Zakat and Socio-Economic Impact: The Role of Local Government and Zakat Institutions

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Abstract: *This study aims to solve research questions on whether support for zakat institutions (ZIs) from regional governments in the East Java province of Indonesia affects the social and economic conditions of the region. The authors observed 11 samples of cities and districts in East Java over the last three years (2019 to 2021). Thirty-three research data were processed using panel data regression techniques with a fixed-effects model approach. Data was obtained from the National Zakat Institution (Baznas). The results show that financial support from the local government budget (RREB) and through zakat regulations of the regional governments in East Java have a positive effect on GRDP and a significant negative effect on the Gini index. In addition, zakat distribution activities in East Java have also been shown to have a significant positive and negative effect on GRDP growth and the Gini index. This study also provides recommendations to the local government of East Java and zakat stakeholders in synergising to build a better regional ZI system to support the regional economy.*

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1.   Introduction

Zakat is vital as a cornerstone of the Islamic economic structure (Metwally, 1997). Support from the government, both in terms of regulation and financing, for zakat institutions (ZIs) as a driving force for socio-economic activities has a significant influence on economic prosperity and income redistribution (Haidir, 2020; Universitas Darussalam Gontor & Puskas Baznas, 2021). As such, an integrative, collaborative, and conducive ecosystem that involves the participation of local governments in zakat management is needed. This will not only improve the performance of zakat management organisations, but also increase the impact of zakat from an economic and social perspective (KNEKS, 2021). ZIs can be a catalyst and a partner of local governments in realising economic prosperity and reducing disparities between regions, including in the province of East Java.

As a large province that is one of the economic pillars of Java Island and Indonesia, East Java is the second-largest contributor to gross regional domestic product (GRDP) (BPS Jatim, 2022). Nevertheless, the province still faces problems of income distribution and high inequality. Data from the East Java Central Statistics Agency (Badan Pusat Statistik, BPS) states that although the distribution of total expenditure for the lowest 40% of the population increased in September 2021, the percentage of total spending by the highest-earning 20% of the population was still above 40%. If viewed comprehensively and historically, East Java's Gini coefficient figures are relatively static, with no drastic or significant decline from March 2011 to September 2022 (BPS Jatim, 2022).

As a province that is home to 323,000 Islamic *santri* or students (the most in Indonesia), and as one of the centres of the national Islamic economy, zakat support from the regional government is a viable solution to this problem. East Java is home to one provincial-level zakat agency (Badan Amil Zakat Nasional, Baznas) and 36 district- or city-level agencies (Puskas Baznas, 2021). Data from the National Zakat Index (IZN) shows that East Java achieved perfect scores on macro indicators as measured by regional regulation variables and regional revenue and expenditure budget (RREB) support for the National Zakat Institution (Baznas). From these results, it is apparent that there are regional regulations regarding zakat management which are also supported by RREB covering at least 20% of the operational costs of ZIs (Puskas Baznas, 2021).

The East Java government's commitment and support for ZIs can reduce red tape in terms of income distribution and inequality between the regions of Indonesia. In substance, zakat can break through economic, social, and empowerment barriers. Empirically, zakat has been proven to have a reasonably comprehensive multidimensional effect, not only in terms of fulfilling individual religious obligations, but also collective impact and influence (Majid, 2021)—namely in efforts to alleviate poverty, increase national income and economic growth as well as reduce socio-economic inequality (Asmalia et al., 2018; Sirageldin, 2000; Sulaeman et al., 2021).

Many studies have discussed the impact of funding and distributing zakat on economic growth. Mahat and Warokka (2013) examine the role of zakat in increasing economic growth in 19 Muslim countries from 2004 to 2010 and find that it can be a vital and capable resource to achieve this goal. Suprayitno (2019) states that zakat stimulated economic growth in eight Muslim countries from 2004 to 2007, while Yusoff (2011) finds that zakat significantly affected economic growth in Malaysia. Yusoff and Densumite's (2012) more detailed study, which uses the vector error correction model (VECM), finds that zakat distribution can increase Malaysia's GDP in the short and long term. In Indonesia, Athoillah (2018), using the error correction model (ECM), finds that zakat has an empirical impact on economic growth. More comprehensively, Sulaeman et al. (2021), who examine the effect of zakat on the socio-economic welfare of Indonesians, find that zakat leveraged purchasing power and the social sector before the Covid-19 pandemic.

