The Influence of Internal and External Factors Towards Zakat Collection of Indonesia National Board of Zakat

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Abstract

Zakat is an obligation for the property of Muslims to be given to specific recipients (mustahik). Although a large number of Muslim population makes the potential of zakat Indonesia high, the amount of zakat collected by Indonesia national board of Zakat (BAZNAS) in 2018 is only 0.06 per cent of the total potential of 233.8 trillion rupiah. This research is conducted to analyze the influence of internal and external factors towards zakat collection of BAZNAS in order to analyze the effect of variable shocks from internal and external factors, as well as to explore the contribution of each variable in explaining the variance of zakat collection. Vector Error Correction Model is used to analyze the monthly data from January 2011 to December 2018. The results show that the zakat collection unit, digital zakat payment, and gold price have no significant effect on the zakat collection of BAZNAS. Shocks of the cost of publication and documentation, Industrial Production Index (IPI), Bank Indonesia’s rate are responded positively by BAZNAS zakat collection. In contrast, the Consumer Price Index shock is responded negatively by the BAZNAS zakat collection. IPI is an external factor that has the most significant contribution in explaining the variance of Central BAZNAS collected zakat funds.

Keywords: BAZNAS, digital zakat payment, IPI, VECM, zakat collection

Introduction

Zakat is an obligation on the assets of Muslims or companies that have fulfilled the requirements to be distributed to the recipients, as stated in Islamic law (UU No. 23 of 2011). Saad et al. (2014) define zakat as an essential instrument for developing countries since it helps to reduce the gap between the rich and the poor, as well as to strengthen economic independence.

In Indonesia, zakat collection has been expended tremendously since 1999, when the Zakat Management Act was established for the first time. Since then, the legislation has been renewed in 2011 and the government has been actively involved in the management of zakat. It suggests that zakat has the economic potential to become an economic instrument which capable of achieving the welfare of society and overcoming poverty.

The National Board of Zakat (BAZNAS) is the official and the only body designated by the Government to perform the duties and functions of the Zakat administration in Indonesia. Since its establishment, BAZNAS has shown its success in collecting zakat funds, as shown by an increase in the amount of zakat funds collected each year (Figure 1).
Besides, the increase in the amount of collected zakat funds by BAZNAS during the period 2011 to 2018 turned out to be still far below its potential in Indonesia. Based on the results of research by Pusat Kajian Strategies (Puskas) BAZNAS (2019), it was argued that the total potential of zakat in Indonesia based on the Zakat Potential Mapping Indicator (IPPI) portion is Rp233.8 trillion (more than USD 16 billion). This is equal to 1.72 per cent of Indonesia's GDP in 2017, which amounted to Rp13.488.8 trillion (a little less than USD 1 trillion). This ability is also supported by the Indonesian community, which is dominated by Muslims. According to data from the Pew Research Center (2019), Indonesia has a Muslim population of 219.96 million, or 87.1% of Indonesia's total population in 2015. However, this potential is not compatible with the realization of the total national zakat funds raised, which only hit 1.79 per cent of its potential (National Zakat Statistics 2017) while the realization of the BAZNAS raised zakat funds only reaches 0.06 per cent of its total potential.

Based on national zakat statistics from 2015 to 2017 (Figure 2), the amount of zakat collection by Central BAZNAS was still lower than the amount of zakat collection by private zakat institutions (LAZ). Whereas legally, the decisive role of BAZNAS in managing national zakat is also supported by President Instruction (Inpres) No. 03 of 2014 which states that government agencies need to facilitate their Muslim employees to channel their zakat through BAZNAS. Therefore, BAZNAS has a definite task to collect zakat funds from Muslim employees in government agencies. With the certainty of zakat collection from Muslim in the public sector, it is supposed to make zakat collection by Central BAZNAS higher than other zakat institutions. By the fact of zakat collection amount by Central, BAZNAS is still far lower than the amount of zakat collection by LAZ from 2015 to 2017 is considered as a problem.

According to the results of research by Vendi (2014), Anam (2012), Novianti (2019), and Mukhlis and Beik (2013), organizational factors such as the existence of socialization and publication, transparency, accessibility as well as the excellent service for muzakki affected the community in carrying out zakat. The result of Coryna and Tanjung's research (2015) also states that as an effort to increase the zakat collection by BAZNAS, several alternative strategic steps could be taken, one of which was strengthening alliances to facilitate employees in channeling zakat through BAZNAS. In addition, the result of research by Afandi (2018) showed that economic performance in Indonesia influenced the collection of national zakat funds.

