



#### **Conference Paper**

# The Efficiency of Zakat Institutions in Indonesia in 2012-2016

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#### **Abstract**

This study aims to determine the level of efficiency of the zakat institutions for the period 2012-2016 and find out the causes of its inefficiencies. This study uses financial report from five zakat institutions that are sampled, namely BAZNAS, Rumah Zakat, Dompet Dhuafa, PKPU, and Rumah Yatim. The research method used is descriptive meth with data envelopment analysis (DEA) technique, the novelty from this research is on the newest period of zakat institutin financial report and the object variable. Based on the results of research conducted it is known that in the period 2012-2016, zakat institutions conditions in indonesia were not yet fully efficient. There are four zakat institutions that experience efficiency, and there are 4 efficient zakat institutionss from 23 zakat institutions in general from 2012-2016, namely Rumah Zakat 2015, 2016 and also PKPU in 2012, 2016, the rest are 15 zakat institutions which are not yet fully efficient. The cause of the inefficiency in the zakat institutions was mainly due to the high operational costs incurred and the still low receipt of zakat funds obtained and the distribution of zakat funds were only used for the short term.

Keywords: Efficiency, Zakat Institution, Data Envelopment Analysis

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Received: 10 February 2019 Accepted: 14 March 2019 Published: 28 March 2019

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Selection and Peer-review under the responsibility of the ICIEBP Conference Committee.

#### 1. Introduction

Zakat institutions are one of the social and economic institutions that can significantly develop the national economy (Qardhawi, 2011). Several programs in zakat institutions are also able to reduce poverty levels and provide empowerment impacts for people who are not yet prosperous. Didin Hafidhudin (2013) explained that zakat institutions must have two objective programs, the first purpose is to meet basic needs which are divided into health, and education. The second purpose is economic empowerment which is divided into financial assistance (business funding), business empowerment and business supervision.

The large number of Muslim population in Indonesia is a huge potential for the collection of zakat funds in the community, the results of research by Bogor Agricultural

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University (IPB), National Zakat Agency (BAZNAS), and Islamic Development Bank (IDB) (2013) shows national zakat potential in Indonesia reached Rp. 217 trillion in 2011.

TABLE 1: Projection of Zakat Potential in Indonesia.

Zakat Subject	Potential of Zakat (in Trillion Rupiahs)
Households	82,70 t
Private company (industry)	114,89 t
Government Institutions	2,40 t
Savings and Deposit Zakat Institutions	17,00 t
Total	217,00 t
Source: Mubarok & Fanani (2014)	

This great potential should be utilized to the fullest, especially the government, practitioners and academics that have known the greatest potential of zakat collection in private companies and households (professional charity. Trade Zakat, agricultural zakat, zakat fitrah, zakat jewelry, gold and others). However, this potential will only continue to be a potential if the utilization of collection that has been received every year does not have a significant impact on socio-economic and information impacts on the community. In line with the assumption of the author, research from Uzaifah (2007) describes the failure of this potential, one of which is due to muzakki dissatisfaction in using the services of the Amil Zakat Agency (BAZ) as a means of distributing his property. So that it raises a behavior where muzakki distributes zakat (ZISWAF). Based on the results of the research, 44% of muzakki chose to distribute their zakat individually.

Zakat, Infaq and Giving (ZIS) data in Indonesia are able to reflect significantly the aggregate growth of ZIS collection from 2002 to 2016 (see Picture 1.1). It is seen that there was a significant increase in 2005 of 96.60 percent, which was originally growth in 2004 at only 76 percent. This significant increase occurred due to the Aceh Tsunami and also, when the earthquake in Yogyakarta in 2007 ZIS growth shot up to reach 98.30 percent, the growth of its collection was only 26.28 percent.

The attractive growth of this collection dropped to 19.31 percent in 2013 before. ZIS is still at the normal level of 27.94 percent. The decline in ZIS was called again in 2015 and at the same time became the highest ZIS loading for 15 years of ZIS collection. The 2015 population growth rate was 10.71 percent.