Past studies have not comprehensively examined how regional and financial regulations, in terms of budgetary support for ZIs, impact socio-economic welfare. The present study fills this gap by focusing on the province of East Java, one of Indonesia's centres of Islamic economic development (including Islamic social finance), while facing the problems of income inequality.

In this study, two questions will be explored through a series of procedural statistical steps: whether the existence of ZIs in East Java and their distribution of zakat funds can positively influence economic growth and reduce inequality; and if the financial support and governmental regulations enable ZIs to positively contribute to economic growth and reduce inequality in the province.

2.   Literature Review

2.1   *Zakat, economic growth, and social inequality*

Zakat has been shown to have a positive influence on economic growth. Zakat is multidimensional because it includes an instrument for redistributing income and wealth, alleviating poverty, and other social and economic problems (Sari et al., 2019). On the micro level, zakat plays an essential role in the allocation/distribution of assets to *mustahiq* or recipients. On the macro level, zakat affects several dimensions simultaneously, namely economic growth, wealth distribution, poverty alleviation, and social security. Zakat can be directly related to household consumption, company investment, and government public spending (Ben Jedidia & Guerbouj, 2021). Saputro and Sidiq (2020) add that Muslim economists believe that zakat, when prioritised accordingly, will benefit the poor and impact the economy through its multiplier effect on job creation and income generation.

2.2   *Government regulation and support for ZIs*

Systematic zakat management has been a continuous pursuit since the pre-independence era, through the old and new orders, and until the post-reformation period. Law No. 38 of 1999 was the first post-reform regulation on zakat management. Furthermore, support for strengthening governance and institutional strengthening of zakat was acknowledged with the issuance of Law No. 23 of 2011. Under this law, Government Regulation (PP) No. 14/2014 states that the president determines the organisational structure and appoints the highest members of Baznas. It also supports strengthening Baznas as a non-structural government institution (Universitas Darussalam Gontor & Puskas Baznas, 2021).

Another form of support can be seen in Presidential Instruction (Inpres) No. 3/2014, which requires all government institutions to distribute zakat through Baznas. Regional Baznas institutions, starting from the provincial, district, and city levels, were also established. This significantly accommodates regional diversity because it is relevant to the spirit of autonomy. Zakat management in the form of regional regulations legitimised the presence of provincial and district/city Baznas as independent and non-structural solid government institutions. Likewise, regional regulations

regarding the potential for zakat, infaq, and alms can be explored and developed according to regional peculiarities as long as they do not conflict with Sharia rules (Universitas Darussalam Gontor & Puskas Baznas, 2021).

2.3 *Gross regional domestic product, income distribution, and Gini coefficient*

Domestic product is the result of economic activity in the domestic area, regardless of the factors of production. The income derived from these production activities is termed domestic income. GRDP is the gross added value of all goods and services produced in a domestic region due to economic activity within a certain period, regardless of the source of production factors (Haryani et al., 2022). GRDP can be calculated using production, income and expenditure. GRDP, in the context of the production approach, is the amount of added value based on the introductory price of goods and services produced by various products on units consisting of 17 business categories within a certain period (usually one year) plus tax on net products (tax minus subsidies on products) (Rahardja & Manurung, 2008).

The distribution of a country's income is usually measured using the Lorenz curve, Gini coefficient, and World Bank criteria (Rahardja & Manurung, 2008). The Gini coefficient shows the inequality of income distribution. The Lorenz curve, meanwhile, is a cumulative expenditure curve that compares the distribution of a particular variable, such as income, with a uniform distribution that represents the cumulative percentage of the population in an area/region. It is used to measure the level of income inequality in aggregate and intact (Rahardja & Manurung, 2008).

On the Lorenz curve, the vertical axis shows the cumulative percentage of national output, while the horizontal axis represents the cumulative percentage of the population. The horizontal axis divides the distribution of the population/families into five groups, ranging from the poorest 20% of the population/population to the wealthiest 20% of the population/group with cumulative figures. Income is perfectly distributed if the most deficient 20% of families enjoy 20% of national income, followed by the next 20% of family groups also enjoying 20% of national income, and so on until the total accumulated 100% of families enjoy a total of 100% of national income. In fair conditions like this, the Gini coefficient value is zero, meaning no gap exists (BPS Jatim, 2022; Rahardja & Manurung, 2008).

2.4   Related studies

In addition to influencing increasing economic growth and or reducing income inequality, zakat is also proven to contribute towards poverty alleviation. Several empirical studies support this result. Using panel data from 34 provinces in Indonesia, Rini et al. (2020) find that zakat contributes to reducing poverty levels in each study object area. In the context of a wider area, the same was found by Abdullah et al. (2015) in Pakistan and Abdelmawla (2014) in Sudan.

