is a fairly credible institution or legal zakat institution (Mintarti, 2011).

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In addition, this proves that there are inefficiencies in zakat institutions. Inefficiency of zakat institution in Indonesia in collecting and distributing zakat occur for several reasons, such as the regulation of zakat which is not required by law, from the viewpoint of muzakki still exist that distribute zakat directly to mustahik or through an unofficial zakat institution and public confidence to the zakat institution is still low.

According to the PIRAC survey, the level of public trust in zakat institutions in 2004 was only 15% (Abidin, 2008). In addition, Zamil & Rahman (2006) stated that not only in Indonesia, but in Malaysia which is the driving factor for the high participation in paying zakat are facility, transparency and efficiency of the zakat institution in the collection and distribution.

National Board of Zakat (BAZNAS) as a government zakat institution only manages 50 billion rupiah of funds, far below the private zakat institutions which mostly target the corporate sector.

TABLE 1: Total of Managed Zakat Funds Based on Zakat Institutions.

Institution	Managed Fund (IDR Billion)
Dompot Dhuafa	202
Rumah Zakat	146
PKPU	107
YBM BRI	57
BAZNAS	50
Lazis Nahdlatul Ulama	0,6

Source: Tempo (2014)

Based on Table 1, the performance of zakat institutions, both government and private institution, becomes an issue that needs to be investigated. Thus, the most important thing is how zakat institutions can manage their funds so that they can achieve optimal levels of efficiency (Noor & et al., 2012).

Based on the problems mentioned above, some of the most important indications and need to be solved is the evaluation of the performance of zakat institutions with a focus on discussion on the level of efficiency. To evaluate the performance of an institution in terms of its efficiency, it can use the Data Envelopment Analysis (DEA) method.

According to Farrell, efficiency in a company is related to how to produce a maximum level of output with a certain number of inputs (Firdaus & Hosen, 2013). Generally,

efficiency is the ability of a business unit to reach the target by using the minimum available resources (Martić, Novaković, & Baggia, 2009).

Islam has its views regarding to concept of efficiency based on QS. Al-Israa: 26-27. Production efficiency in Islam can be done with two approaches. First by minimizing costs, it can be done by reducing the total cost but the output of the product produced remains the same. Then the second approach is the optimization of production without any increase or change in total cost (Karim, 2015).

Research on efficiency at the zakat institution has been carried out by several researchers. Including by Wahab (2012) and (2013), Noor (2012) and (2012) and also been examined by Ahmad (2014), but all of the research was conducted in Malaysia. While in Indonesia, the efficiency research using the Data Envelopment Analysis (DEA) method on zakat institutions still few. The previous research as reference in measuring the efficiency in zakat institutions is done by Parisi (2017) as the first researcher in Indonesia relating to efficiency in zakat institution and Wahab & Raman (2012) who examined the efficiency of zakat institutions in Malaysia.

Previous research conducted by Cahyono (2015) on the efficiency of the performance of the National Board of Zakat (BAZNAS) in Indonesia using the Data Envelopment Analysis (DEA) approach, which measures the ratio of the ratio between output and input compared between the years studied. The results indicate that from the year period examined by the National Board of Zakat (BAZNAS) fluctuated in the efficiency of its performance. Then Rusydiana & Farisi (2016) examined the efficiency of BAZNAS, PKPU, and Rumah Zakat (RZ) with varying years. The results of this study were 12 Decision Making Unit (DMU) that were perfectly efficient (100%) and inefficient as many as 6 DMUs. The most inefficient zakat institution is Rumah Zakat (2013), and PKPU is able to maintain its efficiency level gradually from 2007 to 2014 (except 2013) when compared to other zakat institution.

Thus this study aims to determine and measure the efficiency of BAZNAS regency/city in West Java during the period 2010 – 2018.

2. Literature Review

2.1. The concept of efficiency theory

The concept of efficiency comes from the micro-economic concept, namely the producer theory. This theory tries to maximize profits or minimize costs from the producer's perspective. In the producer theory there is a production frontier curve that

describes the relationship between input and output of the production process. This curve represents the maximum level of output for each use of input that represents the use of technology from a company or industry (Ascarya & Yumanta, Analisis Efisiensi Perbankan Syariah di Indonesia dengan Data Envelopment Analysis", 2006).

Ascarya et al. (2008) explained that the frontier approach is superior because the use of program techniques or statistics that eliminate the influence of differences in input prices and other exogenous factors in influencing the performance to be observed. The frontier approach is divided into two types, there are parametric and non-parametric.