Based on Picture 1 and conclusions from the authors, there is a common thread that can be taken a valid question whether ZIS growth always occurs when there are natural

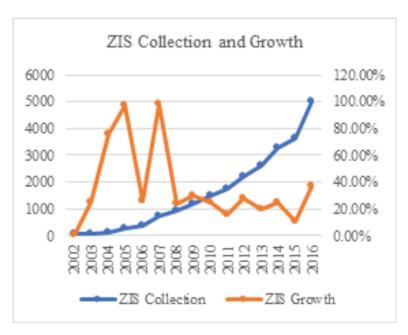


Figure 1: Number of ZIS Collections in Indonesia (2002-2015). (Source: BAZNAS (2017).)

disasters and when there is no natural disaster, there is no increase or even a decrease in ZIS. So the most important thing is not utilizing the potential but utilizing the funds that have been obtained or collected to manage performance.

According to the problems above, it is founded some of the most important indications and must be resolved, the problem is the evaluation of the performance of the zakat institutions program with a focus on discussion on the level of efficiency. One of the method to evaluate the performance of an institution is in terms of its performance efficiency with the *Data Envelopment Analysis method*.

#### 2. Literature Review

The concept of efficiency comes from the concept of micro-economics, namely the theory of producers. Producer theory tries to maximize profits or minimize costs from the manufacturer's point of view. In the manufacturer's theory there is a production limit curve (production frontier curve) which describes the relationship between input and output of the production process. This production frontier curve represents the maximum output level of each input usage that represents the use of technology from a company or industry (Ascarya & Yumanta, 2006).

According from economic theory there are two kinds of explanation of efficiency, namely technical efficiency and economic efficiency Ascarya and Yumanita (2006)

explain that economic efficiency has a macroeconomic viewpoint, while technical efficiency has a microeconomic viewpoint. Measurement of technical efficiency tends to be limited to technical and operational relations in the process of converting input to output. While the economic efficiency, the price can not be predetermined (given), because prices can be influenced by macro policies.

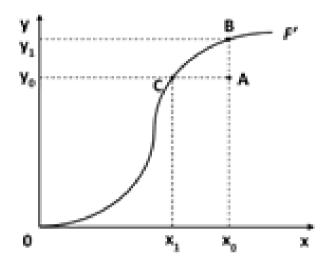


Figure 2: Production Frontier Line (Source: Coelli et al (2005)).

The line described how the maximum output that can be obtained from each level of input. Where (x) is input and (y) is output. Companies in industry can be said to be technically efficient if operating above the frontier line. While companies in the industry that operates under the production frontier line is said to be technically efficient. Point A shows the condition of inefficiency, where point B and C show the condition of efficiency achieved by the company.

Companies operating at point A are described as inefficient, because technically the company can increase output up to the point of contact with point B, without requiring more input. Or the company can also produce a fixed output, using fewer inputs, as shown by point C (Coelli & et al, 2005). So that producers can produce efficiently with two choices, either reducing input or maximizing existing inputs to produce more output.

According to Akbar (2009), OPZ requires operational funds that are not small, starting from Amilin's salary, socialization costs, and other operational costs. Regarding the salary of Amilin, you should give a wage that is suitable for your work, but the wages given are not too small and not too excessive. So it is necessary to know that the wages given are at an efficient or inefficient level. In addition Rusydiana and Alfarisi (2016) expressed their findings in the form of efficiency that can be measured to the level of the program in Dompet Dhuafa. Because research at the program level is able to represent the



position or location of the OPZ program at an efficient or inefficient level that comes from input factors (expenditure or costs) and output factors (receipt and distribution).

Research on the efficiency of using Data Envelopment Analysis in zakat institutions in Indonesia is still low, because research on DEA efficiency is always used in banking and non-banking financial institutions. As was done by Bader (2008), Kamarudin (2008). Ozdemir (2013), Sahreki (2012), Tsolas and Dimitris (2012). But now, DEA is also widely used in measuring the level of non-bank efficiency, such as: hospitals, universities, tax offices, including non-profit institutions (OPZ), Rusydiana (2013).

Research on efficiency in OPZ has actually been carried out by several researchers. For example research conducted by Wahab (2012) and (2013), also by Noor (2012) and (2012), and also by Ahmad (2014). But all of the research was carried out in Malaysia. The research on the efficiency of using DEA in OPZ in Indonesia is still relatively small. Only 5 research results were found in the form of journals which were carried out by Akbar (2009), Rusydiana et al. (2016), wahyuni (2016) Zahra et al. (2016) and Lestari (2015).

