

Investigating the Impact of Zakat on Poverty Alleviation: A Case from West Sumatra, Indonesia

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ABSTRACT

Muslim population in West Sumatra is vast, thus, it has significant potential of zakat. In the province, the regulation of compulsory zakat which is directly deducted from the local State Civil Apparatus (ASN) salaries has been practiced. This regulation has a positive impact on the collection of zakat funds in West Sumatra, yet the position of zakat in reducing poverty in the province demands a discussion in scholarly work. This study appointed 200 respondents and employed poverty indicators to investigate the impact of Zakat on poverty alleviation in the province. The results indicated that zakat promotes poverty reduction. This research also proves concisely the poor can exit the poverty line with Zakat. This work implies the role of government in supporting Zakat as monetary tool in poverty alleviation.

Keyword: Zakat, West Sumatera, Exit Poverty, BAZNAS

INTRODUCTION

Poverty is an individual situation, not individual characteristics or behavioural patterns (Watt, 1968). This point of view leads to the definition of poverty as a situation where individual consumption is minimal, while prosperity is defined as a situation where there is a slight narrowing of consumption. Poverty is most often classified as something chronic and temporary (Murdoch, 1994). Poverty is still an interesting topic discussed in the field of research. One way to calculate the depth of poverty is by measuring the poverty gap, measuring how far the average poor person or poor family is below poverty thresholds. Islam has Zakat as an instrument to reduce poverty.

Hassan and Khan (2007) said that Zakat is one of the most powerful tool in poverty alleviation. Zakat yield is enough to cover needs. That is, the assumption of zakat must be based on Shariah opinion which allows the results

to be significant enough to achieve the target in reducing poverty (Kahf, 1997). Zakat is included as the third pillar of Islam. Zakat in Islam is not just worship and virtue but also an important role in economic growth that has an impact on the people welfare.

Indonesia as the fourth-largest population in the world with 87.21 percent is Muslim (Ministry of Religion, 2016). Of the percentage of Indonesian poor population is 9.41 per cent. In general, this indicates that the Indonesian Muslim population with poverty levels can be balanced with the existence of zakat.

Based on research by Firdaus et. al. (2012), the potential of national zakat in 2011 reached 3.4 percent of total gross domestic product, or in other words the potential of zakat in Indonesia was estimated at Rp.16.6 billion. The potential of zakat in Indonesia described is not yet supported by the collection of zakat fund (Puskas BAZNAS 2019). The latest data shows that there is a gap

between the potential of zakat and its collection. This can be seen from the data on the collection of national zakat, by the official zakat management organization in 2015 which reached Rp. 252.8 million or less than 1.3 percent of its potential (Puskas BAZNAS, 2016).

One of the provinces in Indonesia which has considerable potential is West Sumatra with a population of more than 5 million people where 97.42 per cent is Muslim (Ministry of Religion,

2016), with a percentage of poverty of 6.42 per cent. This certainly supports the existence of a large potential of zakat of Rp.120.7 million UD West Sumatra (Firdaus et. al. 2012). The zakat fund in Indonesia is managed by the national board of zakat, Republic of Indonesia (BAZNAS). This institution is operated in the nationwide of Indonesia. BAZNAS West Sumatra is one of the institutions that has been collecting the highest amount of zakat funds.

Table 1. Total Collection and Distribution of Zakat Funds in BAZNAS West Sumatra 2013-2018

Years	Collected Zakat Funds (Rupiah)	Percentage difference (%)	Distributed Zakat Funds (Rupiah)	Percentage difference (%)
2013	5 698 039 385	-	4 313 818 278	-
2014	6 826 525 113	0.19	5 069 317 746	0.17
2015	7 463 013 735	0.09	5 966 826 320	0.17
2016	11 149 385 130	0.49	6 845 752 500	0.14
2017	8 519 615 809	-0.23	8 838 308 200	0.29
2018	12 815 438 981	0.50	8 134 607 000	-0.07

Source: BAZNAS Province of West Sumatra 2018

Table 1 informs that there is an increase in zakat funds collected from 2013 to 2017 in BAZNAS West Sumatra. In the previous research on zakat as a reduction in poverty by Hassan and Khan (2007), it is mentioned that;

- 1) Zakat can alleviate the targeted budget category for poverty alleviation for other budget needs.
- 2) Zakat can increase the potential for taxation through increased productivity, employment and results.

Various policies and strategies have been adopted to reduce poverty, but the fact remains that poverty still exists. Muslim countries inherit powerful

institutions from Zakat, almsgiving and endowments to fight poverty. Therefore, this study aims to investigate the impact of zakat on poverty alleviation, with a special case from West Sumatra, Indonesia.

LITERATURE REVIEW

Zaim (1989) and Powell (2010) explained that Zakat can be literally translated as “purity” or, in verbal form “to be pure”. In the context of English, zakat is usually translated as “almsgiving”, meanwhile in al-Qur’an, it refers to as ease the burden of the poor, as money, food, or clothing; charity gift (Powell, 2010; Bukowski, 2014).

In a simplified context, zakat is an obligation imposed on a Muslim who has attained *Nisab* and must pay 2.5 percent of the income he gets for one year. The Payment of zakat can be in the form of property owned. The 2.5 percent is not a fixed amount and may be modified depending on the property subject to zakat.

Zakat has a positive effect on economic growth. Paying Zakat promotes the growth of faith and economic growth. As a redistribution of income and wealth and reducing the phenomenon of inflation and poverty, other social and economic problems.

Miah (1992), Sarea (2012), Bukowski (2014), Bakar & Rahman (2007) elaborated that zakat serves as a unique mechanism for mandatory transfers of income and wealth to bridge the gap between the rich and the poor in society. Zakat can gradually increase employment and income in the economy, thereby increasing people's living standards and ultimately increasing the aggregate volume of zakat collections. On this point, zakat has a positive impact on the rate of economic growth in terms of poverty alleviation and reduction of unemployment (Ahmad, 1989).

Study in Bangladesh by Hassan and Khan (2007) found that the good management of zakat can reduce international monetary assistance (debt), which significantly reduce the national debt (Hassan & Khan, 2007). Some economists project that in 2004 to 2005, the potential of zakat funds could contribute in reaching 43 percent of Bangladesh's annual development plan (Shirazi & Amin, 2009).

The following study in Malaysia illustrates the approach to strengthening the existence of the zakat system in Malaysia's socio-economic development. It is similar to a tax deduction on salaries,

a mandatory zakat deduction on the income of all Muslims. In the country, Zakat management is under the authority of the state government.

The concept of zakat itself is a fundamental basis for Islamic economics to bring a balance between rich and poor people and also to strengthen the nation's entire economy and a large worldview (Al-Mamun & Haque, 2015). However, like a strategy to reduce poverty, the capacity of the poor must be developed through health, education, vocational training facilities, and others. So that poor people can get out of trap poverty. In addition, business entrepreneurship must also be developed based on priority.

The entrepreneurship development program has the possibility to not only eliminate poverty but also create employment opportunities for poor people. Proper payment of zakat amount with the right method to eliminate poverty from Muslim communities will ultimately help bring peace, harmony and prosperity to the Muslim world (Hoque, et al., 2015).

In the study done by Shirazi (2014), it was highlighted the critical role of zakat in poverty alleviation in Bangladeshi context. In that, zakat funds is believed to replace government budget expenditures in the range of 21 percent of the Annual Development Plan (ADP). Furthermore, zakat can increase productivity, employment, and output which consequently will increase the government's tax potential. Unfortunately, the government and the global stakeholders seem to be less aware to include zakat as an instrument of poverty alleviation.

Regarding zakat distribution, it has a significant and positive influence on increasing income distribution for the poor and needy (Ali et. al., 2013). In a study with the Human Development

Index (HDI), it can be concluded that there was indeed an increase in the HDI of *Mustahiks* (zakat recipients) households in the period being observed. There are several possible reasons why *Mustahiks* who received productive zakat assistance are improved their welfare status. In this regard, it is due to the investments in productive capital, in addition to having microfinance which can encourage growth in income and fulfill basic needs. Further, an appropriate training and empowerment programs can also be essential factors to strengthen household awareness in having good education (Nurzaman, 2016).

Furthermore, Kasri (2017) discussed the Determinants of Poverty among zakat recipients in Indonesia using household level analysis. The results show that the lower the age, the lower the education, the less formal employment, the smaller the size of the household, are related to the higher probability of being poor. The results show that such group of people should be the main target of zakat distribution, notably in Indonesia's context.

As explained in the above texts, it is evident that zakat has been found to positively impact on transforming its recipients into the group of people with financially stable. This study aims to extend the evidence from West Sumatra, Indonesia in that regard.

RESEARCH METHODOLOGY

The main data used in this study are primary data from community surveys with respondents who have income below the poverty line and receive assistance from zakat funds. Primary data is taken using a questionnaire that provides information about the characteristics of the respondent's

household. Based on secondary data, the amount of data used is 200 respondents taken from all cities and regencies in West Sumatra, Indonesia.

This study uses the method of calculating the Poverty Indicator and Average Time Taken to Exit Poverty. The analysis of this study assesses how the positive impact of zakat on poverty and also calculates how many years the community estimates can get out of the cycle of poverty.

Analysis of Poverty Indicators

According to Foster, Greer and Thorbecke (1984), there are several studies of poverty defined by ethnicity, geography, or other lines. Such an approach to poverty analysis places requirements on poverty measures in addition to those proposed by Sen (1979). In particular, the question of how to measure the linking of subgroup poverty with extreme poverty is very important for its application in the form of analysis. At the very least, one would expect that a reduction in the poverty rate of a *ceteris paribus* subgroup must reduce poverty for the population as a whole.

There are many analysis calculations for poverty but using poverty indicators we can also explain how many households are still categorized as poverty and depth of poverty. The Central Statistics Agency (BPS) uses several general indicators to measure poverty and inequality, namely the 'headcount ratio', the 'poverty gap index', and 'the sen index' and the 'FGT Index'. Meanwhile, according to Beik and Arsyianti (2016), to measure the level of poverty in a region, some differences need to be taken into account, for instance, the distance between the average poor household and the poverty line. In terms of measuring poverty levels also need to be considered

between poor households. Poverty alleviation programs have been well distributed to accumulate in certain groups. The following general poverty indicators are as follows:

Headcount ratio (H)

Headcount Ratio Index is a poverty indicator that measures the number of poor people below the poverty line. The way to assess the level of poverty in any community is to obtain a modest number of poor people. Poor people are those whose income falls low of the specified poverty line (UNDP 2009). In this study, the poor category was based on the poverty line standard issued by the Indonesian Central Bureau of Statistics. This indicator is used to calculate the percentage of poor people in an observation population. For this ratio calculation:

$$H = \frac{q}{n}$$

Information:

H = The ratio of the number of employees (0 to 1)

q = Number of Households that Have Income Below the Poverty Line

n = Total population

The family poverty line is obtained from multiplying the per capita poverty line per month with the average family size of the poverty line of West Sumatra Province is Rp. 476 554. The headcount usage ratio index in this study aims to calculate the number of households receiving zakat higher than the poverty line and can determine the number of mustahik that can be obtained through the utilization of zakat. If the value of the headcount index is reduced, it means that the utilization of zakat has a positive influence, because it can reduce the number of mustahik living

with income below the poverty line. In other words, the smaller the headcount ratio of the index, the fewer the number of poor people.

Poverty Gap Index (P1) and Income Gap Index (I)

The poverty gap index (poverty reduction) and income gap index (income) are gauges used to identify and measure poverty levels. the poverty gap index is used to measure the difference between the average income of poor households below the poverty line and the poverty line. Beik and Arsyianti (2016) cite this program is needed to determine the amount of funds needed by a program or cash transfer policy or government to transfer people. the calculation formula is as follows:

$$P_1 = \sum_{i=1}^q \frac{z - y_i}{q}$$

Information:

P1 = poverty gap index

z = Poverty Line

y_i = 1st household income

q = Number of households that have income below the poverty line.

If after the distribution of zakat, then the value of this index will decrease, meaning that zakat has a positive meaning on the submission of poverty levels. Or in other words, the smaller this index, the less the difference between the aggregate income of the poor and the poverty line is getting better.

Furthermore, the Income Gap Index is used to calculate the percentage of poor households whose opinions depend below the poverty line. The smaller the index value, the fewer poor households in the community. This second index can represent the success of a program. The following income gap formula is as follows:

$$I = \sum_{i \in S(z)} \frac{g_i}{qz}$$

Information:

- I = Income gap index
- gi = z - yi (Difference in income between poor households with poverty line, yi < z)
- z = Poverty line
- yi = Income of household number i
- q = Number of mustahik households that are below the poverty line

Sen Poverty Index (P2) and The Foster-Greer-Thorbecke (FGT) Index (P3)

There are two types of indicators that can illustrate the level of expenditure inequality among the poor, namely Sen Index (P2) and FGT Index (P3). The second indicator formula is as follows:

$$P_2 = H [I + (1 - I)G_p]$$

Information:

- P₂ = Sen Index
- H = Headcount ratio
- I = Income gap index
- G_p = This poor coefficient of gini

The Foster-Greer-Thorbecke (FGT) index is based on the gap normalized $g_i = (z - y_i)/z$ from poor people i, who lack income which is stated as part of the poverty line. See gi as a measure of individual poverty for the poor. Here is the FGT Index formula:

$$P_3 = \frac{1}{n} \sum_{i=1}^a \left| \frac{g_i}{z} \right|^\alpha$$

Information:

- P₃ = FGT Index
- n = Number of households observed
- z = poverty line
- g_i = Short-fall income of the i poor population
- α = Sensitivity parameter with a value of ≥ 0

Beik and Arsyianti (2016) explained that the Sen Index formula (P2) above is a combination of three indices namely the headcount ratio, the income gap ratio, and the Gini coefficient of the poor population. P2 is worth 0 if there are no more households that have income below the poverty line, and value 1 if all households have income below the poverty line. While the FGT Index is the development of the Poverty Gap Index (P1), which can be used to see total poverty equal to the weighted average of poverty in the population subgroup.

