Toward ‘Sustainable Development’ through Zakat-Infaq-Sadaqah Distributions – As Inclusive Activities – For the Development of Social Welfare and Micro and Small Enterprises

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Hermien Triyowati,* Yolanda Masnita** and Khomsiyah***

Abstract: Indonesia’s national development, based on Pancasila as the 
official, foundational philosophical theory of the state, is similar to the 
concept of development based on an Islamic perspective, which 
includes economic, moral, social, material and spiritual aspects. One of 
the instruments used in Indonesia is the distribution of zakat (obligatory 
alms), infaq (donations) and sadaqah (alms) (ZIS), which eight groups 
of people are entitled to receive (asnaf). ZIS is a worship, which must 
be fulfilled by all Muslims.

This article discusses ZIS distribution in Indonesia, as a national 
inclusive activity, and analyses its contribution to social welfare and 
micro and small enterprise development. The results prove zakat 
distribution affects both variables significantly, but the distribution of 
infag and sadaqah is not significant. It also shows there is a strong 
correlation between all indicators for the two variables, together with 
human development, as well as trends for some variables that could 
achieve the four goals of sustainable development by 2030.

Keywords: zakat, infaq and sadaqah distribution, inclusion, social 
welfare, micro and small enterprises, sustainable development goals

INTRODUCTION

Economic development based on Islamic principles has comprehensive characteristics, not 
only limited to economic variables, but includes moral, social, material and spiritual aspects.¹ 
In other words, economic development is closely related to improving people’s living 
standards. That is, not only should it increase the per capita income and amount of exports, it 
must also be linked to the quality of human life. This means economic development must tackle 
the problem of poverty, provide basic necessities of life, such as adequate food, and even meet

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¹ Khurshid Ahmad, “Keynote Address,” in Fiscal Policy and Resource Allocation in Islam, eds. Ziauddin 
the society’s nutritional standards. Economic development should also address the rights to shelter, employment and education, preservation of the natural surroundings and various other social needs related to a decent life.²

According to Islam, a key tool for human development, including economic development, is ZIS (zakat (obligatory alms), infaq (donations) and sadaqah (alms)). ZIS entails the donation of money by Muslims to those who are entitled to receive such donations. Zakat, in particular, is obligatory as it is one of the pillars of Islam, while infaq and sadaqah are seen as virtuous acts that Muslims are encouraged to perform.

ZIS funds are generally provided as an aid to solve social problems (health, education, housing, etc.), as well as assistance for solving economic and financial problems (small business, economic empowerment, etc.). According to the Law of the Republic of Indonesia Number 38 Year 1999 on Zakat Management, “Zakat is a property that must be set aside by a Muslim, or a body owned by a Muslim, in accordance with the provisions of religion to be given to who is entitled to receive it.”³ Furthermore, in Article 1 paragraph 1, the Law states what is meant by the management of zakat is the activities of planning, implementation and supervision of the collection, distribution and utilisation of zakat. In this regard, the ZIS fund is managed in an integrated manner by the central government, as described in article 6: “zakat management is carried out by an amil zakat agency established by the government.”⁴

In Indonesia, ZIS is, in general, formally handled by government agencies or private parties and informally conducted by and for local communities. BAZNAS (National Amil Zakat Board)⁵ is a non-structural government institution that is independently responsible to the President of the Republic of Indonesia.⁶ BAZNAS was established by Presidential Decree of the Republic of Indonesia No. 8, dated 17 January 2011. BAZNAS has the authority to perform zakat management tasks nationally. BAZNAS performs the functions of planning, implementation, controlling, reporting and accountability for the collection, distribution and utilisation of zakat.

LAZ (Amil Zakat Institutions) is a private party that is authorised by the government to manage ZIS. The terms of obtaining a licence to establish LAZ, pursuant to Article 18 of Law No. 23 Year 2011, are: (1) registered as an Islamic organisation that manages education, proselytising and social affairs; (2) in the form of a legal entity; (3) has a recommendation from BAZNAS; (4) has a Sharia supervisor; (5) has the technical, administrative and financial capacity to carry out its activities; (6) is a non-profit organisation; (7) has a program to use ZIS

² Nor Aini Idris, Madeline Berma and Faridah Shahadan, Women of Malaysia – In the Era of Industrial Development (Bangi: University of Kebangsaan Malaysia, 1996), 12.
⁵ BAZNAS (Badan Amil Zakat Nasional) is a ZIS institution established by the central government, which is in charge of managing ZIS collection and distribution. This institution is governed by Indonesian law, in accordance with Islamic Sharia and under the supervision of the Ministry of Religious Affairs.
⁶ Law of the Republic of Indonesia Number 23 Year 2011 About Zakat Management, Article 16.
for the welfare of the people; and (8) is willing to undergo Sharia and periodic financial audits. To manage ZIS effectively, BAZNAS established zakat collection units (UPZ) with government agencies, private companies and overseas Indonesian representatives, as well as at sub-district and village levels.\footnote{Law of the Republic of Indonesia Number 23 Year 2011 About Zakat Management, Article 18.}

To evaluate its success, Yuswar Zainul Basri, Hermien Triyowati and Yolanda Masnita conducted three studies on ZIS in DKI Jakarta,\footnote{DKI Jakarta (Daerah Khusus Ibukota Jakarta) is the official name of Jakarta.} Indonesia. The studies used primary data from survey respondents and secondary data from ZIS institutes in Jakarta. The results of the first study showed distribution of ZIS produced a very positive and significantly noticeable economic outcome for the recipients (mustahiq)\footnote{Mustahiq are the eight groups (asnaf) who qualify to receive ZIS.}.\footnote{Yuswar Zainul Basri, Hermien Triyowati and Yolanda Masnita, “The Analysis of Potency and Impact of ZIS Distribution on the Prosperity of Dhuafa” (paper presented at the Annual International Conference on Islamic Economics, Surakarta, Indonesia, October 29, 2014).} This study also involved an input–output analysis based on data from BAZIS, which is the regional institution in relation to ZIS.\footnote{BAZIS is governed according to the joint decrees (Surat Keputusan Bersama) of the Minister of Home Affairs and Minister of Religious Affairs No. 29 and 47, Year 1991, about the development of the Agency Amil Zakat, Infaq and Shadaqah. Article 1 of the SKB mentions BAZIS is a “Non-governmental organization that manages the acceptance, collection, distribution and utilization of zakat, infaq, shodaqah efficaciously succeed.”} The results showed distribution of ZIS in the education sector was IDR 12.616 billion and in the private healthcare sector was IDR 10.893 billion, increasing Jakarta’s output so much it almost doubled in overall output (IDR 43.849 billion).