Regarding economic growth, several previous studies have shown that zakat has a significant effect. Athoillah (2018), using panel data to examine the impact of zakat on economic growth from 2001 to 2012, found that zakat has a positive and significant impact as an instrument of poverty alleviation on the island of Java. Suprayitno (2020), using ECM, finds that zakat influences economic growth in Indonesia. In Malaysia, zakat also has a significant effect on increasing economic growth, as detailed by Suprayitno (2019) and Yusoff and Densumite (2012). In a broader scope, Mahat and Warokka (2013) reveal that zakat was a vital and capable resource in increasing economic growth in 19 Muslim countries. It is therefore evident that zakat funds can be directed to increase the amount of consumption, investment, and government spending to trigger economic growth.

Apart from that, zakat has also been proven to reduce income inequality. Sulaeman et al. (2021) and Johari et al. (2014) show that zakat reduced income inequality in Indonesia and Malaysia. In the regional context, using the Center of Islamic Business and Economic Studies (CI-BEST) model, Ayuniyyah et al. (2018) prove the role of zakat in encouraging the reduction of income inequality in several cities in West Java.

2.5   Research framework and hypothesis development

Based on the theoretical and empirical literature above, the research model used in this study is illustrated in Figure 1.

Figure 1: Research Framework
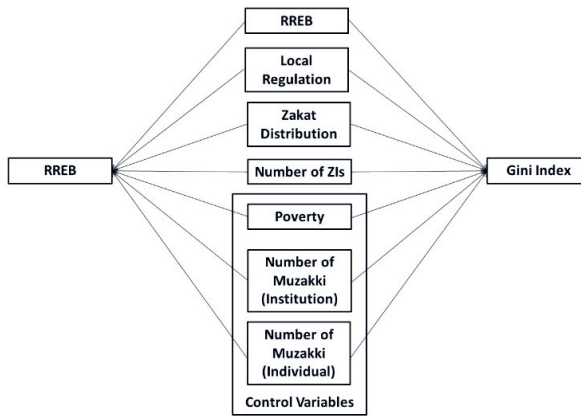
Source: Adapted from the literature.

The author hypothesises that the government's financial and regulatory support for ZIs and the zakat management that these institutions carry out can positively influence economic and social conditions as reflected in GRDP growth and inequality (Gini index). The hypotheses are described below:

H1a: RREB support for zakat institutions (ZIs) has a significant positive effect on GRDP growth

H1b: RREB support for ZIs has a significant negative effect on inequality (Gini index)

H2a: The existence of local government regulations and support for zakat management has a significant positive effect on GRDP growth

H2b: The existence of local government regulations and support for zakat management has a significant negative effect on inequality (Gini index)

H3a: Distribution of zakat by ZIs has a significant positive effect on GRDP growth

H3b: Distribution of zakat by ZIs has a significant negative effect on inequality (Gini index)

H4a: The presence (amount) of ZIs has a positive effect on the growth of GRDP

H4b: The existence (amount) of ZIs has a significant negative effect on inequality (Gini index)

3. Methodology

This study utilises secondary data from two official reports: the National Zakat Index Report from Baznas and the Macroeconomic Indicator Statistics Report from the East Java BPS. The context and scope of this research are the zakat management performance of ZIs and the support of city/regency governments in East Java within the last three years (2019 to 2021). Therefore, the population of this study is all cities and regencies in East Java. The province contains nine cities and 29 districts. The authors selected 11 sample areas, or 28.94% of the study population, composed of nine districts (Trenggalek, Malang, Tulungagung, Lumajang, Nganjuk, Banyuwangi, Bojonegoro, Ngawi and Bangkalan) and two cities (Kediri and Pasuruan). The reason for selecting the sample is because of data availability. The IZN Report does not have complete data for every city/regency in East Java, but the data for these 11 areas are complete.

This study involves two unrelated dependent variables: regional economic conditions proxied by GRDP growth value and inequality proxied by the Gini index value. The authors follow several previous studies, such as Nurjanah et al. (2019) and Ben Jedidia and Guerbouj (2021), which use GRDP growth and the Gini index as dependent variables (ratio data scale) to measure the socio-economic impact of zakat. For the independent variables, four factors are observed, namely the RREB support variable proxied by the index value of the RREB support to ZIs; government regulations proxied by the value of the government regulation index to ZIs; number of ZIs proxied by the index value of the ZIs presence; and the distribution of zakat proxied by the ZIs zakat distribution index value. All these independent variables have a type of ratio scale. The index values are calculated using the multi-stage weighted index method, which combines the process of weighting the components that make up the index which is carried out in stages and is procedural. The index values of these four independent variables are in the range of 0.00 to 1.00, formulated and calculated by Baznas (Hilmiyah et al., 2018).