Murniati and Beik (2014) added that the smaller the value of the FGT Index, the smaller the percentage of poor households, the gap between the aggregate income of poor households and the poverty line is also less, and the income gap is getting smaller. If after the utilisation of zakat, the value of this index has decreased, meaning that zakat has a positive impact in reducing the severity of poverty.

Analysis of Average Time Taken to Exit Poverty

Morduch (1998) introduced a method for measuring the average time needed by households to reach a particular poverty line or regardless of poverty called Average time taken to exit poverty. This method makes it possible to describe the potential for future economic growth as well as the basis of appropriate economic policy in the future. Morduch (1998) shows that only dividing the Watts size by some hypothetical growth rates g, where g > 0, gives an interesting cardinal interpretation.

The modified index reflects the number of years a population needs to get out of poverty needed to ensure all income grows at the “g” level. Thus, providing a simple metric of potential economic growth to reduce poverty and

in this way can help to illuminate the contested policy debate. The method of calculating this method is formulated as follows:

$$t_g^j = \frac{\ln(z) - \ln(y_j)}{g}$$

Information:

t_g^j = Average Time Taken to Exit Poverty

z = Poverty Line

y_j = Income of poor households in j (where y_j grows constant positively at g per year)

g = Economic growth rate per year in a region

Mussa (2015) defined as the time needed by households to reach the poverty line through economic growth (income), which is assumed to grow steadily with a constant amount per year. This method can also be used to increase the level of household expenditure. While the compilation of households is above the poverty line.

Based on the research done by Gibson and Olivia (2002) in Papua New Guinea to calculate the level of poverty in this area. This study calculates the size of the time out of Papua New Guinea. The results of this study indicate that the average time taken to get out of poverty is 6.2 years if the growth rate is 2 percent. One reason for the average time of only 6.2 years is more than two-thirds of the population above the poverty line, so the time of discharge is zero. Things that should be considered by policymakers are ways to reduce poverty of policymakers. Moreover, it takes 20.5 years to get out of inequality.

RESULTS AND DISCUSSIONS

Analysis of the Impact of Zakat in West Sumatra Province Based on Poverty Indicators

Table 2. Indicators of Poverty Before and After Zakat

Indicator of Poverty	Before zakat	After zakat	Change (%)
H	0.59	0.185	-0.68
P1 (Rp)	633 110.71	326 186.11	-48.5
I	0.27	0.14	-48.5
P2	0.30	0.08	-73.3
P3	0.06	0.01	-83.3

Source: Calculated by Authors (2019).

Headcount Ratio Index

The use of this index is intended to determine the number of poor households that can be reduced through efforts to utilize zakat. Based on the calculation, it is known that the Headcount Ratio (H) value has decreased after the BAZNAS zakat empowerment program of 0.59 to 0.18. This decrease indicates that the zakat empowerment program in West Sumatra can reduce the number of poor households by 68 percent.

Poverty Gap Index and Income Gap Index

The Poverty gap ratio (P1) and the Income gap ratio (I) are indicators that can show the level of poverty in households in a region. Based on the Table 2, it is known that the utilisation of zakat provided by zakat institutions is from the previous Rp. 633.110 to Rp. 326.186. Likewise, the value of I has decreased from 0.27 to 0.14. Both of these indicate that the level of depth of poverty of households in West Sumatra was reduced after the zakat empowerment program by BAZNAS.

Sen Index Index and FGT Index

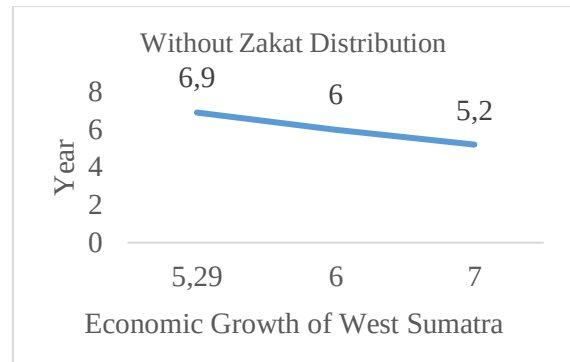
Sen Index (P2) and FGT Index (P3) are analytical tools used to measure the severity of poverty in a region. The results of the analysis show that the P2 value has decreased from 0.30 to 0.08. This value is known to be worth 0. Hence, there is no household that has income below the poverty line, whereas if it is worth 1 then all families have income above the current poverty line. While the P3 value shows a decrease from previous 0.06 to 0.01 This result shows that the empowerment program initiated by BAZNAS was able to reduce the severity of farmer households by 83.3 percent.

Average Time Taken To Exit Poverty Analysis Without And With Zakah

Based on Figure 1 and Figure 2, it is known that there is a decrease in the average time needed for beneficiaries of zakat empowerment programs to get out of poverty, or at least be able to reach the Poverty Line of West Sumatra Province. This calculation uses the assumption of economic growth in the Province of West Sumatra in 2017 which is 5.29 and in 2018 of 5.14 per year.

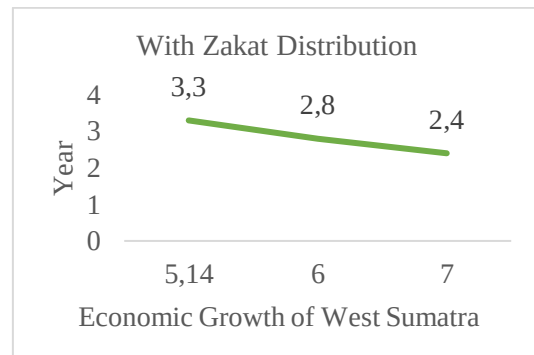
This shows that the management of zakat and the distribution of zakat by BAZNAS of West Sumatra to mustahik has been able to accelerate income increases while shortening the time the people who receive zakat funds can get out of poverty and can become a person who pays zakat. It can be noted the results of the analysis using the method of analysis of average time taken to exit poverty, from before it took 6.9 years without zakat and can be reduced to only 3.3 years if zakat can be optimized in its use.

Figure 1. Average Time of Taken to Exit Poverty Mustahik Household Without zakat distribution



Source: Prepared by Authors (2019).

Figure 2. Average Mustahik Time Taken to Exit Poverty of Households, there is a Zakat Distribution



Source: Prepared by Authors (2019).

Based on this research, it can be concluded that the zakat program managed by BAZNAS in West Sumatra Province is able to contribute positively to poverty alleviation programs. The performance of amil institutions in terms of distribution is quite good. Despite the increase in the aspect of zakat distribution, the collection of actual zakat is still far behind its potential. There is a big gap between the potential and the collected zakat.

If the value of economic growth in West Sumatra Province can increase to 6 to 7 percent, this will have an impressive impact repeatedly. Because the time needed for mustahik to get out

of poverty is getting faster. If the growth rises to 6 per cent without the zakat, the average value of time taken to exit poverty is 6 years, however, if it is accompanied by the distribution and utilization of zakat in a professional manner, it will decrease by 2.8 years. Especially, if the growth reaches 7 per cent, without zakat it takes 5.2 years but, after zakat only takes 2.4 years based on the formula average time taken to exit poverty.

Therefore, it is important to promote equitable economic growth. Not only for certain people who can experience economic growth, but people who fall into the middle to lower category can also face it. Zakat is helpful if it can be empowered properly and correctly. Based on the results of a study by Jonaidi (2012), the estimation results show that economic growth is negatively correlated with Indonesia's poverty level. This means that the more economic growth in Indonesia, the lower Indonesia's poverty. This is also proven in the average analysis tool taken time to exit poverty in this work.

CONCLUSION

The analysis using the indicators of the Headcount Ratio Index, the Poverty Depth Index and the Poverty Severity Index, shows that zakat can reduce poverty in West Sumatra, Indonesia. It may also be seen that with zakat, the underprivileged community can get out of poverty faster, than those of without zakat. In this regard, the government can optimise the collection of zakat funds in West Sumatra to best target in realising its potential and supporting the local agenda of poverty alleviation.

In the province, Zakat fund which has been collected reached Rp. 1.7 trillion, which falls short from the

expected potential amount. Likewise, zakat institutions are recommended to keep and improve their innovation in empowering Mustahik.

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Measuring Amil Happiness Using Psychological Approach: Evidence from Yogyakarta, Indonesia

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ABSTRACT

The implementation of Good Amil Governance as one of the important aspects of a standard of international zakat management, which is stated in Zakat Core Principles, requires an approach that is more than just amil competence and qualification aspects. The psychological perspective of amil also needs to be considered to obtain and maintain the best human resources. As a profession that is oriented towards social benefits, an amil has different working rhythm and consequences. This research aims to measure level of amil's happiness in the workplace and further study its impact on amil productivity. The result shows that amil is a satisfying job. Further, the most blissful factor for amil is work motivation, while the most unhappy factor for amil is the career path, which seems to be less promising. In addition, the happiness level of amil has a positive relationship with his or her productivity level. Therefore, psychology condition of an amil should be considered in order to increase the performance of zakat institutions.

Keywords: Amil Zakat, Good Amil Governance, Happiness, Productivity, Psychology
JEL Classification: D23, D91

INTRODUCTION

Poverty and the gap in economic welfare are the problems of developing countries. Therefore, the poverty alleviation and gap of economic decrease indicators are included in Sustainable Development Goals (SDGs) of The United Nations, as a development goal for human. Zakat becomes one of the right tools to reduce poverty and the gap of economic welfare (Beik, 2009). A study by Firdaus *et al.* (2012) found that the potential of zakat in Indonesia reached Rp.16.2billion or 3.4% of Indonesia's GDP in 2010. Further, in 2019, research done by BAZNAS Center for Strategic Studies shows that potential of zakat fund is at Rp.21.3billion. This

zakat fund can serve as a tool to decrease poverty and the gap in the economy.

According to Statistik Zakat Nasional (2017), the current collection of zakat remains at Rp. 454million or 2.8 percent from the measured potential. There are still many tasks to be done by zakat institutions in digging the potential of zakat. As an effort to optimize the existing potential, zakat management should be well driven by competent and credible institutions. Beik *et al.* (2016) provide the reference of Zakat Core Principles that are fundamental principles of zakat management as an effort by the zakat institutions to implement the ideal management zakat system.

One of the critical principles of zakat institutions is Good Amil

Governance. This is because amil is the motor of the system in zakat institutions covering administration, collection, and distribution of zakat. This matter strengthened by Rusydiana & Firmansyah (2017) in their research that put Good Amil Governance as the most priority aspect of Supervision. This shows that this aspect is one of the considered principles in supporting the optimization of existing zakat potentials.

The implementation of Good Amil Governance can be conducted by implementing the following aspects; transparency, accountability, responsibility, justice, and local wisdom (Chotib *et al.*, 2018). Therefore, it is necessary for an amil to be competent

and professional in accordance with the required field.

However, in addition to the competency and professional factors of an amil, the psychological well-being in the implementation of Good Amil Governance also needs to be a concern. In this regard, well-being has a broad meaning. Thus, the measurement of well-being using arranged indicators that not only to describe the condition of material prosperity but also lead to the condition of subjective welfare or happiness (BPS, 2017).

As elaborated in the above text, this paper aims to measure the degree of amil's happiness using a psychological approach method.

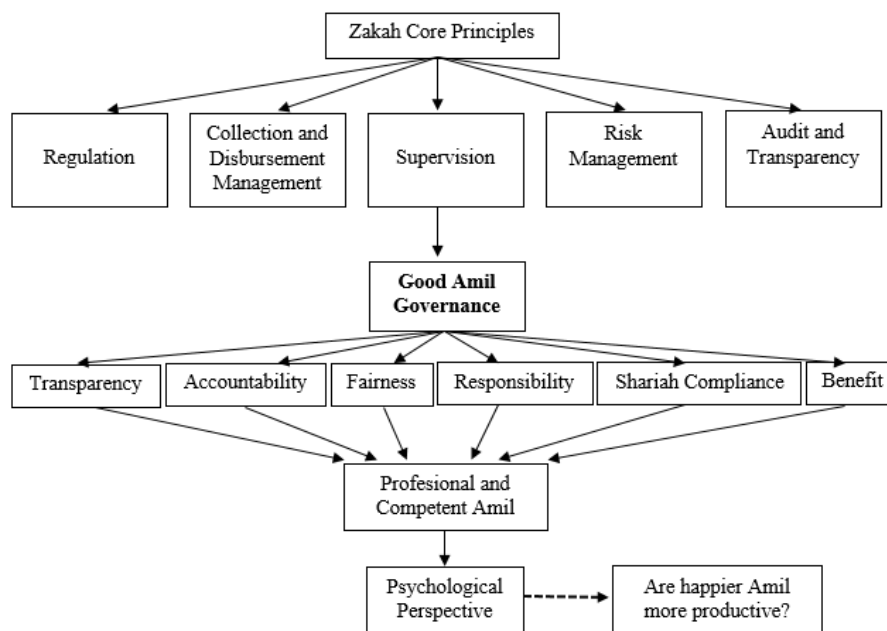


Figure 1. Framework of Thinking

Source: Authors' own.

LITERATURE REVIEW

In research conducted by Sharifzadeh & Almaraz (2014), it was found that happy workers tend to be more productive than those who are less happy. Workers also do not need to worry and can focus on

their work because all of their needs are satisfied. That also goes to amils. In this regard, an amil who works happily will be more loyal to the zakat institution where he or she works.

Cadmus (2012) in his study found that among the factors that

influence the happiness of a worker, in special relation to psychological well-being, is a relevant workload, work time and balanced life, decent salary, a positive environment, and a clear career path. Although happiness in workplace cannot be achieved continuously, these factors need to be considered by human resources (HR) managers. The target and productivity of the institution that will be achieved need to be determined realistically and wisely by looking at the aspects of the resources they have.

