

Amil Zakat Institutions Performance Analysis During the Covid-19 Pandemic: Studies in Indonesia, Singapore, and England

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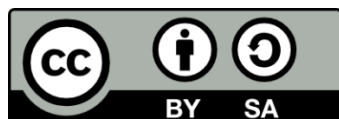
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Abstract

The Amil Zakat Institution is required to have efficient and effective performance, especially during the Covid-19 health crisis. This study aims to measure the performance of amil zakat institutions in Indonesia, Singapore, and England based on the efficiency level with the Data Envelopment Analysis approach and the level of effectiveness with the Allocation to Collection Ratio approach. The efficiency level of amil institutions was measured using the Data Envelopment Analysis method, the non-parametric statistical approach used in calculating the relativity of efficiency. The software used to measure Data Envelopment Analysis is DEAP 2.1. The results of efficiency measurements based on the Data Envelopment Analysis showed that Dompot Dhuafa, Majlis Ugama Islam Singapore (MUIS), and the National Zakat Foundation (NZF) achieved optimal and efficient performance during the Covid-19 pandemic (in 2020), but experienced inefficiency before the Covid-19 pandemic in 2017 (Dompot Dhuafa), 2018 (Dompot Dhuafa & NZF), and 2019 (MUIS). If assessed based on effectiveness in channeling funds using the Allocation to Collection Ratio, Dompot Dhuafa, Majlis Ugama Islam Singapore, and the National Zakat Foundation achieved effective values both before and during the Covid-19 pandemic.

Keywords: Amil Zakat Institution; Allocation to Collection Ratio; Data Envelopment Analysis; Effectiveness; Efficiency

INTRODUCTION

The spread of the covid-19 virus in Indonesia and almost all countries in the world has been going on for the last two years. Its spread not only causes a health crisis but also causes an economic crisis in the community. All elements of society feel the impact, especially the lower middle class. There were layoffs, business closures, loss of livelihoods, hunger, and other events arising from the economic crisis during the COVID-19 pandemic. The government has made various efforts so that the economic crisis does not cause a prolonged effect which is feared to be a trigger for the increase in the poverty rate.

Poverty in Indonesia is a chronic problem that requires every change of government regime to overcome it. The Central Statistics Agency (BPS) (2021) noted that the poverty rate in Indonesia in 2018 was 25.67 million people, or around 9.66% of the total population of Indonesia, and decreased in 2019 to 24.79 million people (9.22%). However, the trend of decreasing poverty rates for several years did not last long. The poverty rate in Indonesia recorded an increase in the first semester of 2020 to 26.42 million people (9.78%) or an increase of 6.58% from the previous semester. The increase in the poverty rate in the second semester of 2020 will continue until the first semester of 2021 to 27.54 million people, or 10.14% of the total population of Indonesia. When compared before the pandemic and during the pandemic (semester 1 2021), the poverty rate in Indonesia has increased by 11.09%. The increase in poverty rates throughout 2020 and 2021 is one of the consequences of the health and economic crises that occur simultaneously throughout the world (Sumardi et al., 2020).

The problem of poverty is not only the responsibility of the government but also the responsibility of the community in general, both individuals and institutions. High poverty can lead to social inequality that can potentially increase the crime rate in society. Therefore, the synergy between the government and the community is needed to reduce poverty in Indonesia. Muslim communities who believe in Islam as a perfect religion, have a solution to the problem of poverty in the community. Islamic law instructs every Muslim classified as able to pay zakat and give alms voluntarily. During the pandemic, there was an increase in the amount of zakat and alms in the Muslim community as a response to caring for others (Putri, 2020). Apart from being a form of worship to Allah SWT, this is so that the wealth owned by the rich and affluent does not revolve among themselves but is also felt by those in need. This is explained in the Qur'an in Surah Al-Hashr ayah 7 which means: "... (Thus) so that the treasure does not circulate only among the rich among you".

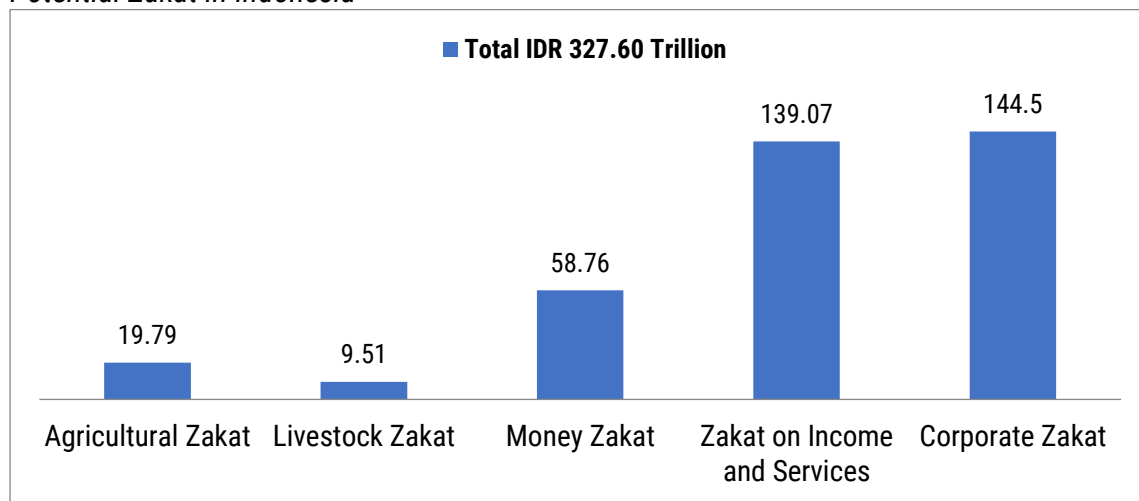
Zakat is an obligation (pillar) for a Muslim that must be paid with predetermined conditions. In addition to zakat, there are also alms, grants, and waqf, which are not only a form of worship to Allah Almighty but also a form of social practice (Atabik, 2015; Mustarin, 2017). Zakat is believed by Muslims since ancient times as a solution to overcoming poverty. This is evidenced by the success of Caliph Umar bin Abdul Azis in his time. At that time, it was explained that it was very difficult to find *mustahik* (people entitled to receive zakat) to receive zakat funds, especially from the poor and needy because all Muslims at that time were already living well (Andri, 2020). On a macro level, zakat is needed and plays an important role in financial instruments and is the main fiscal policy in the Islamic economic system. Zakat is a real

instrument in realizing social justice in the community. This is because zakat simply transfers some of the wealth of the rich to be allocated to those who are entitled to receive it. In addition, zakat is also a real symbol that Islam is religion that is *rahmatan lil 'alamin* (Darmawan & Desiana, 2021).