### 3. Methodology

The method used is a quantitative method using Data Envelopment Analysis (DEA) using the Max Dea software is the development of linear programming based on the technique of measuring the relative performance of a group of input and output units. DEA is a procedure that is designed specifically to measure the relative efficiency of a company that uses many inputs and multiple outputs, where the input and output merging is not possible. The relative efficiency of a company is the efficiency of a company compared to other companies in the sample (a group of companies whose slings are compared) that use the same type of input and output.

DEA was first developed by Farrel (1957) which measures the efficiency of one input and one output technique into multi inputs and multi outputs, using the framework of relative efficiency values as the ratio of input (single virtual input) to output (single virtual output) (Sutawijaya & Etty, 2009).

Variabel of Operationalization, this table would show input and output variable to measure the efficiency level of Zakat Institution from 2012-2016, as follow:

Input Variable	Definition	Source	
Input 1 (X <sub>1</sub> )	Operating Expenses	P/L Statement	
Input 2 (X <sub>2</sub> )	Salary Expenses	P/L Statement	
Input 3 (X <sub>3</sub> )	Sosialization Cost	P/L Statement	
Output Variable	Definition	Source	
Output 1 (y <sub>1</sub> )	Deposit ZISWAF	P/L Statement	
Output 2 (y <sub>2</sub> )	Fund Distribution	P/L Statement	
Source: (Rusyidiana & SmartConsulting, 2013)			

#### 4. Result

Based on the results of research in the field, known general description of the characteristics of result are as follows modification from Methodelogy *Analytic Network Process* by Thomas L. Saaty:

TABLE 3: Efficient Category Assessment and inefficiency.

Definition	Intensity of Eficiency	Definition	
Fully Efficient	1	The highest efficiency level of 100%	
Not Efficient	<1	Not Efficient less than 100%	
Very Strong Expected	0,8-0,99	Inefficiency but still highly expected to be efficient	
Strong Expected	0,6-0,79	Inefficiency but still very likely to be optimized.	
Passable Expected	0,4-0,59	average inefficiency	
Weak Efficient	0,2-0,39	low inefficiency	
Very Weak Efficient	0,0-0,19	very inefficiency	
Source: modivication from (Saaty & Vergas, 2006).			

The above assessment is carried out to make it easier to describe an Zakat Institution that is both efficient and inefficient. In the table 2 below can be seen, The are 4 years in Domepet Dhuafa that include to efficient (Constant; 100% or fully efficient) in 2012, 2014, 2015 and 2016. And then there are 3 Zakat Institution Ranking that successively is PKPU in 2012, 2015 and 2016. Rumah Zakat in 2015 and 2016. And the last is Rumah Yatim 2012.

While BAZNAS was the lowest efficiency all of Zakat Institution. But this is able to be a considered for Zakat Institution has not been efficient in order to improve the technical



change. Such as reducing some operating expenses and orther cost and not forgetting must increasing fund and distribution also.

TABLE 4: Penilaian Kategori Efisien dan ketidakefisienan.

No	Zakat Institution	Efficiency Score	Description	RTS Output	
1	2012-Dompet Dhuafa	1	Fully Efficient	Constant	
2	2012-Rumah Yatim	1	Fully Efficient	Constant	
3	2012-PKPU	1	Fully Efficient	Constant	
4	2014-Dompet Dhuafa	1	Fully Efficient	Constant	
5	2015-Dompet Dhuafa	1	Fully Efficient	Constant	
6	2015-PKPU	1	Fully Efficient	Constant	
7	2015-Rumah Zakat	1	Fully Efficient	Constant	
8	2016-Dompet Dhuafa	1	Fully Efficient	Constant	
9	2016-PKPU	1	Fully Efficient	Constant	
10	2016-Rumah Zakat	1	Fully Efficient	Constant	
11	2013-Dompet Dhuafa	0,951	Very Strong Expected	Decreasing	
12	2013-PKPU	0,927	Very Strong Expected	Decreasing	
13	2014-BAZNAS	0,914	Very Strong Expected	Decreasing	
14	2014-PKPU	0,912	Very Strong Expected	Decreasing	
15	2014-Rumah Zakat	0,902	Very Strong Expected	Decreasing	
16	2012-Rumah Zakat	0,882	Very Strong Expected	Decreasing	
17	2013-Rumah Zakat	0,797	Strong Expected	Decreasing	
18	2016-Rumah Yatim	0,790	Strong Expected	Decreasing	
19	2012-BAZNAS	0,746	Strong Expected	Increasing	
20	2013-Rumah Yatim	0,704	Strong Expected	Increasing	
21	2013-BAZNAS	0,686	Strong Expected	Increasing	
22	2016-BAZNAS	0,578	Passable Expected	Decreasing	
23	2015-Rumah Yatim	0,547	Passable Expected	Increasing	
24	2014-Rumah Yatim	0,536	Passable Expected	Increasing	
25	2015-BAZNAS	0,522	Passable Expected	Decreasing	
Sourc	Source: Research Results (2018)				