These results supported the research undertaken by Patmawati Ibrahim on the role of zakat in alleviating poverty and income inequality in Malaysia. Taking Selangor’s circumstances as an example, Ibrahim found zakat influences poverty reduction and narrowing of the societal income gap.\footnote{Patmawati Ibrahim, “Economic Role of Zakat in Reducing Income Inequality and Poverty in Selangor,” (PhD diss., University of Putra Malaysia, 2006), 167.} Similarly, ZIS distribution proved to positively contribute to the regional economy, as well as ensuring human development through the fulfilment of basic needs in Jakarta. In this case, improvements in all output sectors ensured multiplier ‘economic’ effects, which meant an increase in economic activity both upstream and downstream. These results support the opinion of some experts in this field, who believe human development is for the people and of the people. This means people are positioned at the ‘centre of the universe’. Every country, company and individual relies on knowledge, patents, skills, technology and information. Thus, development of the people will result in economic growth, social development and environmental protection, which is the cornerstone of the concept of sustainable development.\footnote{Danut Moşteanu et al., “The Sustainable Development – Human Development,” Revista Academiei Forţelor Terestre Nr. 1 73 (2014), www.armyacademy.ro/reviste/rev1_2014/MOSTEANU.pdf.}

The results of Basri, Triyowati and Masnita’s second study demonstrated the effectiveness of ZIS institutions is dependent on employee loyalty and organisational citizenship behaviour.
Employee loyalty greatly improves ZIS institutions’ OCB. In return, higher OCB improves organisational efficiency and effectiveness, contributing to resource transformation, innovation and adaptability. These findings suggest the efficiency and effectiveness of ZIS institutions can be enhanced by further focusing on employee loyalty and OCB.

The third result of the study showed ZIS institutions’ key performance indicators are influenced by seven variables: Sharia principles, reliability, responsiveness, assurance, empathy, tangibility and customer loyalty. These variables were divided into three factors for the key performance indicators: the ability of employees to handle customers (assurance, responsiveness and empathy); the external factor (tangibility and customer loyalty); and Islamic law (Sharia principles and reliability). This finding informs all ZIS institutions that, to further improve their performance in the long term, there are three important key factors that must be addressed by relevant stakeholders. With the improvement of ZIS institutions’ management quality, it is expected there will be a sustainable increase in ZIS distribution.

For the purpose of achieving sustainable development, each country will have different needs. With Indonesia’s population of more than 260 million people, of which more than 90% are Muslim, effective ZIS distribution becomes essential. By improving the organisation and management of ZIS institutions, there is hope to achieve sustainable development.

Beginning with this premise, the aim of this research is to know the impact of inclusive activities through ZIS distribution on improving social welfare and micro and small enterprise (MSE) development, and how this relates to human development. This research is linked to human development, since, in essence, ZIS distribution is an inclusive activity that does not burden the recipients and is aimed at programs focused on problem solving or assistance with a social, education, health or humanity focus. This research was conducted on a national scope using secondary data from 2007–2014. This research looks at whether the predictions of indicators relevant to the research problem will be able to match the targets as set out in Indonesia’s sustainable development goals (SDGs) for 2030.

**ZIS – Meaning, Roles and Inclusive Activity**

ZIS is the main instrument in Islamic economics practices that could potentially increase social welfare of communities. *Zakat* for this study is *zakat maal* or *zakat* on wealth, which must be paid by capable Muslims, referred to as *muzaki*. According to Islamic law, to be liable to pay *zakat*, one must reach a threshold or *nisab* (a minimum limit related to the value of the individual’s wealth and property).

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14 Yuswar Zainul Basri, Hermien Triyowati and Yolanda Masnita, “Organizational Effectiveness Assessment of ZIS Institute Based on the Perception of HR/Staff of the ZIS Institute and Mustahik: ZIS Institute Case Study in DKI Jaya” (paper presented at the International Conference on Social, Economic and Culture, Surukarta, Indonesia, September 8, 2015), http://icosec.org/proceedings/2015.

15 Yolanda Masnita, Yuswar Zainul Basri and Hermien Triyowati, “Key Performance Indicators as an Essential Factor of ZIS (Zakat, Infaq and Shodaqoh) Institutes, based on Mustahiq Perspectives” (paper presented at the International Conference on Business, Economics and Social Sciences, Vienna, Austria, June 16-17, 2016).
The amount of zakat maal is 2.5% of any wealth or property that is held for at least one year and must be given to eight groups or asnaf mustahiq as mentioned in the Qur’an:16
(1) the needy (fakir); (2) the poor; (3) officials from a ZIS institution (amil); (4) the mu’allaq, a man or woman whose heart has turned to Islam, i.e. a new Muslim and friend of the Muslim community; (5) for liberating slaves; (6) the debt-ridden; (7) a man or woman who work in the cause of Allah; and (8) the ibn sabillimusafir, a man or woman who is a traveller or on the path to Allah. While infaq and sadaqah have the same meaning, i.e. a voluntary expenditure made by a Muslim, of an unspecified amount and given to anyone, sadaqah has a broader meaning, as it also involves non-material items, such as doing good deeds.17 Thus, Islam pays a great deal of attention to the poor, which is implied in the Qu’ran: at-Taubah 9:60 emphasises the zakat precedence of welfare to the poor; and al-Baqarah 2:177, 215 and 273, and al-Isra 17:26-27, explain that infaq and sadaqah have functions for welfare of the poor, family, ibn sabil and orphans. From the explanations of the eight asnaf mustahiq, for Indonesia’s conditions, which can be clearly identified through verification, examination or validation, and with conformity of definitions or terminology, its needs are towards asnaf fakir, the poor and amil.18