The solution of zakat in overcoming poverty supported by a large number of Muslims in Indonesia is a huge potential to be managed professionally. This is supported by evidence that Indonesia was asked to be the most generous country in the world according to the World Giving Index by the Charities Aid Foundation (2021). The Charities Aid Foundation noted that around 83% of Indonesians donated during the pandemic. This happened in line with the increasing understanding and awareness of the benefits of social funds, especially zakat among the Muslim community.

Center for Strategic Studies of the National Amil Zakat Agency (2021) noted that the potential for zakat in Indonesia reached a value of IDR 327.6 trillion. This value results from research by National Amil Zakat Agency (BAZNAS) with several national institutions. However, the realization of national zakat receipts is only around IDR 71.4 trillion (21.7%). The value of zakat nationally grows by an average of about 24% every year, even BAZNAS in collecting zakat has increased by 32% yearly. The potential for zakat comes from five zakat objects, as shown in Figure 1.

Figure 1
Potential Zakat in Indonesia



Source: National Amil Zakat Agency (2021)

Based on Figure 1, the potential for zakat funds comes from zakat in the agricultural sector of IDR 19.79 trillion, zakat in the livestock sector of IDR 9.51 trillion, cash zakat of IDR 58.76 trillion, income and services zakat of IDR 139.07 trillion, and corporate zakat of IDR 144.5 trillion. Of several national amil zakat institutions, Dompot Dhuafa recorded the highest receipts of funds and total assets. In 2020, the total assets owned and managed by Dompot Dhuafa amounted to IDR 423.28 billion, and the total funds received were IDR 412.83 billion (Dompot Dhuafa, 2020). This cannot be separated from the presence of Dompot Dhuafa in Indonesia since 1993, so most people know it. Dompot Dhuafa has excellent programs in distributing zakat, infaq,

alms, and waqf (or abbreviated ziswaf funds) with the main objective of alleviating poverty, including education, health, economic, social da'wah, and cultural programs. The amount of ziswaf funds collected by amil institutions nationally can be used to overcome the impact of Covid-19 with a sustainable program in the midst of difficulties experienced by the community (Saputra, 2020). But on the other hand, the amount of ziswaf funds that are managed is a large mandate so it requires good management monitoring as well. Therefore, the amil zakat institution from Indonesia which will be the object of study in this research is the efficiency and effectiveness of Dompot Dhuafa in managing zakat, infaq, and alms funds.

Apart from Indonesia, several other countries also have amil zakat institutions, both managed by the government and non-governmental organizations, including Singapore and England. Both Indonesia, Singapore and England are members of the World Zakat Forum, which is a global forum that accommodates zakat amil institutions from forty countries in the world. The World Zakat Forum was formed to consolidate the practice of zakat with the aim of actively contributing to solving economic and social problems through networks and programs to empower every amil institution in the world (World Zakat & Waqf Forum, 2021).

The Singapore government established the Department of Islamic Religious Affairs called Majlis Ugama Islam Singapura, abbreviated MUIS, as an institution that holds the authority for all Islamic religious activities in Singapore. MUIS was formed to take care of the religious issues of the Muslim community and to provide advice to the government regarding Islamic issues. One of the main tasks of MUIS is the authority to receive, manage, and distribute zakat funds for the Singapore Muslim community. Although the number of Muslim communities is only about 14.7% of the total population, the acceptance of zakat funds by MUIS increases from year to year. The good management of zakat in Singapore cannot be separated from the transparent management of zakat funds and the socialization of the community to help each other and have a sense of solidarity between human beings. The amount of zakat funds collected by MUIS every year is quite large if you look at the Muslim population in Singapore. Based on the financial statements of MUIS (2020), the amount of zakat fund receipts in 2018 was SGD 43.0 million, in 2019 it was SGD 46.5 million, and in 2020 it was SGD 51.8 million. However, the collected zakat funds are used by MUIS to help not only the Muslim community but also the general public in need. Zakat fund distribution programs are very useful, especially for people affected by the spread of COVID-19. Singapore itself is one of the countries experiencing a recession due to the spread of Covid-19 which has an impact on vital sectors of life, causing several problems including unemployment, declining purchasing power, inequality, and other socio-economic problems (Hennida, 2020).

On the other hand, MUIS as a government institution entrusted with the mandate by the Muslims of Singapore to manage zakat funds also did not escape public scrutiny. This cannot be separated from the status of funds managed by MUIS which is an Islamic social fund that must be accounted for in this world and the hereafter. Several studies have been conducted to assess the performance of MUIS in managing zakat funds in Singapore. Ulfa's (2017) research on the efficiency of zakat management institutions in several countries in Southeast Asia concluded that MUIS during 2010-2014 had an efficient performance compared to other OPZs. The same thing was also obtained by Subardi et al. (2020) in research that MUIS has stable

performance in terms of efficiency in collecting and distributing zakat funds during 2013-2017 but with a record of high operating costs on average compared to socialization costs and personnel costs.

In England, the official institution that receives and manages zakat funds is the National Zakat Foundation, abbreviated NZF, in London. NZF is registered as an official charity in England and Wales since 2011. Even though it is only ten years old, its contribution has been felt by the Muslim community in England. For example, the distribution of zakat funds given to 507 Muslims in the Bradford District amounted to £101,522 or around IDR 2 billion in the last year to help Muslims affected by the Covid-19 pandemic in UK (Tejomukti, 2021). In 2020 the NZF recorded receipts of £6.34 million from the Muslim community in UK. This number increased by 66.84% when compared to the previous year's revenue. NZF distributes the funds collected in several distribution programs including the provision of funds to Muslims who are experiencing economic difficulties (Hardship Relief Fund), job training and home improvement (Housing & Work Fund), and education fund assistance (Education Fund). The NZF reports the amount of zakat, infaq, and alms funds received in recent years was £4.93 million (in 2017), £4.63 million (in 2018), £3.80 million (in 2019), and £ 6.34 million (in 2020) while the total disbursement of funds was £4.76 million (in 2017), £4.54 million (in 2018), £4.27 million (in 2019) and £5.22 million (in 2020).

Funds received by *amil zakat* institutions are a mandate from *muzaki/munfiq* to be handed over to parties who are entitled to receive them according to sharia. Management of zakat, infaq, and alms funds by *zakat amil* must be professional and accountable. Supervision of the performance of each *amil* institution, both government institutions, and non-governmental organizations must always be carried out. Each *amil* institution must understand good and correct governance of each process of receiving, distributing, and managing funds. Service and fund management indicators to achieve good governance are performance efficiency and effectiveness (Anwar, 2012). In addition, efficiency and effectiveness are one of the reasons for the establishment of a zakat management institution by following the laws and regulations regarding zakat management. Qardhawi (1995) also argues that the state (institution) that uses funds for each operational activity in a wasteful and inefficient way has the potential to cause a funding sector to be financed without careful calculation.