Generally, the inefficiency was caused by the low and each often held distribution for mustahik, still low funding and the finally highest operating expenses. This based on the explaination, the cause of inefficiency can saw in result software max dea at column  $slack\ movement$  and  $proportionate\ movement$  must not be equal zero ( $\neq$ 0).



Furthermore, the result would attempt to answer some of question focus on research. Among how about the Return to Scale (RTS Output Approach) of each Zakat Institution and the potensial improvement (increased or decreased up to maximum) of Zakat Institution is not efficient yet.

The Tabel above also provides that most business unit are inefficiency  $\leq$ 100% or  $\leq$ 1, namely 10 Zakat Institution, while the least Zakat Isntitution with level of efficiency of passable expexted (0,4-0,59), strong expected (0,6-0,79) and very strong expected (0,8-0,99).

In additional, the Zakat Institution is in efficiency devided into two part, both Decreasing Return to Scale (DRS) and Increasing Return to Scale (IRS). DRS namely Zakat Institution would output factor who has excess efficiency and IRS namely Zakat Institution who can be able to added input factor to achive fully efficiency.

The results of the 2015 BAZNAS efficiency level according to each variable according to actual data and target data and recommendations for each variable based on potential improvement will be explained in the following table:

TABLE 5: Potential for Increasing BAZNAS 2015 Input Orientation Efficiency.

Variable	Actual	Target	Potential Improve- ment %	Recommendation
Operating Expenses (X1)	Rp29.734.832.321	Rp5.507.740.983	-81,5	-Rp24.227.091.338
Salary Expenses (X2)	Rp19.139.187.857	Rp9.985.880.361	-47,8	-Rp9.153.307.496
Socialization Expenses (X3)	Rp2.976.714.402	Rp1.553.102.154	-47,8	-Rp1.423.612.248
Deposit ZISWAF (Y1)	Rp94.068.893.819	Rp94.068.893.819	0,0	Rp0
Fund Distiobution (Y2)	Rp74.587.383.638	Rp76.613.690.684	2,7	Rp2.026.307.046
	Operating Expenses (X1) Salary Expenses (X2) Socialization Expenses (X3) Deposit ZISWAF (Y1) Fund Distiobution	Operating Expenses (X1)  Salary Expenses (X2)  Socialization Expenses (X3)  Deposit ZISWAF (Y1)  Fund Distiobution  Rp29.734.832.321  Rp19.139.187.857  Rp19.139.187.857  Rp2.976.714.402  Rp2.976.714.402  Rp94.068.893.819	Operating Expenses (X1)  Salary Expenses (X2)  Socialization Expenses (X3)  Deposit ZISWAF (Y1)  Rp29.734.832.321 Rp5.507.740.983  Rp19.139.187.857 Rp9.985.880.361  Rp2.976.714.402 Rp1.553.102.154  Rp2.976.714.402 Rp1.553.102.154  Rp94.068.893.819 Rp94.068.893.819  Rp74.587.383.638 Rp76.613.690.684	Improvement %   Operating Expenses (X1)   Rp29.734.832.321   Rp5.507.740.983   -81,5   -81,5     Rp29.734.832.321   Rp9.985.880.361   -47,8   Expenses (X2)   Socialization Expenses (X3)   Rp2.976.714.402   Rp1.553.102.154   -47,8   -47,8     Rp94.068.893.819   Rp94.068.893.819   O,0   Constitution   Rp74.587.383.638   Rp76.613.690.684   Constitution   Rp74.587.383.638   Rp76.613.690.684   Constitution   Constitution   Constitution   Constitution   Rp74.587.383.638   Rp76.613.690.684   Constitution   Constitut