Thus, zakat collection of BAZNAS is lower than zakat collection by LAZ. Furthermore, those studies suggested the imbalance between the potential and the realization of zakat can be caused by BAZNAS internal and external factors in collecting zakat funds. This study aims to analyze the influence of internal factors (publication and documentation costs, UPZ dummy, and digital dummy) and external (IPI, CPI, world gold prices, and BI’s rate) on collecting zakat funds by BAZNAS, to analyze the response of zakat collection by BAZNAS variables to the shocks simulated from internal
and external factors, as well as to analyze the contribution of each variable in explaining the variance of Central BAZNAS zakat collection funds.

Methodology

This study uses secondary data types obtained from BAZNAS, Badan Pusat Statistik (BPS), World Bank and Bank Indonesia (BI). Research is also supported by data sourced from existing literature. Time series data is used with the monthly period from January 2011 to December 2018.

This research uses quantitative analysis. Vector Error Correction Model (VECM) is used as the method of analysis. Firdaus (2011) defines VECM as a restricted VAR model that can be used for variables that are not stationary at the level but have the potential for cointegration. Data that is not stationary at the level must be given additional restrictions due to the cointegration that allows for speed of adjustment from short term to long term. The analysis is performed by rotating data using Microsoft Excel 2010 and then processed by using Eviews 10 software. The research model used in this study is as follows.

\[
\begin{align*}
\Delta \ln_{\text{Zakat}} & = \alpha_0 + \alpha_1 \Delta \ln_{\text{Publication}} + \alpha_2 \Delta _{\text{UPZ}} + \alpha_3 \Delta _{\text{Digital}} + \alpha_4 \Delta _{\text{CPI}} + \alpha_5 \Delta _{\text{BI Rate}} + \alpha_6 \Delta _{\text{Gold}} + \epsilon_t \\
\Delta \ln_{\text{Publication}} & = \beta_0 + \beta_1 \Delta \ln_{\text{Zakat}} + \beta_2 \Delta _{\text{UPZ}} + \beta_3 \Delta _{\text{Digital}} + \beta_4 \Delta _{\text{CPI}} + \beta_5 \Delta _{\text{BI Rate}} + \beta_6 \Delta _{\text{Gold}} + \eta_t
\end{align*}
\]

Where:

- \( \Delta \ln_{\text{Zakat}} \) = Natural logarithm of collecting zakat BAZNAS
- \( \Delta \ln_{\text{Publication}} \) = Natural logarithm of publication and documentation costs
- \( \Delta _{\text{UPZ}} \) = Dummy variable of UPZ BAZNAS in 2015. Dummy "1" indicates after UPZ, "0" indicates before UPZ
- \( \Delta _{\text{Digital}} \) = Dummy variable of digital zakat payment service BAZNAS in 2016. Dummy "1" indicates after digital services, "0" indicates before digital payment services
- \( \Delta _{\text{CPI}} \) = Natural logarithm of Indonesia Consumer Price Index
- \( \Delta _{\text{BI Rate}} \) = Reserve Monthly Bank Indonesia Interest Rate (Percent)
- \( \Delta _{\text{Gold}} \) = Natural logarithm of the world gold price
- \( \alpha_0 \) = Intercept Vector
- \( \alpha_1 \) = Error Term
- \( \Delta \) = Change

VECM estimation aims to describe the relationship between the dependent and independent variables in the short-term and long-term. The dependent variable used in this study is BAZNAS zakat collection variable. In contrast, the independent variables that used are variable of publication and documentation cost, UPZ dummy, digital dummy, IPI, CPI, gold price, and Bank Indonesia's rate (BI's Rate). The results of this VECM estimation aim to see the effect of internal and external factors towards zakat collection of Central BAZNAS in the short and long term. Five per cent of Type I error is estimated as the reference. The T-table statistical value of 1.96 indicates that the test results are said to be significant if t-statistics were greater than 1.96.

Based on Table 1, it indicates that there is a cointegration of errors that is statistically significant and has a value of -0.598017 which also shows the adjustment mechanism from the short term to the long term. That is, each month, the error is corrected around 0.598017 per cent towards its long-term balance. In addition, it can be seen that in the short term only Consumer Price Index (CPI) variable has a significant effect towards zakat collection of BAZNAS, this is because the reaction of one variable to another variable takes time and generally the reaction occurs in the long term (Firdaus, 2011). In the long term, variables that significantly influence the zakat collection of BAZNAS are the cost of publication and documentation, IPI, CPI, and BI rate. CPI has a significant adverse effect on the zakat collection of BAZNAS. In contrast, the cost of publication and documentation, IPI, BI rate has a positive effect significantly towards zakat collection of BAZNAS.