To avoid the occurrence of omitted variable bias that could lead to a violation of classical assumptions, the authors included four control variables

in the research model. The four control variables are poverty (*poor*), the number of corporate contributors or *muzakki* (*muzakki1*), and the number of individual *muzakki* (*muzakki2*). These four control variables follow several previous studies, such as Abdelbaki (2013) and Fadliansah (2021).

To test the proposed hypothesis, the authors use panel data regression. There are three steps in performing panel data regression analysis (Sitorus & Yuliana, 2018). First, the classical assumption test must be carried out, considering that panel regression is a development technique from multiple linear regression. Second, a model estimation test is conducted among the three possible estimator models. There are three types of estimator models in panel data regression, namely the common-effects model (CEM), fixed-effects model (FEM), and random-effects model (REM). The Chow, Hausman, and Lagrange multiplier tests were carried out to choose between the three estimator models. Third, hypothesis testing was conducted by carrying out a series of tests, namely the t-test (partial test), F test (simultaneous test), and the coefficient of determination test (Wooldridge, 2001). EViews 9 is used to manage research data.

The authors built two research model equations to see how government support for ZIs and zakat distribution influence socio-economic conditions. The first equation is used to see the economic impact of zakat, where the dependent variable observed is GRDP growth. The second equation looks at the social effects of zakat, where the dependent variable observed is inequality. The two equations are as follows:

Economy side

$$GRDP_{it} = \beta_0 + \beta_1 RREB_{it} + \beta_2 regulation_{it} + \beta_3 distribution_{it} + \beta_4 ZIs_{it} + \beta_5 poor_{it} + \beta_6 muzakki1_{it} + \beta_7 muzakki2_{it} + \beta_8 Gini_{it} + \mu_{it} \qquad (1)$$

Social side

$$Gini_{it} = \beta_0 + \beta_1 RREB_{it} + \beta_2 regulation_{it} + \beta_3 distribution_{it} + \beta_4 ZIs_{it} + \beta_5 poor_{it} + \beta_6 muzakki1_{it} + \beta_7 muzakki2_{it} + \beta_8 GRDP_{it} + \mu_{it} \qquad (2)$$

Where *GRDP* (Y_1) represents GRDP growth; *Gini* (Y_2) represents Gini index; *RREB* (X_1) represents RREB support index; Regulation (X_2) represents government regulation index; Distribution (X_3) represents zakat

distribution index; *ZIs* (X_4) represents ZI index; *Poor* represents poverty; Muzakki1 represents *muzakki* (institution) index; *Muzakki2* represents of *muzakki* (individual) index; μ_{it} represents error value; β_0 represents constant; $\beta_{1,2,3,4,5}$ represents path coefficient; *i* represents cities/regencies; and *t* represents year.

4.   Result and Discussion

4.1   Results

The authors processed the original research data without any transformation and additional data because it was free from all classical regression assumptions. Only the poverty variable had the measurement scale changed to the natural logarithm (LN) to anticipate bias in the regression process because the difference in the magnitude of the figure is too far from other variables.

Based on the descriptive statistics in Table 1, the Jarque-Bera probability value (as a reference) is in the range of 0.0207 to 0.065 (≥ 0.05). H0 is accepted, while H1 is rejected, which means the data is normally distributed. Only the ZIs variable has a probability value < 0.05. From a total of 33 panel data, 11 have incomplete data for each variable. The authors use the unbalanced-panel feature in EViews, which can anticipate the problem of missing data (missing value) so that the hypothesis testing process with 22 data filled in can continue without any potential bias arising from the analysis results.