Work motivation has a positive impact on the commitment to an organization (Mangkunegara & Octorend, 2015). Work motivation also has a positive effect on employee happiness. Workers who are increasingly motivated and committed will work better and be satisfied (Sohail *et al*, 2014). As a non-profit institution, zakat institution has different characteristics compared to that of profit-oriented ones, including in managing their human resources. This circumstance is because there is no production or sales process in zakat institutions, but making the collection of zakat funds as a factor of production, then channeling the fund to the mustahik in order to equalize social economics condition in the society. These different goals make the work motivation of employees at the zakat institution different.

As the above, it can be concluded that the happiness of an amil in work is needed because the implementation of Good Amil Governance as one of the Zakat Core Principles cannot be carried out without the support of amil psychological factors. Disorders of psychological factors will harm amil's performance and his or her professionalism. For example, the factors of financial inadequacy, unclear career paths, less suitable work

environment, heavy workload, and passion discrepancy, should bring down an amil's performance.

Objectives

The psychological aspect of an amil is an essential variable in zakat institution. That is because the condition of an amil as a motor of zakat institution will determine the productivity and achievement of the institution. This research tries to look at the role and management of amil from a different perspective, which is related to the psychology of amil in managing zakat funds.

Psychological well-being can be measured through the happiness of amil in the workplace. Happiness can be measured through several latent variables. Thereby, there are 2 (two) objectives in this study which are; measuring happiness of amil zakat institutions in Yogyakarta, and investigating its impact on amil productivity.

Measuring amil happiness in Yogyakarta is interesting due to Yogyakarta is the happiest province in Java Island (BPS, 2017). Java Island is the most strategic island in Indonesia because it is the center of economic and business activities in the country. It also contributes the most to Indonesia's GDP. Meanwhile, Yogyakarta is one of the exclusive provinces in Indonesia and the happiest province among other special regions such as DKI Jakarta, Aceh, and Papua based on Indonesia Happiness Index.

METHODOLOGY

Work Happiness Factors of Amil

Happiness can be measured through several factors to describe amil

satisfaction as worker in general. The happier person will make him or her more productive at work (Sgroi, 2015). Based on the principle of Good Amil Governance in the Zakat Core Principles, an amil does not only have an orientation to work, but also charity under the zakat institution as a social organization at the same time. These factors can also illustrate the psychological side of an amil profession. The proxies of happiness of amil can be described by the following factors:

Table 1. Determinants of Happiness at Work

No	Determinants of Worker Happiness	Reference
1	Workload	Cadmus (2012), Shah <i>et al</i> (2011)
2	Career Path	Cadmus (2012), SEEK Asia (2017)
3	Financial Welfare/Salary	Cadmus (2012), SEEK Asia (2017), Wulandari & Widyastuti (2014)
4	Work Motivation	Sohail <i>et al</i> (2014), Mangkunegara & Octorend (2015)
5	Work Environment	Cadmus (2012), SEEK Asia (2017), Wulandari & Widyastuti (2014), Fernández <i>et al</i> (2017)
6	Working Time	Cadmus (2012), SEEK Asia (2017), Fernández <i>et al</i> (2017)
7	Passion	Spehar <i>et al</i> (2016), Purba & Ananta (2018)

Source: Prepared by Authors.

Types and Data Sources

The data used in this study is the primary data. It is obtained directly through field surveys. The data retrieval method is conducted by filling out the administered questionnaires that have been made and processed by the authors. The data in the questionnaire is ordinal. The data was obtained from 46 respondents who were amils of zakat institutions in Yogyakarta. The selection of respondents was done with a purposive sampling method, which determines the respondent based on the provisions made by the authors.

The amils involved in this study were from 3 (three) official zakat institutions, including BAZNAS Yogyakarta City, BAZNAS Yogyakarta Province, and Dompot Dhuafa (DD) Yogyakarta.

Analysis Method

The data obtained from the primary source was processed by a validity test to determine the validity of question as a proxy which illustrates the happiness of amil. After that, the reliability test is conducted to determine the level of questionnaire consistency. Furthermore, descriptive analysis is conducted to measure the happiness of amils in their working environment. The measuring scale is at the range from 1 to 5 where number 3 is neutral. The bigger the score describes the happier is an amil. Further, Pearson Correlation Analysis is used to determine the relationship between the happiness level of amil to the level of productivity at work.

RESULTS AND DISCUSSION

Validity and Reliability Test

After the completion of the questionnaires, the validity test was conducted. There were 25 from 35 questions that have fulfilled the prerequisites to be valid. The 25

questions have $r\text{-count} > r\text{-table}$ based on the significant test at a level of 5 percent. While the other ten questions were invalid because the error level of more than 0,05 percent.

Table 2. Result of Validation Test

Item	Indicator	Correlation Coeff.	r-table	Conclusion
X1.1	Work Motivation	0,746	0,444	Valid
X1.2	Work Motivation	0,492	0,444	Valid
X1.3	Work Motivation	0,493	0,444	Valid
X1.4	Work Motivation	0,714	0,444	Valid
X2.1	Working Time	0,673	0,444	Valid
X2.2	Working Time	0,490	0,444	Valid
X2.3	Working Time	0,528	0,444	Valid
X3.1	Work Environment	0,676	0,444	Valid
X3.2	Work Environment	0,577	0,444	Valid
X3.3	Work Environment	0,578	0,444	Valid
X4.1	Workload	0,763	0,444	Valid
X4.2	Workload	0,521	0,444	Valid
X4.3	Workload	0,809	0,444	Valid
X5.1	Career Path	0,728	0,444	Valid
X5.2	Career Path	0,696	0,444	Valid
X5.3	Career Path	0,562	0,444	Valid
X5.4	Career Path	0,602	0,444	Valid
X6.1	Passionate	0,513	0,444	Valid
X6.2	Passionate	0,694	0,444	Valid
X6.3	Passionate	0,723	0,444	Valid
X7.4	Passionate	0,796	0,444	Valid
X7.1	Salary	0,717	0,444	Valid
X7.2	Salary	0,684	0,444	Valid
X7.3	Salary	0,590	0,444	Valid
X7.4	Salary	0,665	0,444	Valid

Source: computed by Authors (2019).

Following the validity test above, the authors performed the reliability test to all variables considered valid. The test involved the consistency test of the questionnaire. Rule of thumb of alpha

value or composite reliability should be more than 0.7 although 0.6 is still acceptable (Hair *et al.* dalam Putri & Gunawan, 2014).

The result of the reliability test of the 25 valid questions shows that the questionnaire is highly reliable as can be seen in Table 3.

Table 3. Result of Reliability Test

Cronbach's Alpha	Number of Statement
0.945	25

Source: computed by Authors (2019).

Cronbach's Alpha 0.945 value shows that the 25 questions on the employed questionnaire have a relatively high degree of reliability. After validity and reliability tests, the analysis of the respondents' answers is further conducted.

Analysis of Amil's Happiness at Work

The result of a descriptive analysis obtained from the average of respondents has shown several findings. The career path was found to be the least unhappy factor for the sampled amils with 3.78 (the lowest score). The reason for being so, perhaps, the majority of amils in zakat institutions in Yogyakarta are employed based on contract scheme. This type of employment represents that amil profession is not a permanent job.

Further, regarding the permanent amil in the sampled institutions, as authors have found, only totaling 5 to 10 amils are employed permanently. Perhaps, such employment has led to the quick change of human resources, which to some degree, could create a risk to the zakat institution itself. It is important to be noted that the quality of an employee will be improved with a clear career path (Dewi & Utama, 2016). However, from

the current findings, the impermanent occupations factor, the career path offered by the zakat institutions, are found to be unclear and less promising.

Although zakat institution is a non-profit institution, the management must be professionally conducted. Therefore, amil as a zakat fund manager needs to have adequate and relevant qualifications and loyalty to the institution. If amil's turnover happens in a short time because the offered career path is less-promising, that regard will weaken the institution. Career path in zakat institution must be made different from those in the conventional company or civil servant.

Following the factor of career path, the workload was further found with a score of 4. It seems that workload in the sampled zakat institutions is less enjoyed by the respective amils. Perhaps, the workload given by the zakat institution does not meet the amil standard of qualification. The workload can encourage employee productivity, but excessive workloads will result in an adverse impact on the form of physical or mental fatigue (Irawati & Carolina, 2017).

Further, the next factor that contributes to the happiness of amil is passion based on the relationship between the expectation and abilities of amil and the current field of work. The result of this factor has a score of 4.02, which can be said to be quite good. This score, perhaps, means that the sampled amils's passions are in line with their tasks. The jobs in administration, finance, fundraising, management or services, are expected by the sample. Nevertheless, there is an important note in one of the statements as a proxy for the passion of work which is related to the desired job. On average, the respondents answered that they were not sure that

amil was the profession they wanted or aspired.

Another indicator that measures the happiness of amil is salary. The results show that the salary of an amil has a score of 4.03. This result represents that amils in zakat institution is quite happy with the salary they earn, notably in the context of amils who work in the sampled institutions. Based on the results of interviews, the average salaries of the amil certainly not as big as in companies or other profit institutions. However, the salary they earn is in accordance the work they have done. The amount of their income is above the regional minimum wage. The amount can fulfill daily needs, which is fair and reasonable.

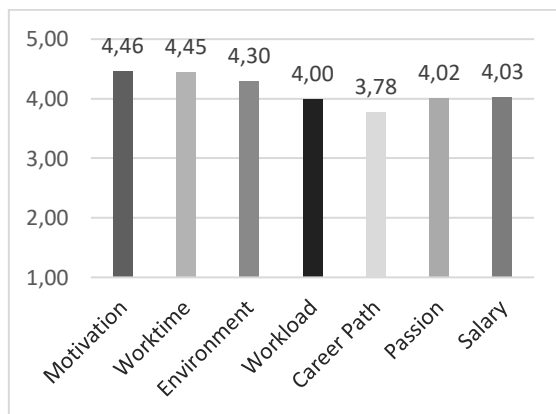
In addition to the above, the environment at work was also utilized to measure the happiness of amil. The environment in zakat institutions in Yogyakarta was found to be fairly good with a score of 4.30. This score is much better than the four previous factors. It means that the amils in zakat institutions in Yogyakarta are happy with the conditions of the existing environment.

A pleasant work environment supports employees to work productively. The colleagues in workplace also support each other and do not overturn each other's work. The highest quality standards also must be applied to keep the work environment productive and professional. Zakat institutions in Yogyakarta have implemented that regard. This condition was reflected in the sampled amil happiness score as above mentioned.

The other two factors that were found to be good for the happiness of amil in zakat institutions in Yogyakarta are the factors of working time and motivation. The office hours are not too tight and ideal (8 hours of work). On that, an amil is given proportional time for

vacation and leave. The policy about the standard of working hours and overtime is following the Law No. 13 of 2003 about Manpower. Furthermore, the amil can enjoy working moments, and daily work can be completed on time. The happiness score for working time factor is 4.45.

The last factor is work motivation. It contributes to the highest score as a happiness factor of amil zakat in Yogyakarta with a score of 4.46. Perhaps, this is because the motivation as an amil aims at helping people in need. Amil job is a noble profession as Allah mentioned in the Qur'an Chapter 9 (Surah At-Taubah) verse 60. The score of happiness based on this high working motivation shows that the amils are the ones who have a high social spirit and a good level of spirituality. Based on the work motivation they had, the amils feel happy even though they do not expect their current job.



Source: computed by Authors (2019).

Figure 2. Level of Amil Happiness by Determinants

Based on the seven factors as a mean of measuring the happiness of amil in Yogyakarta above, then an average score of 4.15 is obtained. This score shows that the profession of amil is a satisfying job and this means that the sampled amils are happy.

Happiness covers not only the material aspect but also non-material such as the needs of spirituality, social contacts, and suitability in the field of work. In this regard, the authors have records that zakat institution can do to increase the happiness of amil, which can improve career and development path of its amil.

The Relationship between Work Happiness and Productivity of Amil

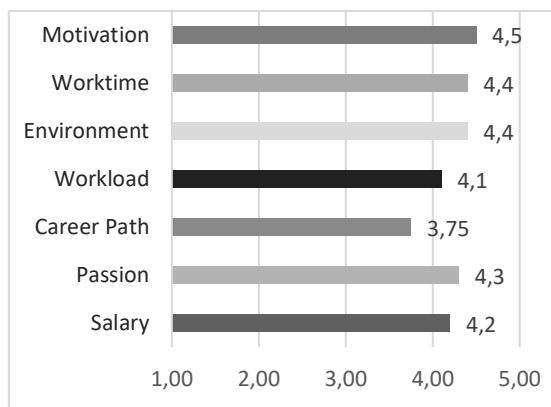
After knowing the level of work happiness of amil, it is important to investigate the relationship between work happiness to the productivity of amil in order to better understand this subject matter. In this study, the test is done following Sharifzadeh & Almaraz (2014) dan Sgroi (2015), who found that that happy workers tend to be more productive at work.

The result of the descriptive analysis from the questionnaires indicated that each happiness factor has different contributions to the level of amil productivity. The level of happiness from work motivation has the most significant contribution to the sampled amils productivity with a score of 4.50. Perhaps, this is because the work motivation factor encourages someone to work better while they enjoy the job. The happiness of amil as a result of the work motivation factor has a high score. Therefore, it is natural when the work motivation occupies the highest position in influencing productivity.

Furthermore, the factor which has the most significant contribution to amil productivity after work motivation is working time and working environment with the same score of 4.40. That was then followed by a passion for work with score of 4.30, salary with 4.20 and workload with a score of 4.10. While the factor that affects productivity with

the lowest score is the career path with 3.75.

As the level of happiness, the contribution of the career path in the zakat institutions makes amil feel unhappy, which may result in reduced productivity. Overall, the sampled amils agreed that the happiness factor is one of the factors that affect their productivity. That was indicated by the average score of 4.22, which states that each happiness factor has an impact on their work productivity.