The Stochastic Frontier Approach (SFA) approach, Thick Frontier Approach (TFA) and Distribution Free Approach (DFA) are parametric approaches, while non-parametric approaches include Data Envelopment Approach (DEA) and Free Disposable Hull (FDH) (Syakir, 2004). Hadad et al. (2003) added that the parametric and non-parametric approaches would essentially obtain relatively the same results, if the samples analyzed were the same unit and used the same production process.

According to Farrell (1957) the concept of efficiency of the company consists of two components, namely technical efficiency and allocative efficiency. Technical efficiency reflects the ability of the company to produce output with a number of available inputs. Whereas allocative efficiency reflects the company's ability to optimize its use of inputs, with the price structure and production technology. These two sizes are then combined into economic efficiency (economic efficiency).

Efficiency is defined as the ratio between output and input. There are three factors that cause efficiency: (1) the same input can produce greater output, (2) smaller inputs can produce the same output, and (3) larger inputs can produce more output with a percentage large than the amount of additional input (Hidayat, 2014). Thus, efficiency in the zakat institution is very important. According to Noor (2012), the performance and measurement systems must be developed in zakat institutions. This is an effort to oversee the accountability of zakat management institutions.

2.2. The concept of efficiency theory in Islam

Efficiency theory is closely related to production theory which involves input variables to produce output. One of the theories on the efficiency in Islamic perspective is explained by Karim (2015). According to him, production efficiency in Islam can be done through two approaches. The first approach is production efficiency based on minimal costs. Cost minimization by producers can be done by reducing the total cost or production

costs, both fixed costs and variable costs in order to minimize the average cost of production.

As for the second approach, production efficiency is carried out with optimal production. Maximizing output is done by producers by making maximum use of the production factors they have, so that producers can maximize the amount of output produced as effectively and efficiently as possible in their production activities. The meaning of efficiency in a simple way can be interpreted as doing something in a good and appropriate way and not excessive. In Islamic economic perspective views that the concept of efficiency is in line with one of the goals of *maqashid sharia*, namely the maintenance of charity

The purpose of efficiency is to achieve optimal profits with the results of increasing quality and quantity. In Islam, the term of efficiency is currently described by Oemar Chapra (2000) as a comparison between useful output in the presence of input. Not just a comparison between input and output. That is, the concept of efficiency is always in tandem with the utilization of existing resources (inputs) to obtain useful results (output) (Chapra, 2000), without being excessive and also having an impact on waste.

2.3. Efficiency approach to Zakat management organizations

According to Akbar (2009), Zakat Institution (OPZ) is an organizations that act as *amil* zakat. In carrying out its duties, zakat institutions need large operational funds, ranging from employee (*amil*) salaries), socialization costs, and other operational costs. On the basis of this condition, an effort is needed to streamline the operational costs of the Zakat Institution (OPZ) in accordance with the level of needs and importance. So that the costs incurred are in accordance with the needs of the Zakat Institution (OPZ). Thus the assets of zakat can be maximized in order to achieve the goal of zakat, which is to improve the welfare of the poor people and reduce poverty.

3. Methodology

The research method used is descriptive-comparative in order to compare the level of efficiency in National Board of Zakat (BAZNAS) regency/city in West Java period 2010-2018. To measure and analyze the efficiency of BAZNAS, the data was analyze using the Data Envelopment Analysis (DEA).

The steps taken to analyze efficiency are as follows:

1. Searching and collecting the input and output data taken from financial overview of the zakat institution financial statements concerned with samples in the period 2010-2018.
2. Calculating the efficiency values at zakat institutions using software MAX DEA 6.1 and DEAP 2.1.
3. Determining the target of efficiency improvement based on the calculation of DEA.
4. Interpreting the results obtained.

The population of this study is BAZNAS regency/city in West Java province during the 2010-2018 period. While the sampling method used is purposive sampling with quota sampling approach with criteria data are available in BAZNAS regency/city financial statement. Thus the sample that will be examined are as follows:

TABLE 2: BAZNAS Regency/ City in West Java.

No	BAZNAS	No	BAZNAS
1	West Java	7	Banjar Regency
2	Karawang Regency	8	Kuningan Regency
3	Ciamis Regency	9	Subang Regency
4	Cirebon City	10	Cirebon Regency
5	Bekasi City	11	Purwakarta Regency
6	Cimahi City		

Source: BAZNAS West Java Province (2018)

The type of data used in this study is quantitative in the form of numbers, secondary and time series data. In addition, the source of data in this study came from BAZNAS's financial statements period 2010 - 2018. The data is obtained from the official BAZNAS website or through direct visits to the office of BAZNAS regency/city in order to request BAZNAS financial statements.