4.1.1 Regression model estimation test

Before performing the model estimation test, the authors ran a regression analysis for each regression estimator model (CEM, FEM, and REM) (Hsiao, 2003). First, the Chow test was conducted to determine which estimator model was chosen between the CEM and the FEM. The hypotheses formed in the Chow test are as follows:

H0: Common-effects model is selected
H1: Fixed-effects model is selected

Table 1: Descriptive Statistics

	GRDP	GINI	RREB	REGULATION	DISTRIBUTION	ZIs	POOR	MUZAKKI1	MUZAKKI2
Mean	0.009432	0.33272	0.602273	0.659091	0.793636	0.852273	11.38343	0.238636	0.227273
Median	0.003150	0.32000	0.750000	1.000000	0.805000	1.000000	11.68662	0.000000	0.250000
Maximum	0.063400	0.42000	1.000000	1.000000	1.000000	1.000000	12.48960	1.000000	0.750000
Minimum	-0.062500	0.30000	0.000000	0.000000	0.550000	0.250000	9.466532	0.000000	0.000000
Std. Dev.	0.044278	0.03326	0.447607	0.472742	0.135771	0.213518	0.880990	0.425925	0.202794
Skewness	-0.122446	1.00301	-0.485100	-0.670547	-0.029524	-1.353916	-1.087734	1.254812	0.710887
Kurtosis	1.383615	3.21237	1.457672	1.508885	2.044312	4.061681	3.132879	2.625419	3.242729
Jarque-Bera	2.449950	3.73013	3.043391	3.686792	0.840423	7.754563	4.354458	5.901976	1.906995
Probability	0.293765	0.15488	0.218341	0.158279	0.656908	0.020707	0.113355	0.052288	0.385391
Sum	0.207500	7.32000	13.25000	14.50000	17.46000	18.75000	250.4354	5.250000	5.000000
Sum Sq. Dev.	0.041171	0.02323	4.207386	4.693182	0.387109	0.957386	16.29901	3.809659	0.863636
Observations	22	22	22	22	22	22	22	22	22

Since there are two model equations to test, the authors ran two regression model estimations: (1) economic and (2) social. Table 2 and Table 3 present the probability value of cross-section chi-square (p-value) from the Chow test of each equation of 0.0000 and 0.0000 (H0 is rejected while H1 is accepted).

Table 2: Chow Test Results (1)

Effects test	Statistic	d.f.	Probability
Cross-section F	42.343142	(10,3)	0.0052
Cross-section chi-square	109.050464	10	0.0000

Table 3: Chow test Results (2)

Effects test	Statistic	d.f.	Probability
Cross-section F	24.306353	(10,3)	0.0118
Cross-section chi-square	96.953504	10	0.0000

This shows that FEM is the chosen estimator model for each equation. Then the Hausman test was conducted to determine which estimator model was selected between FEM and REM. The hypotheses formed in the Hausman test are as follows:

H0: Random-effects model is selected
H1: Fixed-effects model is selected

Table 4 and Table 5 present the probability value of cross-section chi-square (p-value) from the Chow test of each equation of 0.0000 and 0.0000 (H0 is rejected while H1 is accepted). It shows that FEM is still the chosen estimator model among other estimation models for this research.

Table 4: Hausman Test Results (1)

Test summary	Chi-square statistic	Chi-square d.f.	Probability
Cross-section random	137.379539	8	0.0000

Table 5: Hausman Test Results (2)

Test summary	Chi-square statistic	Chi-square d.f.	Probability
Cross-section random	87.736583	8	0.0000

4.1.2 Classical assumption test

Based on the chosen estimator model, the classical assumptions must be carried out in panel data regression. Because of using FEM, which employs ordinary least square (OLS), the classical assumptions that must be tested are multicollinearity and heteroscedasticity (Ghozali, 2018). The authors use the collinearity test in EViews to fulfil the multicollinearity assumption. Table 6 presents the correlation value data for each variable. The results show no correlation value between independent variables is more significant than 0.8. Ghozali (2018) and Field (2013) explain that there is multicollinearity between variables if the correlation value is above 0.8 or 0.9 and vice versa.

It can be concluded that the regression equation in this study is free from the multicollinearity assumption. The second classical assumption must be tested heteroscedasticity using the Glejser method, which requires a regression process between the residual value and the independent variables. The hypotheses formed in the Glejser test are as follows:

H0: There is no symptom of heteroscedasticity
H1: Symptoms of heteroscedasticity are occurring

Tables 7 and 8 show the Glejser test results and reveal that the p-value for each independent variable in both equations is > 0.05. Based on the results of the two tests above, it can be concluded that the regression results in this study's FEM method are free from violations of classical assumptions, and the analysis process can proceed to the hypothesis testing stage.