Source: computed by Authors (2019).

Figure 3. The Amount of Each Factor Contribution to Amil Productivity

Further, this study has carried out a correlation analysis to find out the relationship between happiness and productivity level of amil. Table 4 shows the findings.

Table 4. Correlation Analysis between Happiness and Productivity of Amil

Correlation Value	Productivity Level of Amil
Happiness Level of Amil	0,899
Number of Variable (N)	7

Source: computed by Authors (2019).

The result of the Pearson correlation was 0.899 as can be seen in Table 4. These results indicate that there is a strong relationship between happiness and productivity level of amil. Therefore, even though amil is a satisfying profession, the determinants of happiness of the amil need to be continuously improved in order to increase the productivity of amil, especially in improving career paths and providing workload.

CONCLUSION

The happiness of amil zakat in Yogyakarta has been investigated in this study. The most blissful factor for amil is work motivation. The work motivation is the perception that amil is a noble profession in Islam who aims to help people in need through zakat funds. It can be concluded that the majority of amil had high spirituality and social sensitivity.

Adversely, the most unhappy factor is a career path that seems to be unclear and less promising. This factor could demotivate amil at work and reduce loyalty towards the institution. In order to keep and maintain the good amil governance, it is necessary to have a bright and promising career path map that including material plans such as financial and the position, and non-material advantages such as the scope of social contributions and flexibility time to work.

In addition, the level of work happiness of amil also was covered in this paper. It has a positive relationship with the level of work productivity. The happier an amil, the more productive at work he or she will be. Therefore, the psychological conditions of an amil must be concerned and maintained in order to improve the performance of zakat

institutions, especially for the implementation of Good Amil Governance in terms of human resources.

Finally, future research may study on similar field, which can be conducted in other regions and countries to support the evidence from the current findings.

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Governance of Formal Zakat Institution in Saudi Arabia; Issues and Challenges to Improving Zakat Payers' Compliance

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ABSTRACT

This study investigates the issues of governance practices of the formal zakat institution in Saudi Arabia, GAZT. It also attempts to develop a framework which explains how to improve zakat compliance through good governance. In order to achieve these objectives, the study employs a content analysis of relevant literature and qualitative interviews. Specifically, a total of 21 interviews were conducted with zakat experts in Saudi Arabia who represent diverse backgrounds to explore the issues and factors related to zakat governance-compliance relationship. The findings of the interviews' analysis suggested several issues that likely affect zakat payers' compliance in the Saudi context. These issues included the lack of control mechanisms that guarantee zakat payers' compliance, the perceived image of the GAZT role in relation to zakat, the lack of trust, and issues affecting the perceived procedural fairness. In addition, the analysis of the qualitative interviews was used to develop a framework that explains how to improve zakat compliance through good governance. This study contributes to the literature by investigating governance issues and challenges to improving zakat payers' compliance. Also, it provides practical implications for zakat administrators, especially in Saudi Arabia, to address these issues and improve the effectiveness of the zakat authority.

Keywords: zakat institutions, governance, Saudi Arabia, zakat payment compliance

INTRODUCTION

Zakat is a monetary, religious duty imposed on Muslims whose wealth is entitled to zakat payment according to shariah principles (Al-Qaradawi, 2002). The importance of zakat is manifested through its ranking among the five pillars of Islam and its sizable socio-economic impact within the Muslim communities. Zakat is intended to provide a fair redistribution of wealth, aiming to alleviate poverty and reduce the socio-economic gaps. Zakat in the early history of Islam, had played a crucial role in the socio-economic

prosperity and development of Muslim societies. Several reports suggest that zakat was effective in eradicating poverty in certain times. For instance, during the period of Umar bin Al-Khattab (13-22H) and Umar bin Abdul Aziz (99-101H), it was reported that zakat officers could not find needy recipients in some regions (Al-omar, 1996; Al-Qaradawi, 2002). These examples are evidence that zakat can be a powerful and effective mechanism in combating poverty and income inequality, especially if appropriately managed.

Despite the enormous impact of zakat in the past, it is believed that the role of zakat has been insignificant in contemporary Muslim countries. Evidently, many Muslim countries suffer from widespread poverty and increasing income inequality. Many scholars assert that zakat has not been allowed to fulfil its potential role within the economic policies of current Muslim countries (Al-Qaradawi, 2002; Shaikh, 2016; Shihata, 2006). The absence of formal and regulated zakat institutions in the majority of Muslim countries are evidence of their negligence to the role of zakat. However, a few Muslim countries have established zakat regulations and institutions for managing zakat, such as Saudi Arabia, Sudan, Malaysia, and Pakistan. Nonetheless, it is believed they are facing significant challenges with ensuring zakat payment compliance and improving their effectiveness (Guermat, Tucker, & Al-Utaibi, 2003; Saad & Haniffa, 2014; Shirazi & Amin, 2006).

Although Saudi Arabia is seen as an immensely wealthy and resourceful country, poverty is said to exist on an increasing scale over the years. Despite the lack of official statistics concerning poverty in Saudi Arabia, several reports have indicated the significant magnitude of poverty that exists in the Kingdom. For example, S. AlDamigh (2014) mentions that the Gulf oil states are hardly distinguished between the rest of the Arab countries in the Human Poverty Index (HPI). According to statistics from the human development reports and other social indicators, Saudi Arabia has a poverty range between 10 – 20%. Moreover, there are non-official reports

estimating that about 20% of Saudis live under the poverty line (S. AlDamigh, 2014). Another indication of the extent of poverty can be seen in the numbers of welfare programs recipients. According to the latest official report, there are 1,222,411 citizens registered in the Social Security Agency under the Ministry of Labour and Social Development (Saudi Ministry of Labour & Social Services, 2017). This number represents about 16% of the Saudi population, excluding the non-Saudi citizens.

The rising poverty and increasing cost of living in the Kingdom have raised the public concerns over the effectiveness of the zakat authority in combating poverty issues. Such concerns have frequently been voiced, especially by zakat payers who are legally obligated to pay their zakat through the General Authority of Zakat and Tax (GAZT), which is the official zakat collection body in Saudi Arabia. Moreover, zakat payment compliance is deemed to be a significant challenge facing GAZT. The lack of zakat payers' compliance is evident based on recent statistics published by the GAZT which reported the numbers of submitted zakat statements by business owners who complied with zakat rules in the last two years in comparison with the total registered businesses subject to zakat laws (see figure 1). Furthermore, previous studies estimating zakat potential could indicate to the significant zakat gap in Saudi Arabia between the formally collected zakat proceeds through the GAZT and the estimated zakat potential (see Farhan, 2008; Shaikh, 2016, Kahf 1989).

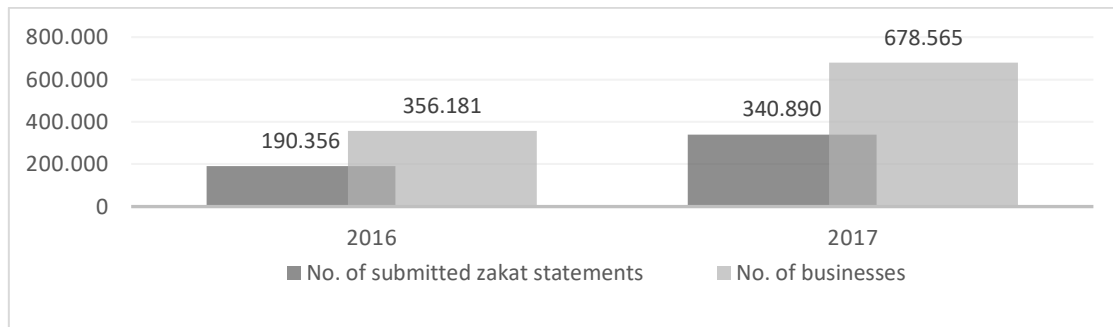


Figure 1. Level of Zakat Non-Compliance Issues in the Last Two Years

Source: statistics were retrieved from gazt.gov.sa

Despite the early establishment of the formal zakat institution in Saudi Arabia, there has been limited literature addressing the issues and challenges facing the zakat authority. However, few previous studies have suggested a significant extent of compliance issues and zakat evasion cases in the GAZT context (AlSaad, 2013; Al-Utaibi et al., 2003). Specifically, Al-Saad's study (2013) concerning zakat evasion in the GAZT context suggested that the lack of trust was found to be a significant factor leading to zakat evasion. In addition, it was mentioned that the lack of transparency of the GAZT regarding the distributions process triggered zakat payers' concerns regarding the appropriate treatment of zakat fund. The issue of trust has also been mentioned in Al-Utaibi et al. study (2003), which referred to the absence of shariah supervisory as a cause of concerns for zakat payers. Accordingly, such issues could be linked to the governance practices of the GAZT, which this study attempted to investigate. The term governance can be defined as "the arrangements put in place to ensure that the intended outcomes for stakeholders are defined and achieved" ((IFAC) & (CIPFA), 2014). The process of governance includes making and implementing decisions, setting strategies, and giving directions in

compliance with the regulations and objectives of the entity.

There are several studies that have discussed governance of zakat institutions in several contexts, such as the relationship between governance and performance (Fadilah, 2013); governance and efficiency (Abd Wahab & Abdul Rahman, 2011); and governance and zakat payers' trust (Abioye et al., 2013). However, the current study employs a qualitative approach to investigate the issues pertaining to the governance of the Saudi Zakat Authority, the GAZT, and how to improve zakat payers' compliance through good governance practices. Accordingly, the rest of the paper is structured as follows: section two provides a background to the Saudi zakat system. Section three discusses the methodology employed in collecting and analysing the data in this study. Section Four discusses the issues pertaining to the governance of the GAZT based on the interviews' analysis. Section five elaborates on how to improve zakat compliance by implementing good governance practices. It also presents the developed framework that explains the influence of governance practices of formal zakat institutions on zakat payers' compliance. Section six concludes the paper and provides suggestions for future studies.

BACKGROUND ON THE SAUDI ZAKAT SYSTEM

The Kingdom of Saudi Arabia is an Islamic country that derives its laws and legislations from the Quran and the tradition of the Prophet (PUBH) according to its Basic Law, which is regarded as the constitution. Hence, the imposition of zakat has long been articulated in its Basic Law, authorising the Saudi government to collect and distribute zakat for the entitled beneficiaries (The Saudi Basic Law, Article 21). Moreover, AlLami (2015) claims that zakat is regarded as a form of taxation since the Saudi Basic Law does not accommodate other ad-hoc taxes as the case with zakat. As a matter of fact, the Saudi Basic Law restricts the government from imposing taxes except when needed and on a fair basis (The Saudi Basic Law, 1422, Article 20). Accordingly, the Department of Zakat and Income Tax (DZIT), currently the GAZT, was established in 1951 as the official body to handle the collection of zakat. Also, the first Zakat Law was issued in the same year, setting up the regulations and role of the DZIT. According to the GAZT regulations, the main objectives of the GAZT are to calculate and collect zakat on business inventory from Saudi companies and individuals operating in the Kingdom. In addition, the GAZT is tasked with levying taxes from non-Saudi businesses, besides the recently introduced Value Added Tax (VAT). However, the distribution of zakat is carried out by another agency, the Social Security Agency (SSA), under the Ministry of Social Affairs. Specifically, the collected zakat proceeds by the GAZT are regularly transferred to a special account at the Saudi Central Bank SAMA, which, then, transferred to the Social Security Agency (SSA) of the

Ministry of Social Affairs. The SSA is the official body handling the distribution of zakat proceeds beside the funds allocated from the public treasury aiming to provide financial assistance to needy categories of the Saudi citizens

Thus, the mandatory collection of zakat through the formal zakat authority, the GAZT, applies only on business entities possessing commercial records and permitted to operate in Saudi Arabia. With regard to the other forms of wealth, there is no official channel to manage the collection of zakat, such as personal bank accounts and other non-commercial assets. However, zakat on agricultural produce and livestock is collected by ad hoc committees appointed by the Ministry of Finance in coordination with other government agencies (Jamjoom, 1990).

The recent change to the GAZT, from a sub-department under the Ministry of Finance into an independent authority that took effect in April 2017 has brought new structural changes within the GAZT governance. This administrative change was also followed by new zakat regulations which gave the GAZT legal and financial independence from the Ministry of Finance. Moreover, the new regulations have brought new governance components in the GAZT organisational structure, such as the Board of Directors and the Shariah Committee. The Board of the GAZT is chaired by the Finance Minister and comprise of representatives of relevant ministries and governmental agencies. The board includes representatives from Ministries of Finance, Commerce and Investment, Economy and Planning; the Central Bank of Saudi Arabia (SAMA); and the Capital Market Authority (CMA); and two experienced and knowledgeable persons appointed by the Ministerial Council based on the Board Chairman's recommendation. The

role of the board mainly revolves around decision making and supervision over the GAZT progress. Particularly, the board approves policies, strategic plans, internal regulations and structure, taxes treaties with international parties, annual budget, and financial reports. Also, the board may propose regulatory bills, amendments on current laws, appoint internal and external auditors, and accept gifts, donations, grants, Waqf or endowments in accordance with the relevant regulations (GAZT regulation, 2017)

The second new component in the GAZT organisational structure is establishing a Shariah committee which consists of five members who shall be experts in the fields of Islamic jurisprudence, zakat accounting, and law. The role of Shariah committee is to review proposed regulations and bill drafts, tackle issues related to the collection of zakat, conducting research on zakat and other tasks requested by the board (GAZT regulation, 2017).