Efficiency and effectiveness for the *amil zakat* institution should be done in to create great benefits and benefits for the wider community (Sidang & Feriyanto, 2021). *Amil zakat* in carrying out operational expenses should pay attention to the principle of simplicity and economy. In addition, *amil* personnel strives to reduce additional operational costs if they do not provide value for the service and management of zakat funds (Alam, 2018). Every operational production carried out must pay attention to the principle of the level of need and level of importance. The operation of *amil zakat* can be seen in the financial report that contains information on assets and costs incurred by *amil* in the collection, distribution, and management of funds. *Amil zakat* which has a performance by paying attention to the principle of efficiency is expected to be able to accelerate the role of zakat, endowment and charity funds in improving the well-being of the people. On the other hand, effectiveness shows the performance of the distribution and channeling of *zawaf* funds received by the *amil* institution as a trust that must

be fulfilled.

The current measurement of the efficiency level of an entity can use several approaches including Data Envelopment Analysis. The performance of a certain number of service units, businesses, hospitals, or financial institutions can be known based on the level of efficiency with the Data Envelopment Analysis approach which can measure and compare the level of efficiency and indicate the specifications of inefficiency in these units. Therefore, researchers from several fields are aware that the modeling process for evaluating operational performance with a very good and relatively easy-to-use methodology is the Data Envelopment Analysis approach. Meanwhile, to measure the effectiveness of the performance of amil institutions, the Allocation to Collection Ratio approach is used. Allocation to Collection Ratio calculates the level of effectiveness of the total distribution of ziswaf funds compared to the number of funds collected. The Allocation to Collection Ratio approach determines the percentage of the effectiveness of the distribution of ziswaf funds to beneficiaries (Bahri & Arif, 2020).

This study will use Data Envelopment Analysis as a measuring tool to assess the performance of amil zakat institutions based on the level of efficiency with case studies in Indonesia, Singapore, and England using a production approach. Meanwhile, to calculate the effectiveness, the Allocation to Collection Ratio approach will be used. Indonesia, Singapore, and England were chosen in this study because they are members of the World Zakat Forum and have the same goal of actively contributing to solving world economic problems. Studies on the performance of am-il zakat institutions in Singapore and England were chosen to be compared with those in Indonesia to provide a new perspective on the potential of zakat and infaq funds and the performance of amil institutions in Muslim minority countries. The purpose of this study was to measure and analyze the level of efficiency and effectiveness of amil zakat institutions during the COVID-19 pandemic in Indonesia, Singapore, and England.

LITERATURE REVIEW

Shari'ah Enterprise Theory

Shari'ah Enterprise Theory is an internalization of the values of monotheism in Enterprise Theory which explains that accounting does not only serve the interests of shareholders (owners) of a company, but also serves the interests of society with a social character. While in Shari'ah Enterprise Theory emphasizes the main responsibility to Allah SWT (vertical) which is further elaborated on the community and the natural surroundings (horizontally) (Triyuwono, 2001). The important point in this theory is that Allah is the creator and absolute owner of all the resources in the world. Humans as stakeholders of an entity are given the mandate to manage resources for social benefit in accordance with the ways and goals set by Allah SWT.

Management of zakat, infaq, and alms funds in the view of Shari'ah Enterprise Theory emphasizes the amil to be aware of the mandate given. Transparent and accountable accountability reports to the *muzakki* (people who pay zakat) and the general public, as well as targeted services to the ummah are carried out not only for reasons of social responsibility but also aware of divine responsibility as the highest form of accountability for every human behavior as the embodiment of spiritual accountability.

Amil Institution (Zakat Management Organization)

Amil zakat is a person who is chosen by the leader of a region to collect zakat to be distributed to parties who are shariah entitled to receive it (mustahik). Amil zakat can be done by individuals or groups/organizations. There are three types of zakat managers in Indonesia, namely, first is the National Amil Zakat Agency (BAZNAS) which is formed by the government at the central, provincial, and city/district levels. Second, the Amil Zakat Institution was formed at the initiative of the community after obtaining permission from BAZNAS. Third, individual or group zakat amil in an area that has not been reached by the district National Amil Zakat Agency or Amil Zakat Institution that has obtained the approval of the local government (Luthfi, 2018). The Amil Zakat Institution is a term for an organization or institution that manages zakat funds which are established and managed independently by a registered community, either as an Islamic community organization, a philanthropic institution, or a foundation that has obtained government permission to manage zakat, infaq, and alms funds.

The amil institutions in several countries also have different characteristics and management policies. First, zakat is managed by the state by a certain department. This model gives legitimacy to the government to withdraw zakat from the assets of the Muslim community directly as an obligation. This zakat obligation is the same as tax obligations in secular countries (Kuba, 2015). This zakat management model is applied in several countries, such as Saudi Arabia, Sudan, Pakistan, Kuwait, and Jordan (Setyani et al., 2020). Second, zakat is managed by civil society without any government intervention. Third, both the government and the Muslim community can act as amil zakat without any rules requiring zakat payment but on the awareness of a Muslim in paying zakat. There are several factors why the zakat management model of a country is different from other countries, including the number of Muslim populations in a country, government regulations, and social and cultural problems of the local community (Ezril, 2019).

Efficiency Concept

Efficiency can be interpreted as not wasteful. The concept of efficiency is a description of the performance of a production unit with a minimum level of expenditure that can produce a certain number of products (Farrel, 1957). Meanwhile, according to Mulyadi (2007), efficiency is the accuracy of the way of working in doing something without any sacrifice of time, effort, and excessive costs, which are often associated with the performance of an organization because it reflects the ratio between input and output or expenditure and profits that can be obtained. A company can be called achieving efficiency when compared to other similar companies, the quantity of input used is less for the production of output with the same quantity, or the quantity of input used is the same as other similar companies. Still, it can produce output with a larger quantity. Therefore, efficiency is important as a measuring tool in assessing operations and is one indicator of a company's success compared to similar companies/industries (Wheelock & Wilson, 1996).

Efficiency Level Measurement Using Data Envelopment Analysis (DEA)

To measure the efficiency level of financial institutions, three approaches can be used, namely:

ratio approach, regression approach, and frontier approach (Muharam & Pusvitasari, 2007). The frontier approach is divided into two types, namely parametric and non-parametric approaches. The parametric frontier approach uses parametric statistical tests in measuring the level of efficiencies such as using the Stochastic Frontier Approach and Distribution Free Approach methods. While the non-parametric frontier approach uses non-parametric statistical tests, namely the Data Envelopment Analysis method. The approach that will be used in this research is Data Envelopment Analysis with the consideration that DEA programming can involve several input and output variables without determining the weight of each variable first and without explaining the functional relationship between variables as in the regression model (Yaumidin, 2007).