Table 7: Glejser Test Results (1)

Variable	Coefficient	Std. error	t-statistic	Probability
C	-0.004284	0.006233	-0.687318	0.5040
APBD	-0.000584	0.000754	-0.773541	0.4530
REGULATION	0.000344	0.000773	0.445500	0.6633
DISTRIBUTION	0.001595	0.002737	0.582616	0.5701
ZIs	0.000689	0.001429	0.482241	0.6377
POR	0.000366	0.000446	0.820614	0.4267
MUZAKKI1	0.000489	0.000896	0.544990	0.5950
MUZAKKI2	0.000230	0.001515	0.152066	0.8815
GINI	-0.000828	0.010915	-0.075867	0.9407

Table 8: Glejser Test Results (2)

Variable	Coefficient	Std. error	t-statistic	Probability
C	-0.002483	0.005161	-0.481187	0.6384
APBD	-0.000525	0.000660	-0.795402	0.4407
REGULATION	0.000417	0.000692	0.602926	0.5569
DISTRIBUTION	-0.002680	0.003345	-0.801396	0.4373
ZIs	0.000873	0.001207	0.723307	0.4823
POOR	0.000424	0.000364	1.166220	0.2645
MUZAKKI1	0.000867	0.000696	1.246323	0.2346
MUZAKKI2	0.000839	0.001399	0.599662	0.5590
PDRB	0.019236	0.010728	1.793087	0.0962

4.1.3 Hypothesis testing

The coefficient of determination test was conducted using the adjusted R-squared value. This test aims to determine the suitability of the research model built from various proposed variables (Sulistiyowati, 2017). Tables 9 and 10 show the test results. The value of the adjusted R^2 for equation I is 0.986750. It means that the independent variable in equation (1) influences the growth of GRDP as the dependent variable by 98%, and other independent variables outside the model affect the rest (0.02%).

Table 9: Fixed-Effects Model Results (1)

Variable	Coefficient	Std. error	t-statistic	Probability
C	7.762487	0.967273	8.025125	0.0040
RREB	0.073463	0.013373	5.493202	0.0119
REGULATION	0.043047	q0.006160	6.987850	0.0060
DISTRIBUTION	0.144128	0.018647	7.729392	0.0045
ZIs	-0.106244	0.021311	-4.985342	0.0155
POOR	-0.708755	0.085476	-8.291850	0.0037
MUZAKKI1	-0.010842	0.005203	-2.083520	0.1286
MUZAKKI2	0.012288	0.009987	1.230476	0.3062
GINI	0.656225	0.127119	5.162292	0.0141
Adjusted R^2		0.986750		

Table 10: Fixed-Effects Model Results (2)

Variable	Coefficient	Std. error	t-statistic	Probability
C	-10.80458	2.227616	-4.850286	0.0167
RREB	-0.104242	0.022493	-4.634482	0.0189
REGULATION	-0.060720	0.011810	-5.141280	0.0143
DISTRIBUTION	-0.193182	0.052330	-3.691592	0.0345
ZIs	0.157749	0.022503	7.010111	0.0060
POOR	0.988007	0.198380	4.980367	0.0156
MUZAKKI1	0.013119	0.008996	1.458348	0.2408
MUZAKKI2	-0.017507	0.014528	-1.205077	0.3146
PDRB	1.369678	0.265324	5.162292	0.0141
Adjusted-R^2		0.950999		

Likewise, in equation (2), the value of adjusted R^2 is 0.950999. It shows that the combination of independent variables influences the Gini index variable as the dependent variable by 95%. Other independent variables outside the equation model affect the rest (0.05%). From these results, the authors can conclude that both models built in this study have a high degree of goodness of fit.

The second hypothesis test is the F test or simultaneous significance, considering the F probability value on EViews. Table 9 shows that the F value of equation (1) is 0.001726, which is significant at the 5% error level (Ghozali, 2018). Likewise, in equation (2), Table 10 shows that the probability value of F is 0.011975 and is significant at the 5% error level. It can be concluded that the combination of independent variables proposed in these two equation models together has a significant effect on GRDP growth and the Gini index value as the dependent variable.

Tables 9 and 10 show the partial test results. The t-test is measured by seeing whether the probability value of the t-test is significant at the 5% error level (Ghozali, 2018). For equation (1), the RREB support variable on ZI activities has a significant positive effect on increasing GRDP growth with a probability value of 0.0119 (< 0.05). For equation (2), the RREB support variable on ZI activities also significantly affects the Gini index value. Table 9 shows the probability value of this variable of 0.0189 < 0.05, which means H1b is accepted and H0 is rejected.