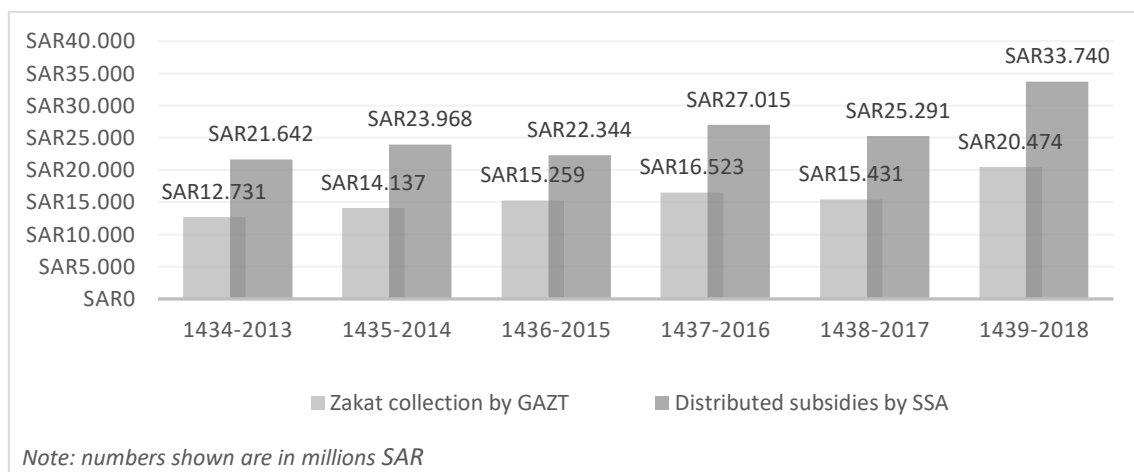


Figure 2. Comparison between Zakat Collection by GAZT and Distributed Welfare Subsidies by SSA

Sources: statistics were retrieved from GAZT.gov.sa & the annual report of SSA

Although the Saudi government has imposed mandatory zakat collection by formal zakat authority since 1951, the collected zakat by the GAZT is said to be insufficient. This low zakat proceed is partially due to the lack of zakat payers' compliance as reported by the GAZT (see figure 1). In addition, zakat revenues have been far from satisfying the needs of welfare recipients from Saudi families receiving funds from the Saudi Social Security Agency (see figure 2). Besides, the lack of relevant literature and the uniqueness of the legal system of zakat in Saudi Arabia emphasise the

need to explore issues affecting zakat payment compliance and how it is influenced by governance practices of zakat authority, which the main objective of this paper. The next section discusses the methodology used to gather the data for this study.

METHODOLOGY

This study has employed a qualitative approach to achieve its objectives. The lack of literature and the uniqueness of the legal system of zakat in Saudi Arabia

required a qualitative exploration of the issues about the governance practices of the GAZT. In addition, the analysis of the qualitative data was used to develop a framework that explains the influence of governance on zakat payers' compliance in the Saudi context.

Accordingly, the collection of data was done through in-depth interviews with experts selected based on the purposive sampling technique. This technique is widely used in qualitative research as the most efficient way to obtain information based on the participants' experience and knowledge (Creswell & Plano Clark, 2007). Moreover, expert sampling is useful when there is a lack of literature so that experts can provide practical ways to investigate new areas of research (Etikan, Musa, & Alkassim, 2016).

With regard to the sample size, the number of interviewees was

determined based on the attainment of saturation. The data saturation is achieved after ensuring that the obtained data can sufficiently explain the research phenomenon (Creswell & Plano Clark, 2007). Moreover, the selection of the interviewees was based on their availability and willingness to participate and communicate their experience and opinions. In addition, the diversity of experts' backgrounds was considered during the selection of the participants in order to obtain multiple perspectives regarding the investigated issues. Overall, the number of participants interviewed in this study was 21 experts. This sample size was believed to suffice the concept of saturation as the researcher felt there was no significant information that contributes to the discussion after the 18th interviews. Table 1 presents the participants' profile in the study.

Table 1. List of Participants' Profiles

No.	Areas of Expertise	Affiliation	Experience
Ex1	Legal consultant, former head of Al-Riyadh branch	GAZT	14 years
Ex2	Legal consultant	GAZT	13 years
Ex3	Director-General of Senior zakat and taxpayers	GAZT	17 years
Ex4	Director-General of Assessment and Inspection Department	GAZT	15 years
Ex5	Academician, the chairman of Zakat Accounting Studies, a member of the GAZT objection committees	GAZT KAU	14 years
Ex6	Economist, a member of the GAZT objection committees	GAZT IRTI-IDB	16 years
Ex7	Academician, a researcher at the Zakat Accounting Studies Chair, a member of the GAZT objection committees	GAZT KAU	18 years
Ex8	Academician, zakat and tax accounting expert and trainer	IPA	11 years
Ex9	Academician, a researcher at Zakat Accounting Studies Chair	KAU	18 years
Ex10	Accountant, Researcher in zakat accounting	UQU	8 years
Ex11	Legal and shariah consultant, a researcher in zakat studies	IUM	7 years
Ex12	Deputy dean of the Islamic Economics Institute, a former lawyer and legal consultant	KAU	12 years
Ex13	Economic consultant, Islamic Economics expert	Business owner	18 years
Ex14	Academician, Islamic Economics researcher	IMBSU	17 years
Ex15	Academician, Islamic Economics researcher	KAU	16 years

No.	Areas of Expertise	Affiliation	Experience
Ex16	Dean of The Islamic Economics Institute, Islamic Economics expert	KAU	21 years
Ex17	Islamic Economics Expert, Economic and Financial consultant	Business owner	13 years
Ex18	Academician, a researcher in zakat and waqf studies	IUM	6 years
Ex19	Islamic Economics researcher	Business owner	8 years
Ex20	Director of Zakat research Centre in Riyadh	ZCR	5 years
Ex21	Islamic Economics Expert, Lawyer and legal consultant	Business owner	16 years

The interview questions were developed based on the objectives of the study, which is to explore issues related to governance practices of the GAZT, and how to improve zakat payers' compliance through implementing good governance practices. Next, the interviews' questions were validated on their relevance, rigour, and clarity through a peer-review process. Following the questions' validation process, the researcher translated the developed questions into the Arabic language, which was reviewed by an expert in both English and Arabic languages. Accordingly, nine questions were developed which address the zakat gap in the Saudi context, the issues affecting zakat payment compliance, and how to improve zakat compliance through governance mechanisms. Subsequently, the analysis of the qualitative interviews followed the thematic analysis approach, which is a qualitative descriptive methodology for identifying patterns (themes) within data and reporting the findings (Braun & Clarke, 2006). The following sections discuss the findings of the data analysis.

ISSUES PERTAINING TO THE GOVERNANCE OF THE GAZT

The analysis of the interviews data suggested several issues pertaining to

GAZT governance that are believed to affect the level of zakat payment compliance. These issues can be grouped into four factors based on the following order:

1. The lack of control mechanisms that guarantee zakat payers' compliance.
2. The perceived image of the GAZT role in relation to zakat.
3. The lack of trust.
4. Issues affecting the perceived fairness of the GAZT.

The first factor concerns the lack of control mechanisms that guarantee zakat payers' compliance. It was suggested that this factor leads to increasing the numbers of zakat evasion cases committed by either individuals or agents of zakat accountants on behalf of their clients. For example, zakat evasion occurs in many forms, such as presenting false or altered business records and concealing business activities in order to reduce the amount of zakat due. In addition, the lack of control mechanisms is believed to allow some zakat payers not to follow up with the GAZT regarding the payment of their business. This lack of control could be attributed to the insufficient number of qualified zakat accountants working with the GAZT to examine zakat statements provided by zakat payers. Besides, the GAZT over-reliance on the discretionary assessment of zakat, particularly for

small and medium businesses, can have a negative impact on zakat payers' compliance. For example, the discretionary assessment method for calculating zakat is believed to allow some zakat payers to hide their business records in order to pay as minimum as possible of zakat to the GAZT.

Although this factor has received limited attention in the literature, there were few studies indicating its impact on zakat compliance in the Saudi context. For example, AlSaad, (2013) mentioned the lack of penalties and enforcement mechanisms as one of the causes for zakat evasion. Another recent study by Alosaimi (2018) has examined the influence of two related concepts, namely detection risk and penalty magnitude, on zakat compliance behaviours. While the relationship between the detection risk and zakat compliance intention showed an insignificant relationship, the penalty magnitude was found to have a significant and positive relationship. Hence, it was suggested that an increase in the perceived penalty magnitude could significantly increase zakat compliance intention. Alosaimi's (2018) justification to the result concerning the insignificant relationship between detection risk and zakat compliance intention was similar to the above discussion regarding the overuse of the discretionary assessment method by the GAZT staff. Such a method can reduce the effect of detection risk as zakat avoiders would be subject to it once the GAZT required them to pay zakat due.

The second factor concerns the perceived image of the GAZT in relation to zakat collection. Although there are various issues that could shape zakat payers' perception toward the GAZT, the concern is mostly triggered by its dual role in collecting both tax and zakat. Specifically, the GAZT is tasked with

collecting taxes from foreign commercial entities and the recently introduced Value Added Tax VAT, besides collecting zakat from Saudi business owners and companies. This dual role can have adverse effects on the perceived image of the GAZT by regarding it as a tax authority more than a zakat institution. Moreover, the limited role of the GAZT on the collection of zakat might reinforce such negative perceptions, which also does not reflect the traditional role of zakat institutions. Furthermore, it was mentioned that there were other factors that could contribute to reinforcing an unfavourable image, such as the lack of spirituality in the GAZT operations and collection process and the absence of shariah supervisory committees in its administrative structure. Hence, such negative perception is believed to adversely affect zakat payers' compliance with zakat rules and procedures imposed by the GAZT.

The third factor relates to the lack of trust, which could be attributed to several issues that trigger issues of trust, including the lack of transparency and disclosure about the management of zakat fund. In addition, several interviewees voiced similar concerns over the distribution process, which is done based on meeting certain criteria for registering eligible recipients by the SCA. These criteria may not apply to the conditions of eligibility for receiving zakat money according to shariah principles. However, the GAZT has no control over the distribution process due to the separation between the collection and distribution functions. Besides, the SSA source of funding is not limited to the collected zakat proceed as it is combined with additional fund allocated from the public revenue of the Saudi government.

Previous studies have mentioned the issue of trust in the GAZT context as one of the causes of zakat evasions (Al-Malafikh, 2014; AlSaad, 2013). Thus, this finding from the qualitative data analysis is in line with the previous studies' findings regarding the existence of the trust issue in the GAZT context. Moreover, the influence of trust on compliance behaviours has been documented in various areas of the literature, including tax compliance (Murphy, 2004), and policing and law-abiding behaviours (Braithwaite & Makkai, 1994). However, although few studies have examined the influence of trust on zakat compliance behaviours, no significant relationship has yet been found (Ahmad, Nor, & Daud, 2011).

The last factor discussed in the interviews concerns the perceived fairness of zakat assessment and collection procedures imposed by the GAZT. There are several issues that could cause disputes over the methods of assessing zakat due by the GAZT. Such issues can be attributed to the differences of juristic views regarding the calculation of zakat from certain assets, such as loans and assets under lease-purchase contracts. Moreover, the lack of flexibility in demanding the full payment of zakat due by the GAZT might discourage some zakat payers' from disclosing all assets subject to zakat assessment. For example, many zakat payers wishing to distribute their zakat directly on needy relatives or neighbours might resort to seeking ways that minimise their due zakat. Hence, the lack of flexibility could be related to the perceived fairness of the GAZT because the wishes and interests of zakat payers should be respected and protected, besides protecting the interest of zakat beneficiaries.

There has been limited literature that discusses issues related to

procedural fairness in the GAZT context. For example, AlSaad (2013) mentioned that the lack of clarity regarding the criteria used for zakat assessment by the GAZT contributes to zakat non-compliance issues. Similarly, Asiri & Yamani (2017) mentioned that the different assessment methodologies and calculation of zakat from certain assets were cited among the leading causes of disputes between zakat payers and the GAZT. Such issues can be linked to the perceived fairness of the process and procedures followed by the GAZT, which should be based on established rules that take zakat stakeholders' interest into accounts.

IMPROVING ZAKAT COMPLIANCE THROUGH GOOD GOVERNANCE (DEVELOPING A FRAMEWORK)

This section discusses the remaining questions that were asked in the interviews regarding how to improve zakat compliance through good governance. The themes discussed in the remaining questions were based on the review of the literature with probing questions that provide room for further discussions of factors and aspects that were not included in the main themes. At the end of the analysis, four themes were identified, namely: 1- the administration of zakat institution; 2- the performance of zakat institution; 3- the transparency and disclosure practice of zakat institutions; 4- the fairness of zakat regulations and procedures. Accordingly, a positive perception of the above-mentioned dimensions would likely boost zakat payers' confidence towards Zakat Authority and encourage greater compliance with zakat regulations. The following sub-sections provide further discussions of those four dimensions. Also, a summary of the

discussed themes and their related aspects are presented in figure (3) at the end of this section.

1. The Administration of Zakat Authority

The administration department is the backbone of any organisation which facilitates sound running of its operations. The role of the administration is seen as the most influential factor that shapes the organisational culture and dynamics. It also has a fundamental role in ensuring the alignment of the direction and the commitment to the values and vision that the organisation tries to accomplish (Drath et al., 2008). In this context, the administration of zakat institution refers to the board and the top-level management in charge of formulating policies, setting objectives, allocating resources and supervising the organisation's activities. Accordingly, zakat administration is responsible for building and maintaining a positive image which reflects their accountability to zakat stakeholders. Also, it has a significant role in enacting the organisational vision and ensuring the implementation of strategies to achieve zakat objectives. Therefore, this dimension has a crucial influence on zakat payment compliance by creating positive perception towards the credibility and competence of the zakat authority in managing zakat affairs.

The analysis of the interviews with zakat experts emphasised several aspects that are crucial to creating a positive perception towards the zakat administration. Those aspects include:

- a. Setting up a clear mission and objectives of the Zakat Authority: it is crucial that the organisational mission and objectives of Zakat Authority are well-known and respected by the public and zakat

payers. The organisational mission and objective should also be in-line with the Shariah objectives of zakat, established in the Islamic jurisprudence and the early institution of zakat.