Results and Discussion

VECM Estimation Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Short-Term</th>
<th>t-statistic</th>
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</thead>
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<td>Const</td>
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<td>[4.0980]</td>
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<tr>
<td>D(Digital)</td>
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<td>D(CPI)</td>
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<td>[1.2640]</td>
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<tr>
<td>D(1+BI Rate)</td>
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</tr>
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<td>D(Gold)</td>
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<td>D(DUPZ)</td>
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<td>D(Digital)</td>
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<td>D(1+BI Rate)</td>
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<td>D(Gold)</td>
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<tr>
<td>D(Gold)</td>
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</table>
Impulse Response Function (IRF) Analysis Results

Impulse Response Function (IRF) analysis is performed to predict the response of a variable to the shocks of the variable itself or other variables in a standard deviation unit. In this study, IRF analysis uses the Cholesky Decomposition standard with an analysis of the response period of zakat collection for the next 30 months. The results of this IRF analysis would explain the response of collecting zakat by BAZNAS if there were a shock to zakat collection, publication and documentation costs, the presence of UPZ, digital zakat, IPI, CPI, world gold prices, and BI rate.

Based on the results of the IRF analysis that can be seen in Figure 3, the shocks of zakat collection variable (Ln_Zakat) will be responded positively by zakat collection itself. The response of zakat collection on shocks of internal factors of the cost of publication and documentation will be responded positively by the zakat collection by BAZNAS. Shocks of the cost of publication and documentation that are always responded positively by zakat collection demonstrate that the higher the cost of publication and documentation, the higher the zakat collection of Central BAZNAS. The cost of publication and documentation shows the level of promotion and transparency of Central BAZNAS. The higher level of promotion and transparency of BAZNAS will increase public knowledge and trust in BAZNAS. If this perspective were seen from the demand side, it would increase people's preference in choosing BAZNAS as a place to distribute their zakat so that more people would pay their zakat through BAZNAS. This result is in line with marketing theory which says that Zakat Management Organization (OPZ) as a non-profit organization is also required to carry out promotions and publications so that the public accepts its ideas and institutions. The results of research by Vendi (2014) and Anam (2012) also stated that socialization and publication influenced muzakki in paying zakat.

Shocks in digital zakat dummy will also be responded positively by the zakat collection of BAZNAS. This is because the existence of digital zakat services will expand amil's outreach in accessing muzakki. Besides, muzakki prefer to distribute zakat through amil institutions. Mukhlis and Beik's research (2013) explained the existence of excellent service from OPZ which could influence people in choosing where to pay their zakat. Thus, the existence of a digital zakat payment service of BAZNAS can generate a positive impact on the zakat collection of BAZNAS. Even towards 2020, BAZNAS has working to increase zakat collection through digital zakat management (Indonesia Zakat Outlook 2020). Meanwhile, UPZ dummy shocks will be responded negatively by the zakat collection of BAZNAS. This variable is related to the year of UPZ establishment in 2015 when there was a slowdown in economic growth in 2014. At that time, economic growth touched 5.02 per cent to 4.79 per cent in 2015. The slowdown in economic performance caused a decline in public income, so the amount of zakat which can be collected by BAZNAS is decreasing.

Figure 3 also shows the response of BAZNAS zakat collection to shocks on external factor variables. It can be seen that shocks of IPI will be responded positively by the zakat collection of BAZNAS. An increase in IPI shows an increase in public income because IPI is considered as one of the economic growth
indicators. Due to the amount of zakat that must be paid is in the form of a percentage, the increasing income of the public will increase zakat collection as well. This is consistent with the results of Hariyani's research (2018) which stated that IPI had a positive and significant influence on the collection of zakat, infaq, sadaqa (ZIS) by BAZNAS in the long term.