The variables of government regulation and regional head support for zakat management in the equation (1) have a significant positive effect on

GRDP growth with a probability value of 0.0060. This indicates that H2a is accepted and H0 is rejected. For equation (2), this variable positively impacts inequality because it significantly negatively influences the Gini index number. The zakat distribution index value and the ZIs number index in East Java also have a significant positive effect on GRDP growth and a significant adverse impact on the Gini index variable. The FEM regression results shows that for equation (1), the probability value of the ZIs number index variable is 0.0155. For equation (2), meanwhile, the probability value of the t-test of this variable is 0.0060, both of which are significant at the 5% error level. These results indicate that H3a and H3b are accepted and H0 is rejected.

The zakat distribution index variable has a partial test probability value in equations (1) and (2) of 0.0045 and 0.0345 respectively, which are significant at the 5% error level. The zakat distribution index variable has a significant positive effect on GRDP growth and a significant negative impact on the Gini index value. This means that H4a and H4b are accepted, and H0 is rejected. However, this research proves and answers the research questions that the governmental support for and regional regulations concerning ZIs can positively influence economic and social conditions as reflected in the growth of GRDP and the level of inequality.

5.   Discussion

5.1   *The influence of the number of muzakki and ZIs on economic growth and equitable income distribution in East Java*

The present study strengthens the theoretical basis that has been proven by previous studies, which state that the implementation of zakat nationally can positively impact economic growth and poverty alleviation starting from the scope of the province/region, country, or in other countries (Ben Jedidia & Guerbouj, 2021; Choiriyah et al., 2020; Rini et al., 2020; Saputro & Sidiq, 2020; Sari et al., 2019; Sulaeman et al., 2021). The results show the urgency of zakat for *mustahiq* in socio-economic empowerment programs. Empowerment programs using zakat funds will significantly increase the amount of consumption, production, and distribution, both by consumer and producer households (empowered *mustahiq*) and investment (government).

This condition, in turn, can increase national income and Indonesia's economic growth. At the macro level, the distribution of zakat funds is empirically proven to be able to influence economic activity. It can be used as an alternative benchmark for evaluating and measuring economic growth (Sarea, 2012; Yusoff & Densumite, 2012) and government fiscal policy (Ben Jedidia & Guerbouj, 2021; Suprayitno, 2019). Furthermore, the distribution of zakat has implications for alleviating the distribution of income and wealth gaps, minimising the gap between the rich and the poor, which can lead to the economic development of the community in the long term.

On the other hand, however, the zakat funds collected in East Java in 2021 were still relatively low. Out of IDR30 trillion that could have been collected in the province, only IDR1 trillion was collected (Puskas Baznas, 2021). This shows the paradox of zakat collection in East Java not being maximised despite zakat distribution positively impacting economic growth and reducing inequality. If collections were to be maximised, the government could use these funds to better affect equity and economic development.

The distribution of zakat funds provides lessons about the importance of good organisational governance, primarily concerning aspects of efficiency and effectiveness (Yusoff, 2011). This in line with Mahat and Warokka (2013) and several other recent studies which reveal shortcomings of zakat institutions, especially in terms of fund distribution and the lack of suitable governance mechanisms. Therefore, ZIs, whether under the public or private umbrella, can adopt transparent procedures and strategies to improve the collection, utilisation and distribution of zakat funds (Ben Jedidia & Guerbouj, 2021).

No less important is the need for continuous collaboration between ZIs in terms of cooperation in the distribution of zakat funds in a timely and targeted manner. Apart from the fact that the zakat funds are the absolute rights of the *mustahiq*, it is also a mandate of the *muzakki* that must be fulfilled immediately, considering that zakat funds are urgently needed, especially for the disadvantaged, poor, and *gharimin* (debtors) groups.

On a macro level, in the context of policy, the results of this study reveal the importance of zakat in achieving economic growth in East Java, which is simultaneous with income distribution. East Java, a province where hundreds of thousands of Islamic students live—the highest concentration in Indonesia—needs to take advantage of this position and condition. Moreover, amid the rapid development of information technology and distribution, the

East Java government can cooperate with ZIs to carry out more socialisation and education programmes on zakat obligations as one of the five pillars of Islam. In addition, providing literacy regarding the types and methods of calculating zakat contributions under Sharia guidelines can increase public awareness of the importance of these funds. This aligns with efforts to improve services and public trust in zakat institutions (Ben Jedidia & Guerbouj, 2021).