Furthermore, the Indonesian Government, through law no. 38 in 1999,19 stated, in order to improve ZIS management, established organisations are required. These were formed by the people and government: BAZNAS at central level and LAZ at regional level. BAZNAS established five purposes for ZIS distribution: (1) care for Indonesia (to overcome life difficulties or disasters that befall mustahiq); (2) smart Indonesia (for mustahiq education and training); (3) healthy Indonesia (for mustahiq healthcare); (4) takwa Indonesia (for mustahiq religious development); and (5) prosperous Indonesia (for mustahiq economic improvement and empowerment).20

BAZNAS’ five objectives can be grouped into two general objectives. This first is for consumption purposes (points 1, 2, 3 and 4), where ZIS is given to vulnerable mustahiq (due to food shortage, disaster, social or economic problems) for daily consumption needs and as a short-term program to address the immediate problems of the poor and needy. The second is for productive purposes (point 5), where ZIS is given to healthy mustahiq in the form of revolving capital, equipment, education and other productive support, so mustahiq can perform productive work, earn income and get out of the poverty cycle. In this case, ZIS distribution is a long-term investment to improve the quality of human resources. This is the main purpose of

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16 Qur’an 9:60.
20 Hafidhuddin, “Peran Strategis Organisasi Zakat Dalam Menguatkan Zakat Di Dunia.”
using ZIS, i.e. to make mustahiq an economic agent and become muzaki (donors). So, the main concern for ZIS distribution is the mustahiq’s success in improving their business activities in a sustainable way.

Yuswar Zainul Basri, Hermien Triyowati and Yolanda Masnita found ZIS distribution for productive purposes supports economic improvement, as it has a mature planning and implementation concept, such as indicating the causes of poverty, lack of working capital and lack of employment. ZIS development for productive purposes, as working capital for economic empowerment, enables the poor to grow their businesses, earn fixed income and set aside some money for savings.\textsuperscript{21} In this case, ZIS recipients are more likely to be involved in MSEs.

These explanations show Islam’s concern towards assisting the poor, building human life and improving community welfare, which involves Muslims as compulsory donors in accordance with religious provisions. As it is aimed at vulnerable and poor communities, and there are no binding and burdensome conditions for those involved, this phenomenon can be considered an inclusive activity covering social, economic and financial fields.

Social inclusion is the provision of certain rights to all individuals and groups in a society, such as employment, adequate housing, healthcare, education and training, and may refer to a process that encourages social interaction between people with relevant social attributes to open access to participation in all areas of social life. Economic inclusion is a term that describes various public and private efforts, bringing undocumented communities into the mainstream of finance.\textsuperscript{22} In addition to the appeal to spread broad opportunities and benefits, economic incentives give people the chance to succeed and encourage them to follow empowerment, participate in the workforce and make investments, which will have an impact on economic growth and prosperity.\textsuperscript{23} Financial inclusion is the process of ensuring access to appropriate financial products and services needed by vulnerable groups, such as those on low incomes, at an affordable cost in a fair and transparent manner by mainstream institutional players.\textsuperscript{24}


\textsuperscript{24} Deepali Pant Joshi, “Financial Inclusion & Financial Literacy” (presentation at the Second OECD Asian Roundtable on the Role of Central Banks in Financial Literacy and Inclusion, Jakarta, Indonesia, June 28, 2011).
ZIS, Social Welfare and Human Development

One of the goals of ZIS distribution is the improvement of people’s welfare. Social welfare is a condition where people feel comfortable, peaceful, happy and able to meet social, economic, educational and health needs. On the other hand, human development is a process that aims to give a person more choices, particularly in relation to income, health and education. The ultimate goal is to create an environment that allows people to enjoy longevity, health and a productive life. The success of efforts to build the quality of human life in one state are represented by the human development index (HDI), which has four measurement dimensions: longevity, healthy life, knowledge and a decent standard of living.

Thus, the three dimensions of human development measurement (longevity, healthy life and knowledge) are in line with the development of social welfare. This can be seen from social welfare indicators:

(a) Educational indicators, including: (1) school enrolment rate/SER (percentage of children aged 7-12 years, or adolescents/adults still in school); (2) literacy rate/LR (percentage of population able to read and write); and (3) means year schooling/MYS (average time of population participating in education). Proper education is expected to improve community welfare and encourage individuals to take an active role in the development process.

(b) Public health indicators, related to food, environmental factors, health facilities and availability of medical personnel, as measured by: (1) crude death rate/CDR (number of deaths in a given year, for every 1,000 persons); (2) infant mortality rate/IMR (deaths per 1,000 live births in one year); and (3) life expectancy at birth/LEB (average lifespan of people born in the same year).

Moreover, the fourth dimensions – a decent standard of living – is linked to the state’s ability to provide and ensure the needs of the community properly, which means bringing people out of poverty. Poverty is a condition where a person is not able to meet the needs of the minimum living standards, as measured by food expenditure on par with a value of 2,100 kilocalories per person per day and non-food expenditure (housing, lighting, fuel, clothing, education, health, transport, goods and services). The poverty indicator is measured using a basic needs approach, by computing the head count index (HCI), which is a measure of the number of people with incomes below the poverty line. A smaller HCI indicates a lower number of people below the poverty line.