4. Result

Based on the results of the study, it can be seen that the general description of the characteristics of efficiency is divided into two parts, namely efficient and inefficient. Inefficient scores are categorized as increasing and decreasing.

Moreover by using an input approach, increasing can be interpreted as a variable of operational costs used can be added again so that it can achieve optimal levels of collection and distribution.

In addition, decreasing can be interpreted as the value of efficiency that is already excessive. Therefore these inefficiencies are needed to withstand operational costs or even save operational costs. So that the collection and distribution can develop well.

Furthermore, constant conditions in the input approach can be interpreted as sufficient operational costs. No need to save or increase. Thus, zakat institutions that experience this condition only need to focus on how to improve the collection and distribution of zakat funds.

TABLE 3: Efficiency Score of National Board of Zakat Regency/City in West Javaa.

No	Zakat Institution	Efficiency Score	RTS Input
1	2018-Bekasi City	1	Constant
2	2015-Kuningan Regency	1	Decreasing
	2017-Kuningan Regency	1	Decreasing
4	2017-Ciamis Regency	0,957	Decreasing
5	2014-Kuningan Regency	0,954	Decreasing
6	2015-West Java	0,950	Decreasing
7	2016-Kuningan Regency	0,909	Decreasing
8	2013-Kuningan Regency	0,866	Decreasing
9	2016-Ciamis Regency	0,848	Decreasing
10	2016-Banjar Regency	0,832	Constant
11	2016-West Java	0,801	Decreasing
12	2012-Kuningan Regency	0,777	Decreasing
13	2011-Kuningan Regency	0,736	Decreasing
14	2017-Bekasi City	0,717	Decreasing
15	2010-Kuningan Regency	0,652	Decreasing
16	2017-Banjar Regency	0,514	Constant
17	2016-Cirebon Regency	0,437	Decreasing
18	2013-Cirebon Regency	0,436	Decreasing
19	2014-Cirebon Regency	0,429	Decreasing
20	2015-Cirebon Regency	0,419	Decreasing
21	2012-Cirebon Regency	0,415	Decreasing
22	2011-Cirebon Regency	0,388	Decreasing
23	2018-Banjar Regency	0,337	Constant
24	2016-Bekasi City	0,311	Decreasing
25	2017-Cirebon City	0,305	Decreasing
26	2016-Cirebon City	0,212	Decreasing
27	2015-Cirebon City	0,211	Decreasing
28	2015-Banjar Regency	0,210	Constant
29	2013-Banjar Regency	0,209	Constant
30	2014-Banjar Regency	0,201	Constant

No	Zakat Institution	Efficiency Score	RTS Input
31	2014-Cirebon City	0,198	Decreasing
32	2013-Cirebon City	0,191	Decreasing
33	2017-Purwakarta Regency	0,154	Decreasing
34	2017-Karawang Regency	0,150	Constant
35	2018-Karawang Regency	0,149	Decreasing
36	2011-Banjar Regency	0,143	Constant
37	2012-Banjar Regency	0,143	Constant
38	2015-Purwakarta Regency	0,139	Decreasing
39	2016-Purwakarta Regency	0,130	Decreasing
40	2014-Subang Regency	0,100	Decreasing
41	2011-West Java	0,088	Decreasing
42	2017-Cimahi City	0,086	Decreasing
43	2016-Subang Regency	0,083	Decreasing
44	2017-Subang Regency	0,081	Decreasing
45	2016-Cimahi City	0,079	Decreasing
46	2010-Banjar Regency	0,075	Constant
47	2013-Subang Regency	0,071	Decreasing
48	2014-Cimahi City	0,065	Decreasing
49	2015-Cimahi City	0,064	Decreasing
50	2015-Subang Regency	0,061	Decreasing
51	2014-West Java	0,061	Decreasing
52	2012-West Java	0,053	Decreasing
53	2012-Subang Regency	0,053	Decreasing
54	2011-Subang Regency	0,048	Decreasing
55	2013-West Java	0,039	Decreasing
56	2010-Subang Regency	0,019	Constant

Source: Research Results (2018)

Based on the table 3, National Board of Zakat (Baznas) Kuningan Regency in 2015 and 2017 still decreasing even though it is included in fully efficient. This case indicated that National Board of Zakat (Baznas) Kuningan Regency can be improved.

Then, we know that only 5.36% of baznas in West Java has experiences efficiency. This means that almost all of Baznas in West Java experience inefficiencies. But this is not a benchmark that Baznas in West Java has very low value for efficiency. Even though at the level of inefficiency, Baznas in West Java has the potential to achieve full efficiency in the future. This is because of the average inefficiency occurs in the years (2010-2014).