- b. Appointing reputable and competent board members and top managers: the integrity and competence of the leaders of the zakat Authority are crucial to protect zakat fund from being abused or mismanaged. The board should consist of members with diverse skills and academic backgrounds, which enables them to recognise issues that the zakat authority encounters. It is also suggested that the board should include members representing the interest of zakat stakeholders, such as zakat payers and zakat recipients besides other relevant stakeholders.
- c. Ensuring sound shariah governance over the collection and distribution process: the existence of a shariah body or department that observe and supervise the management of zakat fund would likely reinforce zakat payers' confidence towards the zakat authority and encourage greater zakat compliance.
- d. Building the organisational capacity to manage the collection and distribution of zakat efficiently and effectively: The administration of zakat should demonstrate accountability by building the capacity to manage the collection and distribution of zakat fund.

2. The Performance of Zakat Authority

The second dimension that could influence zakat payment compliance concerns the performance of zakat

authority. However, assessing the performance of zakat institutions is different from the performance of the private and for-profit sector, which relies heavily on financial indicators. Evidently, the goals for performance measurement of zakat institutions is similar to charity organisations and the public service sector. According to Dunn and Mathew (2001), the performance assessment in charities aims to evaluate: 1- meeting the expectations and standards set by funders or donors; 2- providing satisfactory services to stakeholders; 3- enhancing staff performance through learning and development; 4- demonstrating the management accountability and transparency to stakeholders (as cited in Yang, Brennan, & Wilkinson, 2014). The performance dimension in this framework covers several aspects that were mentioned by the interviewees, which include the following:

- a. Improving the efficiency of zakat collection and distribution processes: The need to improve the efficiency of the collection and distribution of zakat is a continuous challenge. Issues affecting the perceived efficiency can have a significant impact on zakat payers' confidence towards zakat authority and discourages zakat compliance behaviours.
- b. Spreading zakat awareness and promoting zakat authority role in managing zakat: Effective communication between the administration of zakat and the public and zakat payers is crucial for the success of zakat institutions. Good communication with the public should increase zakat awareness and convey the management's commitment and competence in managing zakat affairs.
- c. Effective use of technology: The advantages of adopting technology and online system for zakat collection in the GAZT context are evident. It can be observed that the use of technology has significantly facilitated the efficiency of the collection process. The current IT system of the GAZT allows zakat payers to submit their business statements and view zakat assessment, then pay it online rather than following up with the nearest branch. This easy and convenient process has brought a positive impact on zakat proceeds collected by the GAZT as it facilitates the zakat collection process. In addition, this online system serves as a guarantee mechanism for ensuring the compliance of zakat payers with zakat rules by linking other governmental services, so that zakat avoiders may not receive other services unless they pay their zakat dues.
- d. Enhancing the skills and knowledge of zakat staff: The quality of zakat staff can shape the perception of zakat payers regarding how they are being treated and served and the level of knowledge and skills of zakat assessors in performing their jobs. Therefore, it is of prime importance that the zakat administration pays primary attention to recruiting zakat staff and equip them with the skills and training needed for the job.
- e. Providing good service quality and care for zakat stakeholders: The quality of services that zakat payers receive when dealing with zakat authority can also influence zakat compliance. It is suggested that zakat authority could employ

the use of indicators that evaluate zakat payers' satisfaction with the services provided and make improvements accordingly.

3. *The Transparency and Disclosure of Zakat Authority*

The third dimension generated from the interviews' analysis relates to transparency and disclosure practices of the zakat authority. Accordingly, the transparency and disclosure of zakat institutions are likely the most crucial factor that significantly influences the trust and compliance of zakat payers. A high level of transparency and disclosure is believed to encourage the social and ethical incentives of zakat payers to pay their zakat to a particular zakat institution. Although transparency and disclosure of information are two different concepts, they are necessarily connected and reflected on the outcome of each other. Specifically, disclosure of information is the primary tool that regulators ensure the transparency of corporates' managements to stakeholders and investors who, then, could make informed decisions.

In the current context, the public and zakat payers perceive the level of transparency of zakat institutions through their disclosure practices. Thus, the discussion of this dimension highlighted several aspects related to transparency and disclosure, that are believed to be significant to gain the trust and compliance of zakat payers. Those aspects can be summarised as follows:

- a. Identifying the rights and responsibilities of zakat stakeholders within zakat laws and regulations: The clarity of zakat laws and regulations are crucial for zakat stakeholders to understand their rights and responsibilities and obey the law. For example, zakat laws must identify the rules

followed during zakat assessment, including all assets subject to zakat assessment, and exempted assets and expenses. Such clarity of zakat laws should be fair and well-established from zakat jurisprudence in order to be respected and followed by zakat payers.

- b. Following a transparent process in the collection and distribution of zakat: The transparency of zakat collection and distribution process provides assurance to zakat stakeholders regarding the proper handling of zakat fund until its delivery to the rightful beneficiaries, whose well-being and dignities are preserved through zakat. A transparent process should define the role of zakat institution as an intermediary between zakat payers and zakat beneficiaries, which is achieved by the disclosure of sufficient information.
- c. The transparency of the administration's financial resources and budget: Running the management of zakat institutions requires considerable resources which accommodates the operations' expenses and the salaries of the managers and employees. It is established that zakat workers are allowed to have their share from zakat proceed according to the Quranic verse stipulating the beneficiaries of zakat (At-Taubah, 60), which indicates that zakat management's expenses can also be covered from the collected zakat. Thus, zakat administrations should be transparent in disclosing their share from zakat and their sources of funding. The transparency should reveal the remunerations

and salaries of zakat administrators and staff, which demonstrate their accountability to the public.

- d. Providing periodic disclosure of the collected and distributed zakat: Disclosure of information is an effective way for zakat institutions to demonstrate the transparency and accountability of the management to zakat stakeholders and the public. Thus, zakat authority should provide sufficient information on the collected zakat fund, including statistics on zakat sources, whether from companies or individuals, industry types and region. Also, the details of the distributed zakat should include the impact on society and zakat recipients. Such information is crucial to show the socio-economic role of zakat to the public, which provides incentives for zakat payers to comply with zakat laws and rules.
- e. Publishing audited periodic reports on zakat authority's activities: Zakat authority should avail to the public periodic reports and publications that show their activities and provide detailed information about the management of zakat. In addition, the annual report should be verified by internal and external auditors in order to reinforce good governance practices within the zakat authority.

4. *Fairness of the Regulations and Procedures Followed by Zakat Authority*

The fairness of zakat regulations and administrative procedures is crucial for acquiring the trust of zakat payers and encouraging compliance with zakat regulations. The discussion of this

dimension with the interviewees emphasised several aspects that related to zakat assessment, collection and distribution procedures, which can be summarised as follow:

- a. Following fair Zakat assessment and collection procedures: The perceived fairness of the assessment and collection procedures can be a significant determinant for zakat payers' compliance. The variations of juristic views regarding the methodologies of zakat assessment present a challenge to zakat authority in implementing a methodology that is fair to zakat stakeholders. Finding such methodology requires engaging zakat stakeholders and shariah experts to agree on the appropriate rules followed in the assessment and collection of zakat in accordance with shariah principles.
- b. Providing fair mechanisms that ensure zakat payers' compliance: It is established in zakat literature that the public authority can mandate the payment of zakat from wealth owners. Accordingly, ensuring zakat payers' compliance requires that the zakat authority might use penalties and sanctions on those who refuse to pay zakat. However, the procedures for enforcing the collection of zakat must be fair and effective which provide incentives for compliant zakat payers in one hand, and the use of power and penalties on the other hand.
- c. Following a fair zakat distribution process: fairness should be applied when delivering zakat proceeds to the rightful recipients by protecting zakat fund from being

misappropriated or abused during the distribution of zakat.

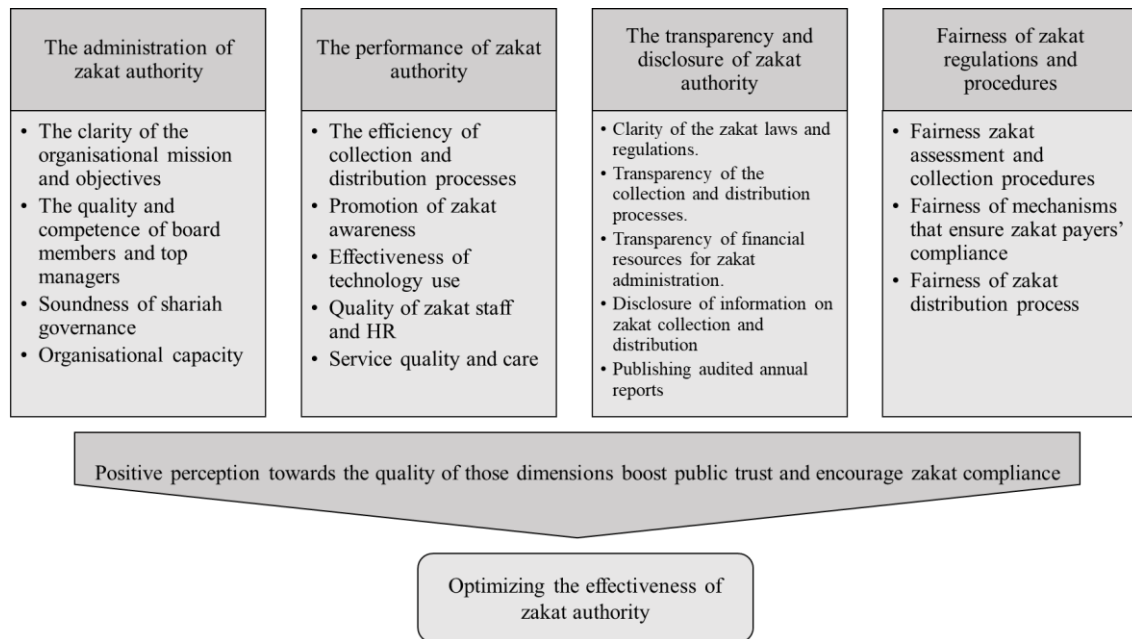


Figure 3. A summary of the Developed Framework for Improving Zakat Compliance

Source: Prepared by Author

CONCLUSION

Saudi Arabia has a long history of implementing zakat through formal bodies that manage the collection and distribution of zakat. Yet, there has been limited literature that addresses the Saudi zakat system and the issues and challenges that could limit achieving its optimum potential. Thus, this study intended to fill this gap by employing qualitative interviews of 21 experts with a high level of knowledge and experience on the issues addressed in this study. The interviews' data were analysed to identify major issues pertaining to the governance of zakat authority in Saudi Arabia. In addition, this paper has developed a framework to improve zakat compliance by implementing good governance practices.

Accordingly, the issues raised by the interviewed experts can be grouped into four factors. The first factor related to the lack of legal mechanisms that guarantee zakat payers' compliance or the limitations of zakat regulations to enforce zakat collection from non-compliant business owners. The second factor related to the perceived image of the GAZT as a zakat institution, which is largely affected by its dual role in collecting both zakat and taxes. The third factor related to the lack of trust, which could be attributed to several issues. Such issues include concerns over the followed distribution procedure and the absence of shariah supervision over the collection and distribution processes. The fourth factor concerns the perceived fairness of zakat assessment and collection procedure followed by the GAZT. This factor includes issues affecting the perceived fairness, such as

calculating zakat from certain assets that are disputed among shariah scholars, e.g. loans and leased-purchased assets. Subsequently, the second part of this paper discussed the development of a framework that explains how to improve zakat compliance through good governance practices. The developed framework includes four dimensions that were derived from the literature and the analysis of interviews' data.

In conclusion, this paper provides an in-depth investigation into governance-related issues and governance-compliance relationship in the case of the Saudi zakat authority, GAZT. Although the scope was limited to the Saudi context, the findings should provide interesting insights to policymakers and zakat administrators on how to improve zakat payment compliance through good governance practices. Future studies are encouraged to empirically examine the generalizability of the developed framework on actual zakat payers. Finally, improving zakat compliance and good governance of zakat institutions are the two essential components for optimising the effectiveness of zakat and achieving its objectives within Muslim communities.

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Zakat Management Information System: E-Service Quality and Its Impact on Zakat Collection in Indonesia

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ABSTRACT

The purpose of this study is to examine the impact and the electronic service quality of the national zakat management information system (SIMBA) on the national zakat collection. This paper uses a multiple regression analysis in its explorative attempt to illustrate the impact of SIMBA implementation on zakat collection in Indonesia. It shows that SIMBA is positive and significantly impact the national zakat collection as well as the human development index that is used as a proxy for the human resource management quality of zakat institutions. Nonetheless, the population is negative and significant to the zakat collection as endemic poverty and reluctance to pay zakat are indicated as the reasons. Moreover, this study has succeeded in adapting and conducting an e-service quality survey to zakat information system realm. All the tests prove that the instrument in this study has a high degree of reliability and validity. The results show that some of the demographic factors significantly impact the perceived performance of SIMBA. Multiple regression analysis that is conducted in this study shows that e-service quality dimension is positive and significant towards SIMBA' overall quality, perceived value, and loyalty intention. This study contributes to the zakat literature, especially in the impact of the national zakat information system, which is pivotal in enhancing zakat collection and poverty alleviation program funded by zakat.

Keyword: BAZNAS, electronic service quality, management information system, SIMBA, zakat.