A decent life, with regard to a state’s efforts to provide access to productive enterprises, is also the goal of human development. Productive work associated with lower economic classes

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is conducted by MSEs. MSEs generally operate in an informal manner; have no business licences; have not fulfilled administrative legal obligations, such as workplace security, taxes and labour laws; and many use local resources, thus creating efficient allocation of resources.28

A small business is a productive economic enterprise carried out by an individual or business entity, or a subsidiary of a medium or large company, and has assets of at least IDR 500 million per year, while micro enterprises have no more than 20 employees, individual or family ownership, limited capital, low quality of human resources, simple or labour-intensive technology, low labour productivity and low labour costs. A micro enterprise is a productive business owned by a family or individual Indonesian citizen with maximum sales of IDR 100 million per year.29 By themselves, the activities of small and micro businesses will create income for those involved.

ZIS distribution for productive purposes makes a real contribution, because it is accompanied by empowerment and understanding of careful planning and implementation, such as the definition of working capital and employment.30 This condition allows the poor to grow their business, increase revenue and set aside income as savings. In this case, ZIS recipients are MSEs. The development of MSEs can be seen from the increasing number of MSE institutions (ΣUnit) and MSE labour (ΣLabour).

All economic activity has a multiplier effect. Any increase in consumer spending, will result in corporations or governments creating revenue, while the economic transaction process increases employment and final demand. Analysis of the economic multiplier effect looks at the roles of one sector against other sectors. Thus, the multiplier effect is a reciprocal effect of and for all sectors, which will have an impact on the economy.31 Therefore, in relation to the various inclusion activities in the implementation of ZIS distribution, in comparison with the concept and context of human development, it can be stated there is conformity to the objectives of both activities, which include the welfare of poor people, justice and prosperity.

ZIS and Sustainable Development

The World Bank Group declared sustainable development recognises that growth must be inclusive and environmentally sound to reduce poverty and build shared prosperity for today’s population, and to continue to meet the needs of future generations.32 There are three pillars of

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30 Basri, Triyowati and Masnita, Zakat, Infaq, Sedekah, 130.


sustainable development: (1) economic growth, (2) environmental management, and (3) social inclusion. These pillars direct all sectors to implement developments that must be environmentally friendly and at the same time inclusive, to reduce poverty and build the welfare of today’s society and meet the needs of future generations.

**Sustainable human development** not only generates economic growth, but also distributes benefits equitably, regenerates the environment instead of destroying it, and promotes people instead of marginalising them.³³ This statement is supported by the results of empirical research conducted over four years (2009-2011) involving 1,330 SMMEs (small, micro and medium enterprises) consisting of start-up companies (companies focusing on rural development in agriculture, training and micro-enterprise development, and climate and energy change). The results show SMMEs contribute significantly to the green economy and sustainable development. The study presents an overview of the role of SMMEs in poverty reduction, social resilience and environmental protection.³⁴ Thus, it can be concluded there is a relationship between ZIS distribution, as an inclusive activity, with human development, which in the long term is expected to support the achievement of the SDGs.

The SDGs are a set of 17 global goals, which are measured by progress against 169 targets. The SDGs cover a broad range of social development issues, including poverty, hunger, health, education, gender equality, climate change, water, sanitation, energy, environment and social justice.³⁵

**Research Hypotheses and Conceptual Framework**

Based on the description above, some research hypotheses and conceptual frameworks can be formulated (see Figure 1). The **first hypothesis** is “ZIS distribution (DZ, DIS), through social inclusion activities (provision of educational scholarships, healthcare for sick people, mothers and children, such as ambulances, access to low-cost housing, etc.) influences the quality of social welfare (education – SER, MYS, LR; health – CDR, LEB, IMR; and poverty – HCI).”

The **second hypothesis** is “ZIS distribution (DZ, DIS), through economic and financial inclusion (access to capital for MSEs with simple requirements, access to economic empowerment and promotion of MSEs, etc.), influences the development of MSEs (number of institutions – \(\sum\)Unit – and number of employees – \(\sum\)Labour), and then the MSEs’ development affects income per capita (INCpc). Furthermore, improving education and health has a positive impact on poverty (HCI), and improving income per capita (INCpc) reduces poverty (HCI).”

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³³ Moşteanu et.al, “The Sustainable Development.”
While the third hypothesis is “ZIS distribution (DZ, DIS), through social inclusion, economic and financial activities, has a relationship with the Indonesian HDI. In the long term, this situation is expected to lead to sustainable development (SD).”

Figure 1: Conceptual framework

Source: Based on researchers’ literature study

Design Research and Data Gathering

The research design used is causality study. A causal study examines the cause and effect between variables. Causality shows a directional relationship between an independent variable or interaction between independent variables and a dependent variable. In this research, we used secondary data from 2007–2014 taken from the BAZNAS audit reports,\(^ {36}\) Central Bureau Statistics,\(^ {37}\) Ministry of Cooperatives and Small & Medium Enterprises,\(^ {38}\) and the World Bank.\(^ {39}\)

Statistical Methods

In this study, we used several statistical methods in data processing. First, we used the ordinary least squares (OLS) statistical method, which includes: (1) simple linear regression analysis, used to assess the association between one independent variable and a single continuous dependent variable; and (2) multiple linear regression analysis, used to assess the association between two or more independent variables and a single continuous dependent variable. Linear regression analysis allowed us to estimate the association between a given independent variable and the outcome holding all other variables constant; this provides a way to adjust for potentially confounding variables that have been included in the model. One of

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\(^ {37}\) Badan Pusat Statistik, \url{https://www.bps.go.id/}.

\(^ {38}\) “Data UMKM” [MSME Data], Kementerian Koperasi dan Usaha Kecil dan Menengah, \url{http://www.depkop.go.id/berita-informasi/data-informasi/data-umkm/}.