Data Envelopment Analysis (DEA) is a method used to measure the efficiency level of a work unit with a non-parametric approach. The non-parametric approach is a statistical test that does not specify the requirements regarding the characteristics of the parent population nor is there an obligation to fulfill the assumption of normal data. The DEA approach focuses on evaluating the performance of work units (companies) called Decision Making Units. Further analysis is based on an evaluation of the relative efficiency of comparable DMUs. The efficiency score is expressed in a positive (not negative) value, which is between a value of 0 and 1 with a perfect efficiency of 1 or 100%.

The relationship between input and output in measuring the efficiency of a financial institution with a frontier approach, parametric or non-parametric methods generally use three approaches (Haddad et al. 2003), namely: asset approach, production approach, and intermediation approach. The approach that will be used in this research is the production approach because *amil zakat* is defined as a producer who manages the collected and distributed *ziswa* funds. In addition, the production approach can be used to assess the performance of managing operational costs that arise in the activity of receiving and distributing *ziswa* funds (Subardi et al., 2020). Efficiency in the production process is measured using DEA to determine which parts of the performance are inefficient for further improvement.

DEA has advantages such as being able to accommodate multiple inputs and multiple outputs so that the results of efficiency measurements can be more accurate (Husain et al., 2000). In addition, DEA does not require the assumption of a functional relationship between input and output variables. The drawbacks of DEA are that it only measures the relative productivity of a unit not absolute productivity and it is difficult to statistically test hypotheses on the measurement results obtained (Adeabah et al., 2019; Awaluddin et al., 2019).

Effectiveness Concept

Effectiveness comes from the word effective which means to influence or bring results. In contrast to efficiency, effectiveness focuses on the results that have been achieved while efficiency focuses on the process of how to achieve these results. Effectiveness refers to the ability of the work unit to achieve its goals. McGill (1993) states that effectiveness is the level of organizational achievement in achieving goals, namely the extent to which the goals that have been set can be achieved. Effectiveness for most organizations is a measure of maximizing goals and maximizing goal attainment.

Performance measurement based on the effectiveness of an institution is very important to do to provide an overview of the extent to which the organization is achieving its goals. The function of effectiveness is an essential function that must be carried out by organizational management. The inability of management to carry out the function of effectiveness will cause problems in the organization's operations which lead to the death of the organization slowly. The focus of the effectiveness assessment in this study is the distribution of ziswaf funds received and managed by amil institutions.

Measurement of Effectiveness Based on Allocation to Collection Ratio (ACR)

One of the important indicators in measuring the financial performance of amil zakat institutions based on the level of effectiveness is the management of distribution and distribution of ziswaf funds. Amil management must have clear policies, strategies, and distribution systems in managing funds. Distribution and distribution management is recommended by BAZNAS & Bank Indonesia (2016) as one of the basic principles in the utilization and distribution of zakat funds by amil institutions both on a national and global scale. The recommendation consists of several important criteria so that amil institutions achieve good management of distribution and distribution of funds.

The Allocation to Collection Ratio approach is one of the criteria for measuring the extent to which amil institutions distribute ziswaf funds. Allocation to Collection Ratio is used to measure the ability of amil institutions to distribute zakat, infaq, alms, and waqaf (ziswaf) to beneficiaries. The effectiveness calculation analysis can be formulated as follows:

$$\text{Effectiveness} = \frac{\text{realization of ziswaf fund distribution}}{\text{target of ziswaf fund distribution}} \%$$

Source: BAZNAS & Bank Indonesia (2016)

RESEARCH METHOD

This study focuses on calculating the level of efficiency and effectiveness to measure and analyze the performance of amil institutions in Indonesia, Singapore, and England from 2017 to 2020. The amil institution that is the object of research is Dompot Dhuafa Republika (<https://publikasi.dompetchuafa.org/>) from Indonesia, Majlis Ugama Islam Singapura (<https://www.muis.gov.sg/>) from Singapore (MUIS), and the National Zakat Foundation (<https://www.muis.gov.sg/>) from England (NZF). Indonesia, Singapore, and England were chosen in this study because they are members of the World Zakat Forum who have the same goal of actively contributing to solving world economic problems. The three amil institutions were selected using a purposive sampling method with criteria for amil institutions that consistently publish annual reports that present financial reports for 2017 to 2020 and amil institutions that are officially registered in each country, both amil institutions managed by the government or non-governmental amil institutions. The four-year range is set and is considered sufficient to analyze and compare the efficiency and effective-ness of amil institutions before

the covid-19 pandemic (2017 – 2019) and when covid-19 spreads (in 2020).

The research method used is a quantitative approach where the efficiency level of amil institutions is measured using the Data Envelopment Analysis method, which is a non-parametric statistical approach used in calculating the relative efficiency of Decision-Making Units (Grmanová & Ivanová, 2018; Laila et al., 2018). The DEA approach requires data on the weighted average of the output variables against the weighted average of the inputs. The formula for calculating DEA can be expressed in the following equation:

$$Es = \frac{\sum_{i=1}^m U_i Y_{is}}{\sum_{j=1}^n V_j X_{js}}$$

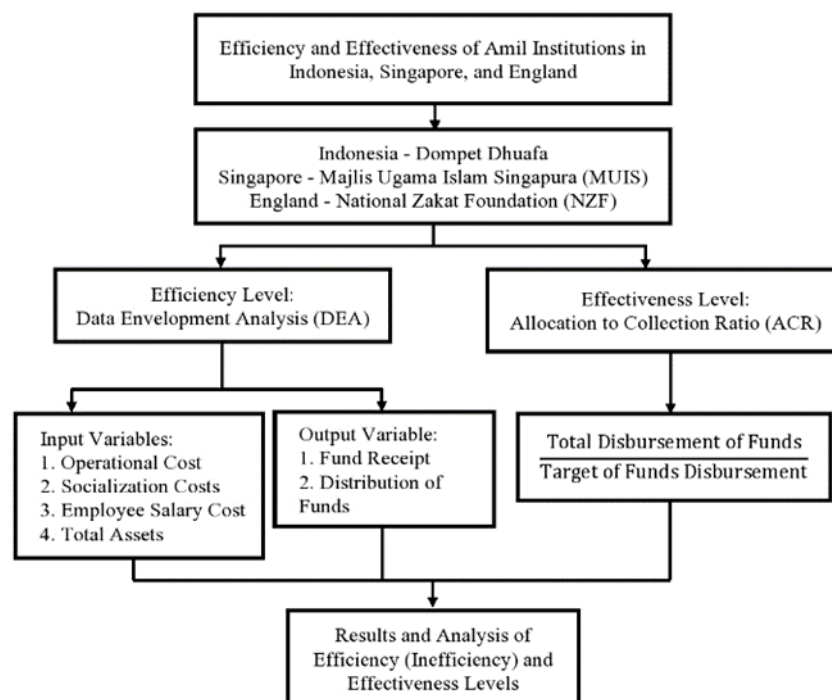
Information:

- Es = LAZ efficiency s
- m = observed LAZ s output
- n = input LAZ s observed
- Yis = number of i output produced
- Xjs = number of j inputs generated
- Ui = s × 1 number of outputs
- Vj = s × 1 number of inputs

Source: Sidang & Feriyanto (2021)

Figure 2 depicts is the framework for this research which describes the flow of the researcher's thinking in writing this article:

Figure 2
Research Framework



Decision-Making Unit is an operational unit whose efficiency level is calculated in this case

the amil zakat institution. The variables needed to calculate DEA are input and output variables. The determination of input and output variables in this study uses a production approach by defining amil zakat as a producer who manages received and distributed ziswaf funds. The input variables used are operational costs, socialization costs, employee salary costs, and total assets, while the output variables are the amount of fund receipts and funds disbursement. The software used to measure DEA is DEAP 2.1. While the measurement of the level of effectiveness used the Allocation to Collection Ratio approach, which is a comparison of the total realized funds distributed with the total target distribution of funds in the study period. The following is the operationalization of the input and output variables in this study.

RESULTS AND DISCUSSION

Data Description

This study focuses on measuring performance based on the level of efficiency and effectiveness of Dompot Dhuafa, MUIS, and NZF. The input variables used to measure the level of efficiency using DEA are Operational Costs, Socialization Costs, Employee Salary Costs, and Total Assets.

Table 1

Operational Cost, Socialization Cost, Employee Salary Cost, and Total Assets of Dompot Dhuafa, MUIS, and NZF for the Period 2017-2020

Input Variables	2017	2018	2019	2020
Dompot Dhuafa (in IDR 000)				
Operational Costs	11,418,978	15,651,441	16,783,519	10,905,846
Socialization Costs	21,051,685	23,359,284	10,539,388	8,914,068
Employee Salary Costs	19,775,724	21,684,635	26,214,044	29,261,679
Total Assets	332,080,602	381,904,317	368,626,529	423,284,288
MUIS (in SGD)				
Operational Costs	3,368,000	3,730,000	3,343,000	1,725,000
Socialization Costs	700,000	442,000	1,095,000	551,000
Employee Salary Costs	7,886,000	8,367,000	8,893,000	9,734,000
Total Assets	42,485,000	45,462,000	47,703,000	54,608,000
NZF (in GBP £)				
Operational Costs	397,456	239,154	211,987	203,400
Socialization Costs	157,279	272,587	234,283	321,760
Employee Salary Costs	766,266	810,466	507,121	573,398
Total Assets	2,270,021	2,333,038	1,828,843	2,919,385

Source: Dompot Dhuafa, MUIS, and NZF (2020)

Table 1 shows the total operational costs, socialization costs, and employee salary costs incurred by each amil institution for the smooth distribution of zakat, infaq, and alms funds from

2017 to 2020. The total costs incurred fluctuate from year to year. In addition, the number of assets managed by each amil institution has increased from year to year. The output variables used in measuring the level of efficiency with the DEA approach are the number of funds received and the distribution of zakat, infaq, and alms funds for each amil institution.

Table 2

Total Fund Receipts and Fund Distribution of Dompot Dhuafa, MUIS, and NZF for the Period 2017-2020

Output Variables	2017	2018	2019	2020
Dompot Dhuafa (in IDR 000)				
Fund Receipts	273,475,384	325,236,917	397,245,041	412,826,039
Funds Disbursement	242,936,025	276,758,388	401,258,449	353,826,518
MUIS (in SGD)				
Fund Receipts	44,204,000	42,974,000	46,505,000	51,975,000
Funds Disbursement	43,782,000	42,925,000	45,371,000	50,117,000
NZF (in GBP £)				
Fund Receipts	4,929,383	4,629,679	3,798,373	6,337,182
Funds Disbursement	4,759,980	4,535,295	4,268,454	5,219,342

Source: Dompot Dhuafa, MUIS, and NZF (2020)

Table 2 shows that the number of funds received from Dompot Dhuafa, MUIS, and NZF increased from 2017 to 2020. Meanwhile, the number of funds distributed fluctuated from year to year where not all of the total funds received was directly distributed in the same year.

Analysis and Discussion

Based on the results of the calculation of the efficiency level of Dompot Dhuafa, Majelis Ugama Islam Singapura, and National Zakat Foundation using DEA, it is presented in Table 3.

Table 3

Results of DEA Efficiency Calculations for Amil Zakat Institutions in Indonesia, Singapore, and England for the 2017 – 2020 Period

Year	DEA Efficiency Score			Description
	Dompot Dhuafa	MUIS	NZF	
2017	92.80%	100.00%	100.00%	Before Covid-19
2018	99.00%	100.00%	93.40%	Before Covid-19
2019	100.00%	95.30%	100.00%	Before Covid-19
2020	100.00%	100.00%	100.00%	Covid-19 Pandemic

Source: Data processed (2022)

Table 3 shows the results of calculating the efficiency level of the three amil zakat institutions from each country before and during the Covid-19 pandemic. Dompot Dhuafa experienced inefficiency for two consecutive years, namely in 2017 by 92.80% and in 2018 by

99.00%. In 2019 and 2020 Dompot Dhuafa was calculated to have an optimal efficiency of 100.00%. MUIS achieved optimal efficiency in 2017, 2018, and 2020 but experienced 95.30% inefficiency in 2019. Meanwhile, NZF experienced inefficiency in 2018 and achieved optimal efficiency in 2017, 2018, and 2020. Meanwhile, the performance of Dompot Dhuafa, the Singapore Islamic Religious Council, and the National Zakat Foundation based on the level of effectiveness using the Allocation to Collection Ratio approach in distributing zakat, infaq, and alms funds can be seen in [Table 4](#).