In addition, there are 3 National Board of Zakat (Baznas) as Decision Making Unit (DMU) which were mostly referred regarding of its full efficient score, namely Baznas in Bekasi City, Kuningan District in 2015 and 2017. The result can be seen on the table below:

TABLE 4: Efficiency and Inefficiency Score.

Zakat Institution	Efficiency Score	Times of Benchmark
2018-Bekasi City	Fully Efficient	48
2015-Kuningan Regency	Fully Efficient	37
2017-Kuningan Regency	Fully Efficient	5
All Zakat Institution except 3 at above	Inefficient	0

Source: Research Results (2018)

Furthermore factors that cause inefficiencies are used as a basis for how in order to overcome inefficiencies. The cause of determine inefficiency can be seen on the result of software max dea at column *slack movement* and *proportionate movement* must not be equal zero ($\neq 0$) as follows:

TABLE 5: Factors That Cause Inefficiency.

Variable		Slack or (/) Proportionate Movement	Description
Input	Operating Expenses	0/5	Total of input score \leq output score This means that the input variable is not the cause of inefficiency
Output	Collection Funds	34/53	Total of output score \geq input score. This means that the output variable is the caouse of inefficiency
	Distribution Funds	19/53	

Source: Research Results (2018)

Based on table 5, it can be concluded that the causes of inefficiency is output factors, while input factors do not significantly contribute to the causes of inefficiency.

The inefficiencies in output factors occur due to the collection of zakat which is still low but the distribution is better. This is a new finding, where many studies explain that the cause of the inefficiency of zakat management organizations is due to the low of distribution.

To find out the source of inefficiency form Baznas in this study, it can be seen through the total potential improvement in the table 6. It works when it has been fully implemented by Baznas.

TABLE 6: Potential Improvement for Increasing Efficiency of BAZNAS Output Orientation.

Zakat Institution	Average (%)		
	X1	Y1	Y2
2010-2018 Banjar Regency	0	77	74
2010-2017 Kuningan Regency	-1	15	14
2010-2017 Subang Regency	0	94	94
2011-2016 West Java	-18	68	76
2011-2016 Cirebon Regency	0	61	58
2013-2017 Cirebon City	0	79	78
2014-2017 Cimahi City	0	94	93
2015-2017 Purwakarta Regency	0	89	86
2016-2017 Ciamis Regency	-54	9,5	20
2016-2018 Bekasi City	0	32	34
2017-2018 Karawang Regency	0	86	85
Mean	-7	64	65

Source: Research Results (2018)

Based on Table 6 with an output orientation approach, the main source of inefficiency in BAZNAS are as follows:

1. The average operational cost used by National Board of Zakat (Baznas) in West Java is smaller than the output variable. This means that the reduction or retention of operational costs is not a priority.
2. The average increase in zakat collection that can be achieved by Baznas in West Java in order to not experience inefficiencies in the future by 64%.
3. The average value of the maximum zakat distribution can be achieved by National Board of Zakat (Baznas) in West Java is 65%.
4. Baznas with the recommendation to increase the highest collection and distribution are Subang Regency, Cimahi City, Purwakarta Regency and Karawang Regency.
5. Baznas with the recommendation to reduce or withstand operational costs are Ciamis regency and Baznas West Java.

6. In addition, there are two best zakat institutions so that there is no need to increase output or reduce input significantly namely Baznas Bekasi City and Baznas Kuningan Regency.

The results of this study are not absolute, the addition of zakat institutions or periods can change the results.

5. Conclusion

There are 3 Decision Making Unit (DMU) that are efficient (100%) and inefficiency as much as 53 Decision Making Unit (DMU). Bekasi City and Kuningan Regency are two zakat institutions that are capable of achieving full efficiency. This means that the majority of Baznas regency/city in West Java still have not achieved efficiency.

In general, the main cause of inefficiency factor of Zakat Institution from 2010 to 2018 due to the lack of zakat fund collected by Zakat Institution. Lack of total collection leads to a lack of limited distribution and operational usefulness. If the collection can be enlarged, it will make Baznas in West Java are able to give a socio-economic impact on the people in West Java. Therefore the role of the government in assisting the collection of baznas are highly needed.

National Board of Zakat that have not been able to reach full efficiency levels can make improvements by focusing on increasing the collection and distribution of zakat funds. With the exception of Baznas Ciamis Regency and West Java, which need to withstand operational costs.

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