\(^ {39}\) World Bank Open Data, \url{https://data.worldbank.org/}.
the requirements to use this method is the data must be normally distributed. For the data normality test, we used the one sample Kolmogorov-Smirnov test.\(^{40}\)

The OLS method was used to determine:

1. The effect of ZIS distribution (DZ, DIS) as predictor variables, against some inclusion activities as dependent variables, i.e. (a) social inclusion activities, which consists of two variables – education (SER, MYS, LR) and health (LEB, CDR, IMR); and (b) economic and financial inclusion activities, i.e. SMEs development variable (ΣUnit, ΣLabour)
2. The effect of social inclusion activities (SER, MYS, LR, LEB, CDR, IMR), as predictor variables, against poverty variables (HCI), as a dependent variable
3. The effect of SME development (ΣUnit, ΣLabour), as predictor variables, against dependent variables, such as per capita income (INCpc) and poverty (HCI)

Second, we used the Pearson product-moment correlation coefficient. This method measures the strength of linear association between two variables and is denoted by \( r \). Basically, the Pearson product-moment correlation attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient, \( r \), indicates how far these data points are to this line of best fit (i.e. how well the data points fit this new model/line of best fit).\(^{41}\) The Pearson product-moment correlation is used to determine the correlation between several predictor variables, such as the human development variable (HDI). Indicators that proved to be significant and strong became the dominant factor forming these variables.

Third, we used the time series or linear trend method. These mathematical models or procedures extrapolate predicted future values from the known past of the series.\(^{42}\) Excel was used to create trend lines on charts following the linear trend method. Excel can display the equations in a graph, which presents estimation models, and the best estimation model can be chosen by taking into account the value of the coefficient of determination (\( R^2 \)). The selected equations can then be used to calculate the value of future data. This method was used to extrapolate the achievement of developments in Indonesia by 2030. The prediction is made on several variables related to ZIS distribution, which has a dominant influence on human development in Indonesia. The expected results were compared with the SDG targets.

**Research Model**

Based on the formulation of hypotheses and statistical methods used, we obtained various research models (M), as follows.

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<table>
<thead>
<tr>
<th>Descriptions</th>
<th>The statistical model/equations.</th>
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<tbody>
<tr>
<td>ZIS distribution ⇒ Social inclusion activities (education)</td>
<td>M1 $\text{SER} = a_1 + b_1 \cdot DZ + c_1 \cdot DIS + \epsilon_1$</td>
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<td></td>
<td>$\text{MYS} = a_2 + b_2 \cdot DZ + c_2 \cdot DIS + \epsilon_2$</td>
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<td></td>
<td>$\text{LR} = a_3 + b_3 \cdot DZ + c_3 \cdot DIS + \epsilon_3$</td>
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<tr>
<td>ZIS distribution ⇒ Social inclusion activities (health)</td>
<td>M2 $\text{CDR} = d_1 + e_1 \cdot DZ + f_1 \cdot DIS + \epsilon_4$</td>
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<td></td>
<td>$\text{IMR} = d_2 + e_2 \cdot DZ + f_2 \cdot DIS + \epsilon_5$</td>
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<td></td>
<td>$\text{LEB} = d_3 + e_3 \cdot DZ + f_3 \cdot DIS + \epsilon_6$</td>
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<tr>
<td>ZIS distribution ⇒ Economics and financial inclusion activities (SME development)</td>
<td>M3 $\Sigma \text{Unit} = g_1 + h_1 \cdot DZ + i_1 \cdot DIS + \epsilon_7$</td>
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<td></td>
<td>$\Sigma \text{Labour} = g_2 + h_2 \cdot DZ + i_2 \cdot DIS + \epsilon_8$</td>
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<tr>
<td>SME development ⇒ Income per capita</td>
<td>M4 $\text{INCpc} = j + k \cdot \Sigma \text{Unit} + i \cdot \Sigma \text{Labour} + \epsilon_9$</td>
</tr>
<tr>
<td>Social inclusion activities (education and health) ⇒ poverty</td>
<td>M5 $\text{HCI} = m + n \cdot \text{SER} + o \cdot \text{MYS} + p \cdot \text{LR} + q$</td>
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<td></td>
<td>$\text{CDR} + r \cdot \text{IMR} + s \cdot \text{LEB} + \epsilon_{10}$</td>
</tr>
<tr>
<td>Income per capita ⇒ poverty</td>
<td>M6 $\text{HCI} = t + u \cdot \text{INCpc} + \epsilon_{11}$</td>
</tr>
<tr>
<td>General equations for the relationships of HDI with all variables in inclusive activity, poverty, SME development and income per capita</td>
<td>M7 $\text{HDI} = f(\text{SER}, \text{MYS}, \text{LR}, \text{CDR}, \text{LEB}, \text{IMR},$</td>
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<tr>
<td></td>
<td>$\text{HCI}, \Sigma \text{Unit}, \Sigma \text{Labour}, \text{INCpc})$</td>
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Sources: The researcher’s hypotheses and statistical methods

RESULTS AND DISCUSSION

In practice, all regional ZIS institutions registered with BAZNAS carry out their inclusive ZIS distribution activities in accordance with the five objectives. Although each institution determines its own programs according to its culture, characteristics and habits, in essence, all institutions have the same goal: to help solve the mustahiq problem, whether social, economic, educational, health or humanity.

Social inclusion activities, through ZIS distributions to mustahiq, are usually given for subsistence consumption (food and drink, clothing, home, education, health, etc.). Especially for education, ZIS is generally given in the form of scholarships for children in elementary, middle and upper schools; through Islamic schools; learning guidance for drop out students; and education for illiterate people. The result of OLS analysis proves the distribution of zakat (DZ) for education has a positive and significant impact on three indicators, i.e. SER, MYS and LR, but the distribution of infaq and sadaqah (DIS) only affects the SER indicator. This means DZ increases school participation, increases the average length of education (not dropping out of school) and eradicates illiteracy, but DIS only increases school participation.