INTRODUCTION

Despite its advancement, the growth of Islamic banking and finance (IBF) has derailed from its path towards becoming an instrument for financialization and failed to attain the social and the developmental goals as were expected. ElGamal (2006) argues that IBF development that replicating the conventional counterpart makes this peculiar banking model less efficient in providing the same product. Current IBF model is also not significantly different in risk feature according to Abedifar *et al.*, (2015), and the reverse engineering approach to create an Islamic product may cause sharia non-compliance risk

which will lead to reputational risk and systemic risk that may collapse the whole industry (Qattan, 2006)

Several studies such as Asutay (2007a; 2007b; 2012) argue that it is paramount to return to *zakat* and *waqf* that can deliver developmentalism that was expected from the IBF. *Zakat*, *sadaqat*, and *waqf* that have endogenously embedded in Muslim society are considered as a solution to inequality and poverty problem. These institutions can mobilize Islamic religious fund among the society and help the less fortunate through social security scheme and economic empowerment program (Chapra, 2008). The nature of this model that promotes

social justice and welfare inclusion makes it more effective than conventional finance that has excluded the poor through debt-based operation (Obaidullah & Khan, 2007).

Empirical findings by Shirazi & Amin (2009) shows that OIC countries can mobilize *zakat* fund ranging from 1.8 percent to 4.3 percent of their GDP which is very potential to combat poverty that endemic in Muslim countries. Moreover, a meticulous study indicates that about 20 OIC countries can solve extreme poverty by solely mobilizing and utilizing *zakat* funds from internal sources (Mohieldin *et. al.*, 2012). Nonetheless, the current situation indicates that there are a lot of things to do to achieve the full potential of *zakat* in Muslim countries. In Indonesia, the largest Muslim country, although the *zakat* collection increases over the years, it is still stuck at 1.68 percent of its total potential (BAZNAS, 2017)

Having a limited amount of mobilized *zakat*, current literature on *zakat* can be categorized into three groups. The first one is the literature that aims to optimize the utilization of *zakat* by looking for a *zakat* disbursement model that can significantly reduce poverty in Muslim countries. The second group is literature that trying to increase the actual collection by looking for determinants that significantly induce Muslim to pay *zakat*. The last group, which is more scarce than the other two, is literature that scrutiny the *zakat* management, operation, and performance.

Interestingly, the study in this field, especially on the *zakat* management information system is pivotal to effectively eradicate poverty and boost collection. For instance, a study by Othman & Noor (2012) in Malaysia finds that inaccurate database of *asnaf*, under-identification of *asnaf*,

bureaucracy, and geographical challenge are some hindrances on the effective use of *zakat* for poverty alleviation. On the other side, a study by White (1952) shows that management information system can increase public trust to non-profit organization i.e. *zakat* institutions and safeguard the ethics within the organization by providing transparency, disclosure, oversight, and conflict of interest avoidance. In addition, Ahmed (2004) argues that the pivotal aspect of enlarging the contribution of the *zakat* and *waqf* institutions on poverty alleviation is knowledge development and information assimilation. Therefore, this particular study is aimed to scrutiny the impact of the national *zakat* information management system (SIMBA) on the Indonesian *zakat* management system and operation

AIMS, OBJECTIVES AND RESEARCH QUESTIONS

This paper aims to evaluate the performance of SIMBA by examining its impact on *zakat* collection. In addition, this study aims at examining the electronic service quality dimensions of SIMBA as perceived by the operators to capture the gap between the expected and the real service quality of this system.

In fulfilling the aims, the following objectives are developed:

1. Developing an advanced understanding of the *zakat* management systems;
2. Assembling secondary data on *zakat* transactions through BAZNAS and conducting a survey with SIMBA operators on their perceptions towards the system;
3. Examining the correlation between the implementation of SIMBA and the *zakat* collection in respective local BAZNAS offices;

4. Evaluating the performance of the national *zakat* information system using e-service quality.

In line with identified aims and objectives, the following research questions are developed:

1. Has BAZNAS and SIMBA improved the collection of *zakat* as indicated in the total *zakat* collection?
2. Has the SIMBA system fulfilled the expectations of the operators?

LITERATURE REVIEW

Zakat Management System: A Worldwide Survey

There is a large number of academic and professional research on *zakat* that can be classified into three major categories. The following part provides a survey of such topical areas and points out the gap in the literature that significantly be fulfilled by this research.

First, the literature on *zakat* as a socioeconomic intervention. Most of the studies in this group elaborate how *zakat* can reduce poverty and inequalities with evidence from a lot of Muslim countries (see, among others: Abdelbaki, 2013; Kasri, 2014; Ali & Hatta, 2014; Kareem & Bankole, 2016). In addition, Huq (1993) elaborates how *zakat* not merely addressing poverty but also sustain economic growth, while Kahf & Yafai (2015) suggest that *zakat* that can give significant relief to governmental budget in providing social assistance and security. Similarly, risk-sharing contracts and *zakat* as part of the redistributive instrument in Islam can induce financial inclusion (Iqbal & Mirakhor, 2012).

Secondly, studies that elaborate *zakat* estimation in Muslim countries and its determinant factor. Shirazi & Amin

(2009) show that OIC countries can mobilize *zakat* fund ranging from 1.8% to 4.3% of their GDP in annual basis. In Pakistan, the total *zakat* collection is estimated up to 7% of its GDP Shaikh (2014) whereby in Indonesia it is about 3.4% of its GDP in 2010 Firdaus, *et. al.* (2012). Moreover, Sapingi, *et. al.* (2011) conclude that educational background positive and significantly correlated with the intention to pay *zakat*. On the contrary, lack of institutional support results in *zakat* ignorance (Ummulkhayr, *et. al.*, 2017). Other than that, studies on the *zakat* collection discuss *fiqh* related matters. Kahf (1989) extends Qaradawi's work on *fiqh zakat* by creating three *zakat* estimation approaches namely the traditional *fiqh* position, Qaradawi's view, and modified Qardawi's view by adding *zakat* on a fixed asset at the premium of 2.5% of their stock.

Differ from the two discussed topic above, the third group, studies on the *zakat* management system and its performance are quite limited if not scarce. One can expect the reason is that this particular type of study needs a stronger involvement and attachment to operational activities of *zakat* in the sense of assembling primary data. Nonetheless, there are some studies that scrutiny the performance of *zakat* institutions such as Noor (2012) and Embong, *et. al.* (2014) who use balance scorecard for assessing the performance of the *zakat* institutions in Malaysia. Moreover, Wahab & Rahman (2012) measure the productivity growth of *zakat* institutions in Malaysia using data envelopment analysis. Using the same methodology, Hamzah & Krishnan (2016) finds that excessive usage of staff has caused inefficiency in the *zakat* institutions in Malaysia. Similarly, Rusydiana & Al-Farisi (2016) tells that high operational cost is the source of

inefficiency in zakat institutions in Indonesia. Wahab & Rahman (2013) emphasizes the importance of information and communication technology as well as the computerized zakat system to improve zakat institutions' efficiency.

Other than that, research on the *zakat* management information system is an area that needs much further development. This aligns with several findings in some studies in which *zakat* institutions do not successfully address the poverty and equality problem (Mahamod, 2011; Embong & Nor, 2013). Inaccurate database of *asnaf*, under-identification of *asnaf*, bureaucracy, and geographical challenge are some hindrances on the effective use of *zakat* for poverty alleviation (Othman & Noor, 2012) that can be resolved by optimizing the *zakat* management information system.

This emphasizes the importance of management information system which is able to tackle the entire process of *zakah* giving, such as an information system benefiting from the latest technology that can robustly conduct such identification and ease the *zakat* management in modern time. This identification is important both for *muzaki* and *mustahiq*. For *muzaki*, the identification may be relevant for deducting or reducing the amount of tax payment. On the distribution side, such identification is important to avoid redundant disbursement so that it can attain equitable and fair *zakat* distribution. Such identification is also important to monitor the progress of *zakat* recipient and the effectiveness of the *zakat* program.

Several studies also have revealed the importance of management information system (MIS) in the non-profit organization (NGO) such as *zakat* institution. Dash & Mishra (2014) argue

that MIS can ease NGO in data documentation and analysis, performance monitoring and strategic decision making. Moreover, MIS will help NGO to increase credibility and accountability by presenting their activities to the public. It might also help in safeguarding the four pillars of ethics in NGO, namely disclosure, transparency, avoidance of conflict of interest, and oversight as elaborated by (White, 1952)

Moreover, management information system can ease the *zakat* administrator to run the operation efficiently as it can lower the cost of dissemination of information (O'Connor & Martinsons, 2006). In this regard, management information system can reduce unnecessary cost by enlarging the usage of internet and online transaction system. This is absolutely relevant to the fact that the amount of *zakat* that can be utilized to organize *zakat* is limited to one eighth in accordance with Hanafi's ruling. Therefore, integrating management information system to the *zakat* operation is essential to enhance the *zakat* management system.

The Emergence and Development of SIMBA

The current *zakat* act has several direct implications to the national *zakat* management system.

- i. First, it provides the legal and political assurance from the state for every Moslem to perform *zakat* under positive law. It also emphasizes the role of *zakat* in national socio-economic development, especially in bringing public welfare and social justice (Constitutional Court of The Republic Indonesia, 2012).
- ii. Secondly, it acknowledges equally the role of the state and civil society in administering *zakat*. It

does not impose *zakat* to the Moslem or perceive it as state income, but put government budget to enhance the benefits of *zakat* to the society. On the other hand, it recognises the role of civil society both in administering and supervising *zakat* activities. Nasar (2014) argues that *zakat* management in Indonesia is not considered as totalitarianism where the state is the only legitimate body to manage *zakat* and not also considered as secular where the practice of *zakat* left behind to the society without any support from the government; Lastly,

- iii. It induces to the unified and integrated *zakat* management system whereby *zakat* institutions conduct their activities under a standard regulation and integrate their report into an agreed platform to create a national report and

database. *Mustahik* database integration is one of the benefits of a unified and integrated *zakat* management system that can avoid redundant distribution, prevent inequality disbursement between regions, and become a baseline of performance measurement or policymaking (Beik, 2014). This aligns with Ahmed (2004) states that the performance of *zakat* institution to combat poverty hinges on the information exchange in which the *zakat* institution can gain trust from the customer and increase its credibility.

Kustiawan (2014) and Hafidhuddin *et. al.* (2015) articulates the *zakat* act No.23/2011 into a house building block as illustrated in Figure 1. which is also adapted in the years strategic planning of national *zakat* management (BAZNAS, 2016a).

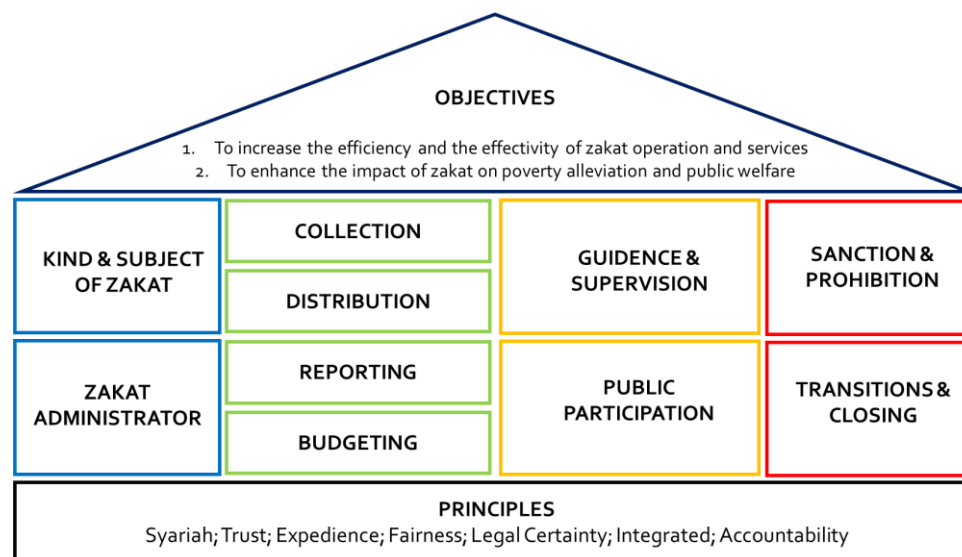


Figure 1. Zakat Management System Building Blocks

Source: BAZNAS (2016a:26)

The emergence of SIMBA should be considered as a logical consequence of *Zakat* Act No. 23/2011.

This act assigns BAZNAS as the leader of national *zakat* management. Having this role, BAZNAS is charged with

several tasks as identified below that will be impossible to conduct without a robust national *zakat* information system¹:

- (i) To implement the principles of *zakat* act, i.e. sharia-compliant, trust, expedience, justice, legal certainty, integrated, and accountable to the national *zakat* management system;
- (ii) To increase the service effectiveness and efficiency of national *zakat* management;
- (iii) To eradicate poverty by optimizing the *zakat* fund utilization and consider some principles such as equity and fairness in each region;
- (iv) To provide a *zakat* transaction receipt for payers that can be used as a tax deduction; lastly
- (v) To conduct national *zakat* hierarchical reporting system.