Source: Data processed with MaxDEA 6.1

Based on Table 4.12 with an input orientation approach, the main source of inefficiency in BAZNAS in 2015 is in terms of Operational Costs. The following is an explanation of the potential improvements for each variable that BAZNAS must do:1. The operational costs used by BAZNAS are too much 81.5%. This means that IDR24,227,091,338 of the total BAZNAS Operational Costs must be reduced to produce an efficient output.2. Too much BAZNAS personnel costs are issued to exceed 47.8% of the actual figure. To



reach an efficient level, BAZNAS can reduce Rp. 9,153,307,496 from personnel costs incurred.3. The BAZNAS socialization fee is too much 47.8%, therefore the amount of the socialization fee must be reduced by IDR 1,423,612,248 to achieve efficiency.4. The acceptance of BAZNAS has been efficiently viewed from the amount of actual value and the same target value of Rp 94,068,893,819, therefore this condition must be maintained in order to remain efficient.5. The number of BAZNAS distribution must be increased a little more which is around 2% or Rp.2,026,307,046 to achieve efficient

The results of this study are supported by the research of Salman Al Parisi (2015) from SMART Consulting which examines the deterministic analysis of zakat institutions and their level of productivity, the results of these studies show that BAZNAS has experienced inefficiencies in 2005, such as in 2005 (69.64), 2008 (61.65), 2012 (47.1).

The results of the efficiency level of Rumah Zakat in 2015 according to each variable according to actual data and target data as well as recommendations for each variable based on potential improvement will be explained in the following table:

Rumah Zakat Variabel Aktual Target Potential Recommend-2015 Improveation **Efficiency** ment % Score: 1 Input B.Operasional (X1) Rp13.690.337.999 Rp13.690.337.999 0 Rp0 B. Personalia (X2) Rp36.249.992.035 Rp36.249.992.035 0 Rp0 B. Sosialisasi (X3) Rp3.689.047.337 Rp3.689.047.337 0 Rp0 Rp251.575.187.994 Rp251.575.187.994 Output Peneriman (Y1) 0 Rp0 Penyaluran (Y2) Rp206.937.483.802 Rp206.937.483.802 Rp0

TABLE 6: Potential for Improving Orientation Efficiency of Rumah Zakat Input 2015.

Source: Data processed with MaxDEA 6.1

Based on Table 6 with an input orientation approach, Actual Values and target values of Rumah Zakat have the same value, meaning Rumah Zakat are always efficient every year from 2012-2016 and in the best condition and produce an efficiency score of 100%, so the suggestion is that these conditions must be maintained. The results of this study are supported by several studies that always show the Zakat House as an OPZ that has an average or almost efficient results, such as Anisa Rahmayanti's (2014) research which shows the Zakat House has an annual average of 94.09%, then Rahmad's research Kadri (2014) who examined that Rumah Zakat included OPZ which had the highest average efficiency, and Retno Wulandari (2013) research also showed the highest level of efficiency in Zakat House institutions.



#### 5. Conclusion

There are 10 Zakat Institution that efficient (100% 1). And inefficiency as much as 15 Zakat Institution. Domepet Dhuafa that include to relative efficient (Constant; 100% or fully efficient) in 2012, 2014, 2015 and 2016. And the most inefficient Zakat Intitution is BAZNAS (2012).

In generaly, the main of inefficiency factor of Zakat Institution from 2012 to 2016 due to the Distribution Fund of Zakat Institution to who need *asnaf* which still less optimal. Other than that, deposit ZISWAF still less and operating expenses too much spend money.

The results of the 2015 BAZNAS efficiency level according to each variable according to actual data and target data and recommendations for each variable based on potential improvement has 0,52 score, it means the number of BAZNAS distribution must be increased and the operational costs should be decreased, while Rumah Zakat efficiency score was stable at 1.

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