Meanwhile, social inclusion activities, through ZIS distributions to mustahiq, in terms of health are usually provided in the form of health checks; pregnancy and birth assistance; free immunisation and nutritious food for children and infants; and providing ambulances for the sick or deceased. The results of OLS analysis showed the distribution of zakat (DZ) for health has a negative and significant impact on CDR and IMR indicators, and a positive and significant impact on LEB indicators. These findings confirm that increasing DZ will reduce mortality and increase longevity, but social inclusion activities through DIS do not affect health (see Table 1).
In terms of economic and financial inclusion activities, ZIS distribution is provided for productive purposes, such as MSE financing and MSE empowerment through various training that is beneficial to their businesses. MSE financing, in the form of capital lending to mustahiq, accompanied by empowerment through entrepreneurship training, involves no ongoing binding requirements and they must return the capital, without interest, in accordance with a mutually agreed method and time frame. If mustahiq succeed in developing their business, they are required to become muzaki, i.e. a ZIS donor.

The OLS analysis results show that DZ has a positive and significant effect on the development of MSEs, both the number of institutions ($\Sigma$Units) as well as the number of labourers ($\Sigma$Labour). In this case, the distribution of infaq and sadaqah (DIS) does not affect the development of MSEs (the number of labourers) nor does it affect per capita income.

Thus, the distribution of zakat (DZ) for productive purposes, in addition to increasing the number of donors (muzaki) derived from successful mustahiq, also explains the effect on per capita income. This is demonstrated by other OLS analysis results, which prove that MSE development has a positive and significant effect on per capita income (INCPc), meaning the higher the number of MSE institutions and jobs, the higher per capita income. This fact shows the distribution of zakat (DZ) is in accordance with its purpose and makes zakat a tool of societal economic development (see Table 2).

Increased economic and social welfare, as well as poverty reduction, are the requirements of a decent standard of living. The results of subsequent analysis show that educational indicators (SER, LR) and per capita income (INCPc) have a negative and significant effect on poverty (HCI), while health indicators (CDR, IMR) have a positive and significant effect on poverty (HCI). This situation shows improving education and income per capita, as well as decreasing mortality rates, impact poverty reduction. In other words, improving people’s welfare reduces poverty. All indicators have the correct signal according to this theory. In this case, some health and education indicators, MYS and LEB, should be excluded from the model since they are not statistically significant (see Table 3).

Overall, these four models proved to be appropriate, indicated by the value of $R^2$ adjusted more than 90%, as well as the value of Analysis of Variance (F-test), which proved significant ($\alpha<0.05$). It also explains that, simultaneously, economic, financial and social inclusion activities, through DZ and DIS, improve social welfare and develop MSEs. In addition, simultaneously, social welfare and per capita income lower poverty levels.

Furthermore, the results of the Pearson correlation analysis, between several welfare variables, with human development variables (HDI), show the following results: (1) educational variables (MYS, LR indicators) are positively and significantly related, except the SER indicator; (2) health variables (CDR, IMR indicators) are negatively and significantly correlated, while LEB indicators are positively and significantly correlated; and (3) the poverty variable (HCI) is negatively related and significant. Pearson correlation analysis results, between per capita income (INCPc) and MSE development ($\Sigma$Units, $\Sigma$Labour) with HDI, show a positive, significant and strong relationship. While all the variable marks are theoretically
correct, the nature of the relationship is strong because the correlation coefficient value is close to one. This means social welfare, MSE development, per capita income and poverty have a strong relationship with human development and become the determinant factor for the realisation of human development in Indonesia. This fact also supports the dimensions of human development (longevity, healthy life, knowledge and a decent standard of living), as well as the contents of human development, which must be filled with quality and productive life. This is understandable because, in essence, a healthy, creative and productive society will support the advancement of decent living standards needed to support human development (see Table 4).

In this section, we determine the extent to which some of these Indonesian HDI-forming variables, with some SDG targets set by the United Nation Development Programme, should be achieved by 2030. This study predicted the value of some strongly related variables to HDI Indonesia by 2030, and compared with the same variable in the SDGs, i.e. variables for SDG numbers 1, 3, 4 and 8. This selection is based on adherence to research problems and data limitations.

Several additional treatments in data processing with this method were performed for the achievement of optimal results, i.e. (a) added some indicators related to the research variables: maternal mortality rate (MMR), gross domestic product (GDP) per capita, and poverty line (PL); (b) in the trend linear processes, only one function estimate was chosen, with a score of \( R^2 \) more than 75%, to ensure the accuracy of the model; and (c) the period of secondary data used, 2007-2014, required a number of years for 2030 predictions of \( n = 23 \). With the linear trend method, we obtained the estimated function and predicted value of several variables for 2030 (see Table 5).

Furthermore, we conducted a comparison analysis between the predicted results for 2030 with SDG\(^{43}\) numbers 1, 3, 4 and 8, as follows.

**Goal 1. End poverty in all its forms everywhere**

<table>
<thead>
<tr>
<th>SDGs, targets and indicators</th>
<th><strong>Target 1.2:</strong> By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicator 1.2.1:</strong> Proportion of population living below the national poverty line (HCl), by sex and age</td>
<td></td>
</tr>
<tr>
<td>Conditions in Indonesia by 2030</td>
<td>By 2030, PL = IDR 516,094.00 (monthly) and HCl = -1.11756 (%). This means there is no population with income per capita under the poverty line. Otherwise, Indonesia is free from poverty and reaches the SEG target (HCl counts all people and does not divide by gender).</td>
</tr>
</tbody>
</table>

\(^{43}\)“Sustainable Development Goals.”
Goal 3. Ensure healthy lives and promote well-being for all at all ages

| SDGs, targets and indicators | Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
| Indicator 3.1.1: MMR |
| Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
| Indicator 3.2.1: Under-five mortality rate |
| Indicator 3.2.2: Neonatal mortality rate |

Conditions in Indonesia by 2030

By 2030, MMR = 0.28 per 100,000 live births. This means Indonesia’s MMR is much lower than the SDG 2030 target. Thus, Indonesia is expected to realise the SDG.