5.2   *The effect of APBD support and regional regulations on ZIs and its effect on economic growth and income equity in East Java*

RREB support, solid regulations, and local government support are the main assets that can be maximised to improve the performance of zakat management by ZIs in East Java. East Java is the province with the third highest RREB value (IDR31 trillion in 2021) after Jakarta and West Java. Redistribution planning by providing RREB fund allocation slots to support the establishment of new ZIs or to improve the performance of long-established ZIs is one of the practical solutions that the regional government of East Java can implement.

Unfortunately, as the IZN data indicates, there are still Baznas in East Java that receive RREB support amounting to less than 20% of their operational costs or not at all. The ZIs in East Java that have received RREB support are the Baznas of East Java, as well as the Baznas of the districts of Trenggalek, Tulungagung, Jember, Banyuwangi, Sidoarjo, Jombang, Nganjuk, Madiun, Tuban, Gresik, Bangkalan, and Sampang. The Baznas in several cities, such as Kediri, Malang, Proboliggo, Mojokerto, and Madiun, also receive RREB support. However, the Baznas of the regencies of Malang, Lumajang, Magetan, and Bojonegoro have not received financial support from their regional governments (Puskas Baznas, 2021).

On this basis, and in line with the results of this study, the East Java government, through collaboration with the Baznas at the provincial level, can continue to stress the importance of zakat on economic growth and income distribution, especially by taking lessons from the early days of the Covid-19 pandemic. In this recovery period, the community still needs zakat and other social funds, especially workers in the informal or labour-intensive sectors.

Financial support from RREB by the district/city governments will

undoubtedly affect the performance and effectiveness of zakat distribution by ZIs. The impact will surely expand the *mustahiq* distribution area and its empowerment programme. Therefore, recommendations and public communication by provincial, district, and city governments, especially for those with local and regional regulations regarding zakat management, are needed to get full financial support. This implication is in line with the hypothesis in this study that the number of ZIs and corporate and individual *muzakki* have been proven to significantly affect the level of economic growth and income distribution in East Java.

Apart from the RREB support, zakat regulations at the provincial level have an enormous strategic impact on strengthening ZIs, which can maximise the socio-economic potential of zakat. West Nusa Tenggara does it through its Regulation no. 9 of 2015 concerning implementing and managing zakat, infaq, and alms. The technical implementation and management of zakat fall under Regulation no. 16 of 2016, which explains the authority of the province Baznas to receive and distribute zakat to *mustahiq* with an external supervisory mechanism consisting of the governor and the community (Universitas Darussalam Gontor & Puskas Baznas, 2021). At the district level, regulations were also formulated for the Baznas of Cianjur in 2004, Sukabumi in 2005, Padang Panjang in 2008, and the Musi Banyuasin regency in 2019 (Universitas Darussalam Gontor & Puskas Baznas, 2021).

In the context of East Java, regional regulations supporting ZIs have been stated in the governor's instruction concerning the optimisation of zakat, infaq, and *shodaqoh* collectors in regional apparatus organizations, vertical agencies, and regional owned enterprises. Furthermore, the support of city districts in East Java can also be seen from regional regulations supporting zakat institutions. Based on IZN data, the Baznas of East Java and several of its districts already have regulations concerning zakat (Puskas Baznas, 2021). Of the 38 regencies/cities in East Java, ZIs in 21 (55.26%) regencies/cities are supported by the local government.

As such, the regional government of East Java province needs to continue encouraging the other 17 regencies/cities to issue regulations regarding zakat. Existing rules can also regulate and urge local companies, public servants, private entities, and others to distribute zakat through Baznas. On a macro level, regional regulations have implications for poverty alleviation, income distribution, and an increase in regional economic growth, which are in line with the vision and mission of local governments.

On the other hand, the presence of regulations will also strengthen the institutional side of zakat management and help facilitate the birth of ZIs, both those owned by the government and private/community organisations. Furthermore, the increase in the quantity of ZIs will align with the increase in individual and corporate *muzakki*, increasing regional economic growth and reducing inequality.

6.   Conclusion and Research Suggestions

Findings regarding the impact of zakat on a country's economy and social conditions have become a general discussion in Islamic finance and philanthropy discourse. They can affect regional economic growth and decrease income inequality. This study also explains that to create the social and economic impact of zakat by ZIs in East Java, financial and regulatory support from the regional government is needed through funding from the RREB and creating regional laws as regulations governing zakat management.

This study has several limitations that can be developed in future research. First, this study uses a panel data regression model without the inclusion of any mediating variables. Several potential variables can link essential factors as moderating or mediating variables with GRDP and the Gini index. Second, the authors gauge government support using the measurement approach of Baznas. Future research can look for other success factors of zakat management and other measures of government support.

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