The zakat collection will positively respond to BI rate shocks. An increase in the BI rate will raise credit interest rates and deposits of the bank. An increase in bank deposit interest rates causes people to prefer saving funds in banks. The greater the amount of public savings, the greater their income and the greater their ability to reach zakat nisab, eventually zakat collection by BAZNAS will increase. In addition, shocks of CPI will be responded positively in the short term and negatively in the long term by the zakat collection of BAZNAS. In 2014, there was the enactment of President Instruction (Inpres) No 03 of 2014 concerning the optimization of zakat collection in government agencies through BAZNAS. Thus in the short term, an increase in CPI is estimated to increase the zakat collection of BAZNAS. Meanwhile, the negative response of zakat collections to CPI shocks in the long term occurs because the CPI is an indicator of price increases in general (inflation). This inflation shows the purchasing power of the community so that it can determine the ability of the community to fulfill their zakat. Inflation causes the increase in the cost of living, reflects daily needs to become greater and causes the greater nisab to be reached by muzakki. Thus, the community's ability to reach nisab decreases. The variable of zakat collection in the long term will respond negatively to CPI shocks. This result is also supported by the results of Afendi’s research (2018), which stated that inflation has a negative and significant effect on the zakat collection of BAZNAS.

In addition, gold price shocks will also be responded negatively by zakat collection. Gold is used as the standard of property frontier that must be undertaken so that an increase in its price indicates the greater the property frontier that is categorized as the object of zakat. The amount of assets that are categorized as the object of zakat can decrease. Thus, the increasing price of gold will reduce the zakat collection. This is consistent with the results of Afendi's research (2018), which states that the price of gold has a negative effect on zakat collection by BAZNAS.

**Forecast Error Variance Decomposition (FEVD) Analysis Results**

Forecast Error Variance Decomposition (FEVD) analysis is conducted to show the contribution of each shock of the variable used in this study. The results of FEVD analysis in this study explains the portion of contribution of each internal and external factor variable shocks in influencing the zakat collection of BAZNAS within the next 30 months.

![Variance Decomposition of LN_ZAKAT using Cholesky (c.f. adjusted Factors)](image)

Figure 4: Contribution of Internal and External Factors to the collection of zakat BAZNAS (Source: data processed)

Figure 4 shows that overall the most contributed variable explaining the variance of zakat collection of BAZNAS is the zakat collection variable itself with an average contribution of 60.14 per cent. This shows that there are still many other variables that are not included in the model that has a significant influence on zakat collection of Central BAZNAS. IPI variable contributes the second-biggest contribution with an average contribution of 31.69 per cent, followed by BI rate variable with an average contribution of 2.64 per cent, and CPI variable of 1.98 per cent, finally world gold price of 1.96 per cent. Meanwhile, for the internal variable, publication and documentation costs contribute the most by 0.92 per cent, followed by UPZ dummy of 0.36 per cent, and digital zakat dummy variable with an average contribution of 0.32 per cent.
Conclusions

VECM estimation results show that there are no significant effects of UPZ, digital zakat, and changes in world gold prices on the collect zakat BAZNAS. Internal factors only significantly influence to the zakat collection of BAZNAS in the long term. Variable costs of publication and documentation have a positive effect on the zakat collection of BAZNAS. External factors significantly influence the zakat collection of BAZNAS in the short term and long term. In the short term, the CPI variable has a positive effect on the zakat collection of BAZNAS. In the long term, the influence of external factors on the zakat collection of BAZNAS include IPI and BI rate variables which have a positive effect, and CPI negatively affects the zakat collection of BAZNAS.

IRF results show that the zakat collection of BAZNAS responds positively and negatively to shocks of an internal and external factor. Shocks of publication and documentation cost, digital dummy, IPI, and BI rate are responded positively by the zakat collection of BAZNAS in the long term. Shocks of UPZ dummy, CPI, and gold prices responded negatively by the zakat collection of BAZNAS.

FEVD results indicate that external factors are the factors that have the greatest contribution in influencing the zakat collection in BAZNAS with macroeconomic variables in the form of IPI (Industrial Production Index).

Recommendations

The zakat collection of BAZNAS is influenced by internal and external factors. BAZNAS needs to improve the composition of publication and documentation costs. This is because the immense contribution of internal variables comes from these variables and shocks of publication and documentation costs variable will be responded positively significantly by the zakat collection of BAZNAS. The increase in publication and documentation costs is intended to improve the quality of promotion and transparency BAZNAS to the public. In addition, BAZNAS must also analyze the risk analysis that can be caused by external factors in anticipation of rising CPI. This is because the shock of the CPI has a significant negative effect on the zakat collection of BAZNAS.

The Government and Bank Indonesia need to accelerate economic growth in the form of increasing IPI and increasing BI rate. This is because IPI and BI rates have a significant positive effect on zakat collection of BAZNAS and IPI has the largest contribution in influencing the variance of zakat collection of BAZNAS.

For further research, it is expected to add other variables as internal and external factors. External factors used in the future study can either be economic or non-economic variables.

References