By 2030, Indonesia’s IMR prediction is 28.28 per 1000 live births. Compared with under 5-year mortality, Indonesia’s IMR has almost reached the SDG target. Thus, for this third purpose, it is predicted the SDG achievement is related to MMR and IMR, while neonatal mortality cannot be predicted (IMR for ages under one year).

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

| SDGs, targets and indicators | Target 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university |
| Indicator 4.3.1: Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex |
| Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy |
| Indicator 4.6.1: Proportion of population in a given age group achieve at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex |

Conditions in Indonesia by 2030

Participation level in education or SER, calculated by the number students. By 2030, SER for teens and adults (senior high school) or SER₁ = 85.53%, while SER for junior high school or SER₂ = 71.50%. Both indicators were close to 100%. It can be interpreted that, by 2030, most Indonesian people are educated. Thus, the SDG target for education is reached (SER data does not divide by gender).

By 2030, Indonesia’s literacy rate (LR) was 101.57%, meaning, in that year, Indonesia was liberated from illiteracy, or the SDG target for literacy eradication was reached (LR data does not divide by gender and data for numeracy skills does not available).

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

| SDGs, targets and indicators | Target 8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries |
| Indicator 8.1.1: Annual growth rate of real GDP per capita |
| Target 8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-small and medium-sized enterprises, including through access to financial services |
| Indicator 8.3.1: Proportion of informal employment in non-agriculture employment, by sex |

Conditions in Indonesia by 2030

By 2030, the annual GDP per capita of Indonesia = 5,032.497674 (USD) with growth rate = 1.429%, or less than 7% per year, which means Indonesia's GDP per capita growth rate does not reach the SDG target.

By 2030, the number of MSEs = 56,019,733 (million) units, with the number of employees = 150,383.10 (million). Employee growth rate of MSEs is 18.70%. In this case, we collected MSE data from Indonesian banking, so we believe all employees have access to financial services. Because of data limitations, we cannot calculate the proportion of non-agricultural informal sector workers.
CONCLUSION

The results of this study indicate inclusion activities through ZIS distribution improve community welfare and the development of MSEs, as well as their relationship to human development in Indonesia. This means a ZIS institute’s inclusion activities contribute to community welfare and MSE development. It also plays a role and is a dominant factor in human development in Indonesia. Furthermore, this study provides evidence of a trend towards achieving some SDGs by 2030, through inclusion activities undertaken by ZIS institutes.

Based on this, it is time for the government and people of Indonesia, most of whom are Muslims (approximately 87.18% = 207,175,708 people), to pay serious attention to the implementation of ZIS management. This empirical study shows the inclusion activities of ZIS institutes, in social, economics and finance areas, through the distribution of zakat in particular, are an instrument of the fiscal system that is pro-poor and highly reliable.

So, serious attention is needed from the Indonesian government and relevant stakeholders into the activities of ZIS institutions, so they can become more effective, efficient and professional, and, in the future, be a sustainable ZIS institution, which will help achieve sustainable development for Indonesia.

LIMITATIONS AND FURTHER RESEARCH

There were several limitations to the methodology used in this study. Several indicators of social welfare (education, health, income) and MSE development were measured based on secondary data. Human development data was measured based on secondary data from HDI Indonesia report, calculated using a new method with four indicators: life expectancy, education, health and income per capita.

Further, this study’s conclusions are limited in relation to the extent to which contributions from inclusion activities through the distribution of ZIS affect the variables of human development and sustainable development. This is due to the limitations of available data and time, so only the relationship is discussed.

Given the high variety of inclusion activities through ZIS distribution, further detailed research is advisable to map the entire organisation of ZIS management, clarify all activities and performance, and then measure the contributions to human development and economic development in Indonesia.

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ACKNOWLEDGEMENTS.

We are grateful to Bambang Soedaryono and Etty Murwaningsari for the opportunity as well as the advice given for this article. We are also grateful to our colleagues for their suggestions and comments. The various errors that exist are our responsibility.

TABLES

Table 1. OLS result – Inclusion activity

<table>
<thead>
<tr>
<th>Model</th>
<th>General equation</th>
<th>Sign F (Anova)</th>
<th>$R^2$ adjusted</th>
<th>Sign t-DZ</th>
<th>Sign t-DIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>1. SER = f (DZ, DIS)</td>
<td>0.033$^a$</td>
<td>0.861</td>
<td>0.026</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>2. MYS = f (DZ, DIS)</td>
<td>0.009$^a$</td>
<td>0.961</td>
<td>0.004</td>
<td>0.661$^*$</td>
</tr>
<tr>
<td></td>
<td>3. LR = f (DZ, DIS)</td>
<td>0.082$^a$</td>
<td>0.572</td>
<td>0.035</td>
<td>0.243$^*$</td>
</tr>
<tr>
<td>M2</td>
<td>1. CDR = f (DZ, DIS)</td>
<td>0.034$^a$</td>
<td>0.722</td>
<td>0.016</td>
<td>0.928$^*$</td>
</tr>
<tr>
<td></td>
<td>2. IMR = f (DZ, DIS)</td>
<td>0.001$^a$</td>
<td>0.966</td>
<td>0.000</td>
<td>0.614$^*$</td>
</tr>
<tr>
<td></td>
<td>3. LEB = f (DZ, DIS)</td>
<td>0.013$^a$</td>
<td>0.826</td>
<td>0.009</td>
<td>0.299$^*$</td>
</tr>
<tr>
<td>M3</td>
<td>1. $\Sigma$ Unit = f (DZ, DIS)</td>
<td>0.005$^a$</td>
<td>0.896</td>
<td>0.002</td>
<td>0.830$^*$</td>
</tr>
<tr>
<td></td>
<td>2. $\Sigma$ Labour = f (DZ, DIS)</td>
<td>0.018$^a$</td>
<td>0.801</td>
<td>0.009</td>
<td>0.775$^*$</td>
</tr>
</tbody>
</table>