Table 4

The Effectiveness of Amil Zakat Institutions in Indonesia, Singapore, and England for the Period 2017 – 2020

Year	ACR Value			Description
	Dompot Dhuafa	MUIS	NZF	
2017	88.83%	99.05%	96.56%	Before Covid-19
2018	85.09%	99.89%	97.96%	Before Covid-19
2019	101.01%	97.56%	112.38%	Before Covid-19
2020	85.71%	96.43%	82.36%	Covid-19 Pandemic

Source: Data processed (2022)

Based on Table 4, the effectiveness level (ACR) of Dompot Dhuafa from 2017 to 2020 fluctuated. In 2017, the effectiveness of the distribution of funds by Dompot Dhuafa was recorded at 88.83%, which means that of the total receipts of zakat, infaq, and alms funds obtained from donors, the number of funds that were successfully distributed reached 88.83%. Dompot Dhuafa achieved the highest ACR value in 2019 at 101.01% and decreased in 2020 to 85.71%. The MUIS ACR value from 2017 to 2020 has decreased but has a very good effectiveness value above 90% yearly. The NZF has an ACR value that increased from 2017 to 2019 and decreased by 82.36% when COVID-19 began to spread in England.

The performance assessment of Dompot Dhuafa in distributing zakat, infaq, and alms funds seen from the level of efficiency based on DEA calculations and the level of effectiveness based on the ACR approach from 2017 to 2020 can be seen in [Table 5](#).

Table 5

Dompot Dhuafa Performance Based on Efficiency and Effectiveness Levels for the 2017 – 2020 Period

Year	Efficiency Score	Results	Effectiveness Value	Results
2017	92.80%	Inefficient	88.83%	Effective
2018	99.00%	Inefficient	85.09%	Effective
2019	100.00%	Fully Efficient	101.01%	Highly Effective
2020	100.00%	Fully Efficient	85.71%	Effective

Source: Data processed (2022)

Based on the results of measuring the efficiency level using DEA, Dompot Dhuafa in

managing zakat, infaq, and alms funds achieved optimal efficiency in 2019 and 2020 and experienced inefficiency in 2017 of 92.80% and 2018 of 99.00%. This means that Dompot Dhuafa's performance during the COVID-19 pandemic is more efficient than in the pre-pandemic period. The cause of the performance of Dompot Dhuafa experiencing inefficiency in 2017 and 2018 is due to several factors, including the large ratio of the total costs incurred by Dompot Dhuafa to channel funds compared to the total receipts of zakat, infaq, and alms funds of 19.10% in 2017 and 18, 66% in 2018. This ratio is higher than in 2019 at 13.48% and in 2020 only at 11.89%. If sorting the number of fees used by Dompot Dhuafa to distribute funds comes from the Socialization Fees of 40.29% (in 2017) and 38.49% (in 2018), Employee Salary Costs of 37.85% (in 2017) and 35.73% (in 2018), and Operating Costs of 21.86% (in 2017) and 25.79% (in 2018). Meanwhile, Dompot Dhuafa's performance is seen from the effectiveness of the distribution of funds, reaching an effective value in 2017, 2018, and 2020 and reaching the highest effective value, namely the distribution of funds above 90% of the total funds collected in 2019.

Dompot Dhuafa suffered from inefficiency in 2017 and 2018 due to several factors. Based on DEA calculations, some variables do not reach the target value so they experience inefficiency. The target value is an indicator that must be achieved so that performance is expected to reach a perfect efficiency level. [Table 6](#) explains the data on the achievement of Dompot Dhuafa's target value in 2017 and 2018.

Table 6

Original Value and Target Value of Dompot Dhuafa with Inefficiency Level of 92.80% in 2017 and 99.00% in 2018 (in millions IDR)

Variable	Original Value	Target Value	Improvement Target
The Year 2017:			
Fund Receipts	273,475	294,825	7.24%
Funds Disbursement	242,936	287,775	15.58%
Operational Costs	11,419	11,419	0.00%
Socialization Costs	21,052	7,498	-180.76%
Employee Salary Costs	19,776	19,776	0.00%
Total Assets	332,081	279,967	-18.61%
The Year 2018:			
Fund Receipts	325,237	328,613	1.03%
Funds Disbursement	276,758	331,933	16.62%
Operational Costs	15,651	13,884	-12.73%
Socialization Costs	23,359	8,718	-167.94%
Employee Salary Costs	21,685	21,685	0.00%
Total Assets	381,904	304,939	-25.24%

Source: Data processed (2022)

Dompot Dhuafa in 2017 experienced inefficiency due to low receipts and distribution of funds and high costs of socialization and total assets from the projected target value of DEA calculations to achieve an efficient performance. Improvements are needed by setting a projected target value of fund receipts of IDR 294.83 billion or an increase in fund receipts of 7.24% from the actual receipt of funds. The target value for disbursement of funds is projected at IDR 287.78 billion or an increase in the distribution of funds by 15.58% from the actual disbursement of funds is re-quired. The projected target value of socialization costs is IDR 7.50 billion or a cost reduction of 180.76% is required from the actual socialization costs. Total assets are considered large enough so that the target value of total assets is projected at IDR 279.97 billion or an asset reduction of 18.61% is required from the actual total as-sets, which can be done by increasing the distribution of funds.

Meanwhile, in 2018, Dompot Dhuafa experienced inefficiency due to low receipts and distribution of funds and high operational costs, socialization costs, and total assets from the target value suggested by DEA calculations. Therefore, to achieve efficiency, improvements are needed by increasing the receipt of funds with a target value of IDR 328.61 billion or an increase of 1.03% from the actual receipt of funds. The increase in the disbursement of funds is also considered low so improvements are needed by increasing the distribution of funds with a target value of IDR 331.93 billion or an increase in the distribution of 16.62% of the total actual disbursement of funds. Operational costs and socialization costs are considered quite large, so a reduction in operational costs is needed with a target value of IDR 13.88 billion or 12.73% lower than the actual operational costs, and a reduction in socialization costs with a target value of IDR 8.72 billion or 167.94% lower than the total cost of socialization actual. Total assets are also considered high, so a reduction in total assets is needed, with a target value of IDR 304.94 billion or 25.24% lower than the actual total assets, which can be done by increasing the distribution of funds. On the other hand, Dompot Dhuafa achieved efficient performance in 2019 and 2020 because all input and output variables reached the target value, which indicates that management can maximize existing inputs to achieve output more effectively and efficiently.

Dompot Dhuafa's receipts were obtained from several sources, including zakat funds, unrestricted infaq, bound infaq, qurban funds, waqf, humanitarian funds, profit sharing, etc. The low receipts of funds in 2017 were due to a decrease in revenue sources compared to the previous period, including a decrease in infaq funds, qurban funds, and profit sharing. A decrease in infaq funds by 10.07% where in 2016 received infaq funds of IDR 36.74 billion decreased to IDR 33.04 billion in 2017. A decrease in qurban funds by 7.71% where funds were obtained in the amount of IDR 29.47 billion in 2016 decreased to IDR 27.20 billion in 2017. Revenue-sharing decreased significantly by 46.44%, of which the profit-sharing was IDR 2.06 billion in 2016 down to IDR 1.11 billion in 2017. The decline in the distribution of Dompot Dhuafa funds in 2017 was due to a decrease in several distribution programs from the previous year, among others, education programs decreased by 26.76%, whereas in 2016 funds were distributed by IDR 58 billion, economic programs decreased by 4.79% where previously IDR 59.42 billion was disbursed to IDR 56.57 billion, and advocacy programs fell 49.65% where in 2016 it was distributed funds amounted to IDR 5.65 billion to IDR 3.07 billion in 2017.

On the other hand, the large number of socialization costs for Dompot Dhuafa in 2017 was due to the addition of types of costs in the form of database fees and an increase in almost all types of socialization cost items compared to 2016 including promotion and advertising costs increased by 26.37%, event costs increased by 29.20%, socialization operations increased by 197.94%, volunteer fees increased by 34.62%, and counter service fees increased by 0.72%. Meanwhile, the number of total assets of Dompot Dhuafa in 2017 was due to an increase in the balance of funds compared to 2016 including the balance of waqf funds which increased by 8.71% from IDR 141.30 billion to IDR 153.60 billion in 2017, the balance of zakat funds increased by 53.30%, balance in 2016 amounted to IDR 46.25 billion to IDR 70.90 billion in 2017, as well as an increase in the balance of humanitarian funds by 20.46% where the balance in 2016 was IDR 19.70 billion to IDR 23.73 billion in 2017. In addition, the ratio of total costs to receipts of funds in 2017 was 0.191 or 19.10% where this figure was the highest ratio of the research period. The ratio explains that of the total actual fund receipts of IDR 273.475 billion, Dompot Dhuafa uses 19.10% for operational costs, socialization costs, and employee salary costs.

The low acceptance of Dompot Dhuafa funds in 2018 was due to a 6.16% decrease in receipt of bound infaq funds where in 2017 funds were received by IDR 29.12 billion to IDR 27.32 billion in 2018 as well as a decrease in other receipts by 54.28% to IDR 573.03 million compared to 2017 IDR 1.25 billion. The low disbursement of funds was also due to a decrease in the disbursement of funds, including the education program, which decreased by 0.28% to IDR 42.36 billion, and the distribution of economic programs decreased by 0.45% to IDR 56.31 billion in 2018. On the other hand, the amount of Dompot Dhuafa's operational costs in 2018 was due to an increase in total maintenance costs by 131.86% to IDR 2.36 billion, an increase in general and administrative costs by 30.17% to IDR 8.29 billion, and an increase in amortization costs by 6.76% to IDR 2.10 billion in 2018. Socialization costs also increased in 2018 due to increases in all types of socialization costs, among others, promotion costs increased by 52.64% to IDR 14.05 billion, event costs increased by 94.36% to IDR 5.80 billion, operational costs socialization rose 33.12% to IDR 2.22 billion. Database costs rose very significantly where the previous period was only IDR 4.59 million to IDR 682.76 million. Meanwhile, the total assets of Dompot Dhuafa in 2018 were due to an increase in the balance of waqf funds by 17.12% to IDR 179.90 billion, the balance of zakat funds increase by 35.08% to IDR 95.78 billion, and an increase in the balance of humanitarian funds by 60.80% to IDR 38.15 billion in 2018. In addition, the ratio of total costs to receipts of funds in 2018 was recorded at 0.1866, which means that of the total actual receipts of funds of IDR 325.237 billion, 18.66% was used to finance the operational needs of Dompot Dhuafa in 2018.

MUIS performance assessment in managing zakat, infaq, and alms funds seen from the level of efficiency based on DEA calculations and the level of effectiveness based on the ACR approach from 2017 to 2020 can be seen in [Table 7](#). In [Table 7](#), MUIS achieved optimal efficient performance in 2017, 2018, and 2020, while in 2019 it was 95.30% inefficient in managing the funds received. This means that during the COVID-19 pandemic MUIS achieved an efficient performance compared to the pre-pandemic period, especially in 2019. The inefficient performance of MUIS in 2019 was due to the large cost required by MUIS in disbursing funds,

which was 28.67% of the total receipt of funds. Although this amount is lower than the previous period, which reached 29.18%, if viewed from the effectiveness of the distribution of funds, MUIS distributed fewer funds than in 2018. The number of costs incurred by MUIS in distributing zakat, infaq, and alms funds, if sorted from the largest amount, came from Employee Salary Costs of 66.71%, Operational Costs of 25.08%, and Socialization Costs of 8.21%. However, in general, the effectiveness of MUIS in distributing zakat, infaq, and alms funds is very good because it has reached the highest effective level for four consecutive years, even during the COVID-19 pandemic.

Table 7
MUIS Performance Based on Efficiency and Effectiveness Levels for the 2017 – 2020 Period

Year	Efficiency Score	Results	Effectiveness Value	Results
2017	100.00%	Fully Efficient	99.05%	Highly Effective
2018	100.00%	Fully Efficient	99.89%	Highly Effective
2019	95.30%	Inefficient	97.56%	Highly Effective
2020	100.00%	Fully Efficient	96.43%	Highly Effective

Source: Data processed (2022)

MUIS in 2019 experienced inefficiency in using DEA because several variables did not reach the target value. The data in [Table 8](#) shows the achievement of the 2019 MUIS target value.

Table 8
MUIS Original Value and Target Value with Inefficiency Level of 95.30% in 2019 (in SGD\$)

Variables	Original Value	Target Value	Improvement Target
Fund Receipts	46,505,000	48,817,397	4.74%
Funds Disbursement	45,371,000	48,121,955	5.72%
Operational Costs	3,343,000	3,343,000	0.00%
Socialization Costs	1,095,000	727,227	-50.57%
Employee Salary Costs	8,893,000	8,786,797	-1.21%
Total Assets	47,703,000	47,703,000	0.00%

Source: Data processed (2022)

MUIS had an inefficient performance in 2019 due to variables that did not reach the target value shown in [Table 8](#), including receipts of funds, distribution of funds, socialization costs, and salary costs. To achieve effective performance, these variables must reach the target value projected by the DEA calculation. The target value of fund receipts is projected to be \$48.82 million, or an increase in revenue of 4.74% from the actual receipt of funds is required. The target value of disbursement of funds is projected at \$48.12 million, or an increase in the disbursement of 5.72% of funds is required from the actual disbursement of funds. Furthermore, the target value of socialization costs is projected to be \$727.227, or a reduction of 50.57% of the actual socialization costs is required. The cost of employee salaries is also considered too high so a

reduction of 1.21% is needed with a target value of \$8.79 million. On the other hand, MUIS achieved efficient performance in 2017, 2018, and 2020 because all input and output variables reached the target value, which indicates that MUIS management can maximize existing inputs to achieve output more effectively and efficiently.