Sources: The results of data processing of M1, M2, M3 using SPSS. Level of significance $\alpha$ 5%; *not significance

Table 2. OLS result – Economic and financial inclusion activities

<table>
<thead>
<tr>
<th>Model</th>
<th>General equation</th>
<th>Sign F (Anova)</th>
<th>$R^2$ adjusted</th>
<th>Sign t ($\Sigma$ Unit)</th>
<th>Sign t ($\Sigma$ Labour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M4</td>
<td>INCpc = ($\Sigma$ Unit, $\Sigma$ Labour)</td>
<td>0.000$^b$</td>
<td>0.919</td>
<td>0.013</td>
<td>0.219$^*$</td>
</tr>
</tbody>
</table>

Sources: The results of data processing of M4 using SPSS. Level of significance $\alpha$ 5%; *not significance

Table 3. OLS result – Social welfare, income against poverty

<table>
<thead>
<tr>
<th>Model</th>
<th>General equation</th>
<th>Sign F</th>
<th>$R^2$ adjusted</th>
<th>Sign t SER</th>
<th>Sign t CDR</th>
<th>Sign t LR</th>
<th>Sign t IMR</th>
<th>Sign t INCpc</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5</td>
<td>HCl = f (SER, LR, CDR, IMR)</td>
<td>0.003$^b$</td>
<td>1.000</td>
<td>0.101</td>
<td>0.019</td>
<td>0.091</td>
<td>0.055</td>
<td>-</td>
</tr>
<tr>
<td>M6</td>
<td>HCl = f (INCpc)</td>
<td>0.000$^b$</td>
<td>0.932</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Sources: The results of data processing of M5 and M6 using SPSS. Level of significance, $\alpha$ 5%
### Table 4. The result of Pearson correlation analysis

<table>
<thead>
<tr>
<th>HDI</th>
<th>Pearson correlation</th>
<th>SIG. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDI</td>
<td>.525**</td>
<td>.227</td>
<td>7</td>
</tr>
<tr>
<td>MYS</td>
<td>.963*</td>
<td>.001</td>
<td>7</td>
</tr>
<tr>
<td>LR</td>
<td>.988**</td>
<td>.075</td>
<td>7</td>
</tr>
<tr>
<td>LEB</td>
<td>(.998)**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>IMR</td>
<td>(.999)**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>CDR</td>
<td>(.959)**</td>
<td>.001</td>
<td>7</td>
</tr>
<tr>
<td>SUM</td>
<td>.991**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>LAB</td>
<td>.964**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>INC</td>
<td>.999**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>HCI</td>
<td>(.974)**</td>
<td>.000</td>
<td>7</td>
</tr>
<tr>
<td>HDI</td>
<td>1</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

Sources: The results of data processing of M7 using SPSS. ** Level of significance 0.01 (2-tailed)

### Table 5. The function estimation and predicted value (n=T= time)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unit</th>
<th>Function estimation(^{1})</th>
<th>R(^2)</th>
<th>Predicted value (2030)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>CDR - (per 100,000)</td>
<td>CDR = -0.0114T + 7.2364</td>
<td>0.8571</td>
<td>6.97</td>
</tr>
<tr>
<td></td>
<td>IMR - (per 1,000)</td>
<td>IMR = -0.1881T + 32.611</td>
<td>0.9998</td>
<td>28.28</td>
</tr>
<tr>
<td></td>
<td>MMR - (per 1,000)</td>
<td>MMR = -9.2397T + 268.23</td>
<td>0.9948</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>LEB - (years)</td>
<td>LEB = 0.1881T + 67.389</td>
<td>0.9998</td>
<td>71.72</td>
</tr>
<tr>
<td>Education</td>
<td>SER1 - (%)</td>
<td>SER1 = 1.2584T + 59.452</td>
<td>0.8678</td>
<td>85.53</td>
</tr>
<tr>
<td></td>
<td>SER2 - (%)</td>
<td>SER2 = 1.9586T + 40.285</td>
<td>0.9246</td>
<td>71.50</td>
</tr>
<tr>
<td></td>
<td>LR - (%)</td>
<td>LR = 0.4545T + 91.112</td>
<td>0.7813</td>
<td>101.57</td>
</tr>
<tr>
<td>Income per capita</td>
<td>INCpc - (Monthly IDR)</td>
<td>INCpc = 62532T + 265011</td>
<td>0.9878</td>
<td>1,703,247.00</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>(Annual, USD)</td>
<td>GDPpc = 1849.2T(^{0.3193})</td>
<td>0.8260</td>
<td>5,032.49767</td>
</tr>
<tr>
<td></td>
<td>Rate of growth (%)</td>
<td>((\text{GDPpc2030} - \text{GDPpc2029}) / \text{GDPpc2029})</td>
<td>-</td>
<td>1.429</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>HCI - (%)</td>
<td>HCI = -0.7782T + 16.793</td>
<td>0.9445</td>
<td>-1.11756</td>
</tr>
<tr>
<td></td>
<td>PL - (monthly IDR)</td>
<td>PL = 15860T + 151314</td>
<td>0.9952</td>
<td>516,094.00</td>
</tr>
<tr>
<td>MSE development</td>
<td>(\Sigma) Unit (x 1,000)</td>
<td>(\Sigma) Unit = -54.923T(^2) + 1589T + 48527</td>
<td>0.9903</td>
<td>56,019.733</td>
</tr>
<tr>
<td></td>
<td>(\Sigma) Labour (x 1,000)</td>
<td>(\Sigma) Labour = 2695.7T + 88382</td>
<td>0.9432</td>
<td>150,383.10</td>
</tr>
</tbody>
</table>

Sources: The function estimation is the result of data processing with linear trend method using Excel
BIBLIOGRAPHY


Law of the Republic of Indonesia Number 23 Year 2011 About Zakat Management.