MUIS fund receipts in 2019 were sourced from zakat fitrah funds of \$4.04 million and zakat assets of \$42.47 million. Although this number increased from last year, the actual value of fund receipts was still considered low due to an increase in all input variables in that year. The distribution of funds in 2019 also increased from 5.70% in 2018, which was channeled through the distribution program. On the input side, the cost of employee salaries has increased from the previous year. The increase in employee salary costs came from salaries and staff-related costs, which increased by 4.21%, and also came from the employer's contributions to defined contribution plans, including the Central Provident Fund, which increased by 19.49% from the previous year. In addition, the ratio of total costs to total MUIS fund receipts in 2019 is also large, namely 28.67%. The ratio explains that of the total receipts of funds received in 2019, MUIS allocated 28.67% for operational expenditures to support the fund distribution program.

NZF's performance based on the level of efficiency using the DEA approach and the level of effectiveness with the ACR from 2017 to 2020 can be seen in [Table 9](#). NZF's performance before the pandemic reached optimal efficiency in 2017 and 2019 and experienced inefficiency in 2018 of 93.40%. Meanwhile, in 2020, NZF's performance reached optimal efficiency. NZF's inefficiency performance in 2018 was due to the large ratio between the costs used in distribution compared to the total receipts of zakat, infaq, and alms funds of 28.56% used for Employee Salary Costs (61.30%), Socialization Costs (20.62%), and Operating Costs (18.09%). And when viewed in terms of the effectiveness of the distribution of funds, NZF reached the highest effective value (highly effective) before the covid-19 pandemic, namely in 2017, 2018, and 2019. While in 2020 (covid-19 pandemic) the value of the effectiveness of distribution only reached 82.36%.

Table 9
NZF Performance Based on Efficiency and Effectiveness Levels for the 2017 – 2020 Period

Year	Efficiency Score	Results	Effectiveness Value	Results
2017	100.00%	Fully Efficient	96.56%	Highly Effective
2018	93.40%	Inefficient	97.96%	Highly Effective
2019	100.00%	Fully Efficient	112.38%	Highly Effective
2020	100.00%	Fully Efficient	82.36%	Effective

Source: Data processed (2022)

Four variables did not reach the target value so NZF in 2018 was inefficient based on DEA calculations. The data in [Table 10](#) shows achievement of the target value in 2018. NZF's inefficiency in 2018 was due to low fund receipts, so an increase in revenue was needed by setting a target value of £4.96 million to achieve an efficient performance. This can be done by increasing the receipt of funds by 6.64% of the actual receipt of funds in 2018. The distribution

of funds is also considered to be still low so to increase efficiency it is necessary to set a target value of disbursement of funds of £4.86 million which means that the distribution of funds needs to be in-creased by 6.64% of the total actual disbursement of funds in 2018. On the input side, the cost of socialization is still considered high, so to improve efficiency it is necessary to reduce costs by setting a target value of socialization costs of £267,745 or a decrease of 1.81% from the actual cost of socialization. In addition, employee salary costs are considered very high so the target value is set at £582,157 or down 39.22% from actual salary costs in 2018. On the other hand, the National Zakat Foundation achieved efficient performance in 2017, 2018, and 2020 because all in-put and output variables reached the target value, which indicates that NZF management can maximize existing inputs to achieve output more effectively and efficiently.

Table 10

Original Value and Target Value of NZF with Inefficiency Level of 93.40% in 2018 (in GBP£)

Variable	Original Value	Target Value	Improvement Target
Fund Receipts	4,629,679	4,958,970	6.64%
Funds Disbursement	4,535,295	4,857,873	6.64%
Operational Costs	239,154	239,154	0.00%
Socialization Costs	272,587	267,745	-1.81%
Employee Salary Costs	810,466	582,157	-39.22%
Total Assets	2,333,038	2,333,038	0.00%

Source: Data processed (2022)

NZF fund receipts decreased in 2018 due to a decrease in receipts from several types of fund receipts, including alms funds, gift assistance, and income assistance. Alms raised in 2018 decreased by 35.05% to £692,558 from £1.07 million in 2017. Gift aid from £502,437 decreased 8.91% to £457,672 in 2018, and income assistance from £105,000 in 2017 down 38.10% to £65,000 in 2018. In addition, in 2018, NZF had a total cost-to-fund receipt ratio of 28.56%, which means that of the total funds received by NZF, 28.56% was used for operational expenses. This ratio is the highest in the research period and is sufficient to cause inefficiency in fund management.

CONCLUSION

The results of efficiency measurements based on the DEA approach, both Dompot Dhuafa, MUIS, and NZF achieved optimal efficient performance during the covid-19 pandemic (in 2020) but the three amil institutions experienced inefficiency in the pe-riod before the covid-19 pandemic, namely 2017 (Dompot Dhuafa), 2018 (Dompot Dhuafa & NZF), and 2019 (MUIS). Meanwhile, if assessed based on the effective-ness of the ACR approach, both Dompot Dhuafa, MUIS, and NZF achieved effective values both before and during the COVID-19 pandemic. Several factors cause amil zakat institutions to experience inefficient performance, including the low acceptance of funds and distribution of funds by amil zakat institutions which are not proportional to the use of large operational costs. On the other hand, the use of fees by amil institutions is too large

such as socialization costs (at Dompot Dhuafa, MUIS, & NZF), operational costs (at Dompot Dhuafa), and employee salary costs (at MUIS & NZF) so they are considered inefficient in their work. In addition, the number of assets owned by amil institutions is also considered too large (at Dompot Dhuafa) so that professional asset management is needed and an increase in the distribution of zakat, infaq, and alms funds so that the funds collected are truly felt by many people.

The results of this study can be used as evaluation material for amil institutions, the government in granting permits, and the Muslim community in general to assess the performance of amil institutions in managing the zakat, infaq, and alms funds they receive and provide a new perspective for the development of Islamic finance in particular amil zakat institutions in the world. The limitation of this study is the relatively short performance assessment during the COVID-19 pandemic, which is only a year due to limited access to financial reports of amil zakat. Suggestions for further research to be able to increase the period of time during the covid-19 pandemic and the number of amil institutions from various countries to complete and add to the results of research on the performance of amil zakat institutions.

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