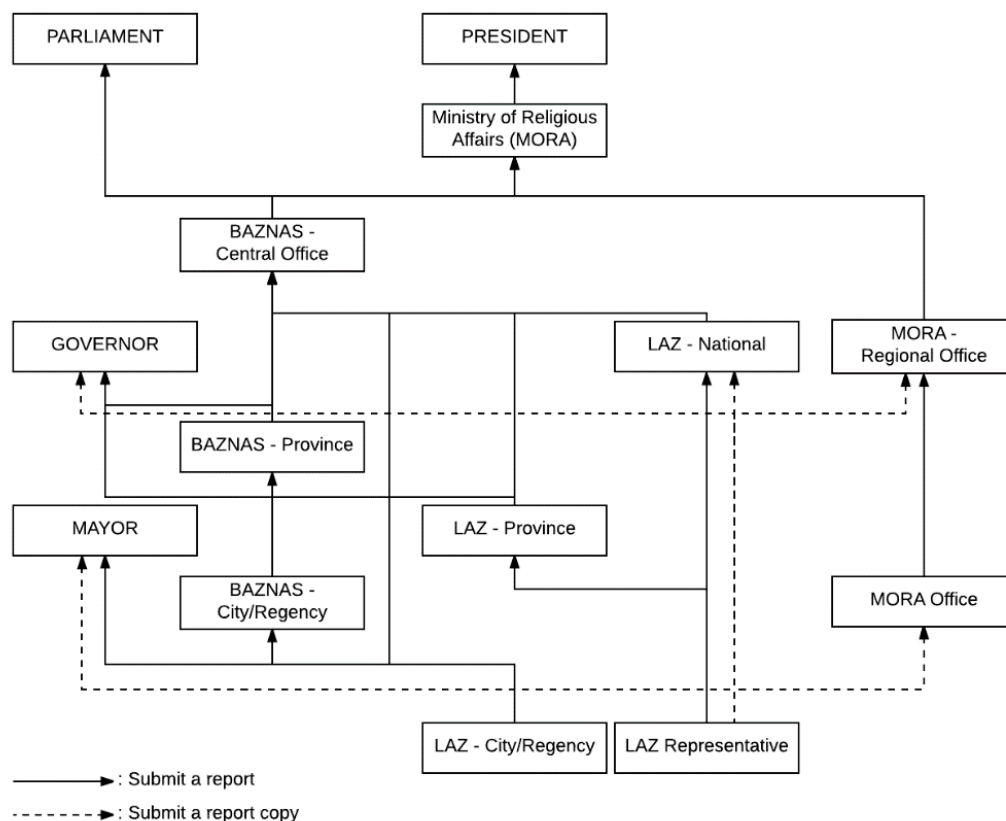


Figure 2. National Zakat Reporting Structure

Source: BAZNAS (2016a: 33)

On October 2012, with the help of Bank Rakyat Indonesia Syariah under its CSR scheme, BAZNAS launched

SIMBA as the national *zakat* management information system (Republika, 2012). SIMBA has two main

¹ The tasks are derived from (Zakat Act, 2011). See article 1,2,3,6,7,15,19,23,26,28, and 29

functions: recording collection and disbursement of *zakat* and creating a report based on the submitted data which works under the *zakat* information management system. In addition, SIMBA also consists of supporting organizational information system that maintains several information systems such as finance, human resource, logistic, public affairs and others. It is a web-based system that connects each BAZNAS office in every region to BAZNAS headquarter in Jakarta. Therefore, this feature allows SIMBA to create a real-time online report of national *zakat* activities at each level in every region. This model is even more suitable to produce the national *zakat* hierarchical report as mandated by the *zakat* act. Figure 2 shows the structure of the national *zakat* reporting system.

Besides representing a reporting structure, above also shows some of the national *zakat* management system stakeholders; such as president, MORA, parliament, governor, and others. Nonetheless, the main stakeholders of *zakat* operation are *muzaki* and *mustahik* that directly involved in *zakat* activities. Therefore, the development of SIMBA is aimed to ultimately benefiting them. For instance, in the front end, SIMBA connects with banks, e-commerce, banks, payment gateway, and other payment points to easing both to collection and disbursement activities. In the backend, all of the data submitted to SIMBA are used to create reports that latter can be utilized for strategic planning, decision making, research, and public disclosure.

The complexity and huge amount of data within time and resource constraint make it impossible to create a national *zakat* report manually unless utilising a robust national *zakat* information system in each regional office that integrated together with the

central office in Jakarta. Having said that, BAZNAS has put information system and technology as one out of six aspects in the *Zakat* Strategic Planning and Roadmap 2016-2020. The plan expects that all *zakat* institutions including 514 regional BAZNAS and LAZ have implemented SIMBA by the end of 2017. However, the dissemination of this technology thus far has reached only 108 out of 514 office in the respective cities (BAZNAS, 2017). Although only about 21% of BAZNAS regional offices that have been implemented SIMBA, it is necessary to measure the contribution of this breakthrough model to the national *zakat* management system.

RESEARCH DESIGN

A number of research design methods are available; exploratory research, explanatory research, descriptive research, survey research and case study (Sekaran & Bougie, 2013). This research is constructed as an exploratory study which aims at exploring participants' views on the operation of *zakat* management information system. In addition, since it focuses on a particular organisation, that is BAZNAS, this study should also be considered as a case study. Furthermore, since further data analysis on the primary data through econometrics specification is conducted, this study also benefits from being an explanatory study.

RESEARCH STRATEGY

This study applies two different approaches as its strategies to answer the research questions. An inductive approach is used to measure the impact of SIMBA on the national *zakat* collection. This study observes the

existence or non-existence of SIMBA in 85 cities and attempts to offer a bottom-up abstraction of its impact on the national *zakat* collection together with some other control variables. On the other hand, the deductive approach is applied to measure the electronic service quality perceived by the SIMBA operator's opinions at nation-wide level.

ECONOMETRICS MODEL SPECIFICATION AND VARIABLES

There are six key data in this research to measure the impact of SIMBA on the

national *zakat* collection, namely total *zakat* and *infaq* collection (*collection*), total local population, gross domestic regional product (*GDRP*), GINI coefficient (*GINI*), Human Development Index (*HDI*) and the existence of SIMBA in respective city, as depicted in Table 1. All these data are in local level creating 170 observations-strongly balanced panel data (85 regions during 2014-2015). Nonetheless, due to data availability constraints in some provinces where GINI coefficient for some cities is not found, GINI coefficient of its respective provinces are used to fill the gap as a proxy.

Table 1. Variables Description

Variables	Notation	Source	Unit
Total Zakat and Infaq Collection	<i>LogCollection</i>	BAZNAS	Log of Collection in Indonesian rupiah
Total Local Population	<i>LogPop</i>	BPS	Log of Population Number
Human Development Index	<i>HDI</i>	BPS	Index (1 to 100, 100=the highest score)
Real Gross Domestic Regional Product (GDRP) percapita	<i>GDRPcap</i>	BPS	Indonesia million rupiah per capita (million IDR/cap)
GINI Coefficient	<i>GINI</i>	BPS	Index (0 to 1, 1=the highest score)
SIMBA Implementation	<i>SIMBA</i>	BAZNAS	Dummy variable:1 if SIMBA exist; 0 otherwise

Source: prepared by Author.

Accordingly, the econometric model for this research is a linear regression as illustrated below:

$$\begin{aligned}
 \text{LogCollection}_{it} = & \alpha + \\
 & \beta_1 \text{LogPop}_{it} + \beta_2 \text{HDI}_{it} + \\
 & \beta_3 \text{GDRPcap}_{it} + \beta_4 \text{GINI}_{it} + \\
 & \beta_5 \text{SIMBA}_{it} + \varepsilon_{it} \quad (1)
 \end{aligned}$$

where, α : constant; i : city; t : year; β : slope; ε : error term, the rest of the variables are defined in Table 1.

RESEARCH METHOD FOR DATA COLLECTION

Questionnaire Survey Design

The questionnaire is structured with close-ended questions consisting of four parts. Part I screens the respondents that do not have any experience in using SIMBA, while Part II measures respondents' interaction with SIMBA, including usage intensity and training participation. Part III consists of 4 main questions that measure the importance and perception of e-service quality dimensions; overall quality; perceived

value; and loyalty of customers towards SIMBA. The responses to the questions regarding e-service quality dimensions and customer loyalty are recorded using 5-point Likert scale, whereas the SIMBA overall quality and the perceived value are recorded under 10-point Likert scales ranging from poor to excellent. Part IV records the demographic information of each of the respondents. The questionnaire can be viewed in Table 2.

Differ from the initial service quality model developed by Parasuraman *et. al.* (1988) that is used to measure people-delivered service, the e-service quality is developed by Parasuraman *et. al.* (2005) to measure service that is delivered electronically via web sites. This questionnaire has been widely adapted to other virtual web-based services such as social media service of university library Kim (2015) or e-government service website Jun *et.*

al. (2009). In this study, the questionnaire is developed and adapted to *zakat* operation realm as a first draft questionnaire. Then, this draft is used as an initial document in a focus group discussion that involved one head division of BAZNAS IT & Reporting; one IT manager, and two BAZNAS system analysts, as they are involved in initial SIMBA development and understand all the features of SIMBA. The focus group discussion has contributed to the questionnaire mainly in adapting and translating the initial e-service quality statements into *zakat* operation realm. Furthermore, there were 13 people involved in a pilot test which helped to improve the semantical translation of several questions, as the questionnaire is administered in the Indonesian language. The modified e-service quality statements that are used in this study are depicted in Table 2.

Table 2. Modified E-Service Quality Statements

Dimension	Item	Modified E-Service Quality Statement for This Study
Efficiency	EFF1	SIMBA makes it easy to find which service I need
	EFF2	SIMBA makes it easy to get anywhere on the site
	EFF3	SIMBA enables me to complete a zakat transaction quickly
	EFF4	Information provided in SIMBA is well organized
	EFF5	SIMBA loads its pages fast
	EFF6	SIMBA is simple to use
	EFF7	SIMBA enables me to get on to it quickly
	EFF8	SIMBA is well structured
System Availability	SYS1	SIMBA is always available for service
	SYS2	SIMBA launches and runs right away
	SYS3	The pages of SIMBA display normally
	SYS4	There is no error occurred during using SIMBA
Fulfilment	FUL1	SIMBA offers service when necessary data and materials are submitted
	FUL2	SIMBA processes transaction within a suitable time frame
	FUL3	SIMBA provides information that I expect quickly
	FUL4	SIMBA gives reliable service
	FUL5	Service that available in SIMBA is fully accessible and functioned well
	FUL6	SIMBA is truthful about its offered services
	FUL7	SIMBA makes accurate promises about its service
Privacy	PRI1	SIMBA protects muzaki and mustahik personal identity

Dimension	Item	Modified E-Service Quality Statement for This Study
	PRI2	SIMBA does not leak the muzaki and mustahik information that I input to public
	PRI3	SIMBA protects my submitted materials' information

Source: Prepared by Author.

Then, the questionnaire was conducted using an online platform called 'surveyMonkey' starting from 9 August to 14 August 2017. It is necessary to mention that the respondents in this study are the operator of SIMBA as the end-user of the system. Hence, the population of the survey is all SIMBA operator in Indonesia. The survey closed with 193 respondents giving their answers to the self-administered questionnaires; however, only 133 questionnaires deemed to be useful for analysis due to non-completion of the rest.

Secondary Data Collection

Two primary data sources for the secondary data used in this study are from Indonesian Office for Statistics (BPS RI) and BAZNAS. The year 2014-2015 is chosen in this study because this period represents the best availability of national *zakat* collection as well as the availability of the control variables (*i.e.* population, GINI, HDI, and GDP per capita). Consequently, this research is unable to use data from all regions. Having cleaned all the data, eventually only 85 regions that have proper data. Consequently, this research in total has 170 observations-strongly balanced panel data (85 regions during 2014-2015).

Multiple Regression Analysis

This method is applied to measure the impact of more than one independent variables on the dependent variables (Sekaran & Bougie, 2013). In this

research, it is used to measure the 22 multiple items in four different dimension of e-service quality towards the dependent variables as illustrated in Figure 3.

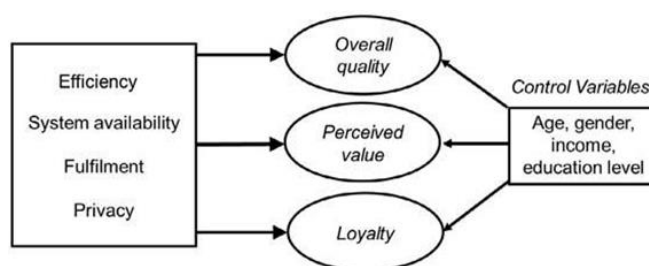


Figure 3. E-Service Quality Model

Source: Santouridis et. al. (2012)

RESULTS AND DISCUSSION

The Regression Results

The initial analysis commences in this section with the regression analysis in measuring the impact of SIMBA on the national *zakat* collection, for which the key findings are shown in Table 3. As can be seen, all variables are statistically significant in explaining the log collection per capita of *zakat* and *infaq* except the GDRP per capita and GINI coefficient. There are 170 observations captured in the regression model and resulting *R-squared* is at 0.409 which implies that the model in this research can explain about 40.9 percent of the variation observed, which is quite satisfactory. The implementation of SIMBA is significant at 1 percent level and has coefficient at 0.3068. It means that SIMBA significant in positively

increase the national *zakat* and *infaq* collection by 0.3068 in magnitude. This relevant with findings in Wahab & Rahman (2013) that argues that information technology can increase the performance of zakat institutions, in this regard is zakat collection

Table 3. Regression Results
Dependent Variable: *Zakat* Collection

Variables	Model1
LogPopulation	-0.9503*** (0.0942)
GDRPCap	0.0003 (0.0003)
GINI	1.6777 (1.057)
HDI	0.0210* (0.0106)
SIMBA	0.3068*** (0.1072)
Constant	6.7968*** (0.9220)
Observations	170
R-squared	0.409

Notes: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moreover, the log population is also significant at 1 percent but has a negative coefficient. This can be interpreted that population brings a burden instead of a favour to the total collection. A further explanation can be emanated from the fact that 70 out of 85

cities observed in this study are outside Java, where the poverty rate is high (Wibisono, 2017). Other than that, there are still a lot of people that do not want to pay zakat via zakat institutions but directly to the poor as stated by Teten Kustiawan, BAZNAS Managing Director, in Republika (2013). In addition, the HDI that used as the proxy of human resources quality in respective regional BAZNAS office is significant at 10% level. Nonetheless, the magnitude of this proxy is quite low (0.021) to the dependent variable. However, it implies that one unit increase in HDI can increase *zakat* collection by 0.021.

Table 3 shows the GRDP per capita is not significant which means statistically there is no correlation between *zakat* and *infaq* collection with GDRP per capita. Figure 4 can briefly illustrate that the trend of *zakat* collection in the last 15 years is not correlated with the growth of national GDP. This can perhaps be explained by people's willingness to pay rather than searching for the ways they can avoid or pay the minimum. Lastly, the GINI coefficient is also not significant. One may argue that the wealth disparity in the observed cities perhaps increases the collection. Further research is needed to examine this phenomenon.

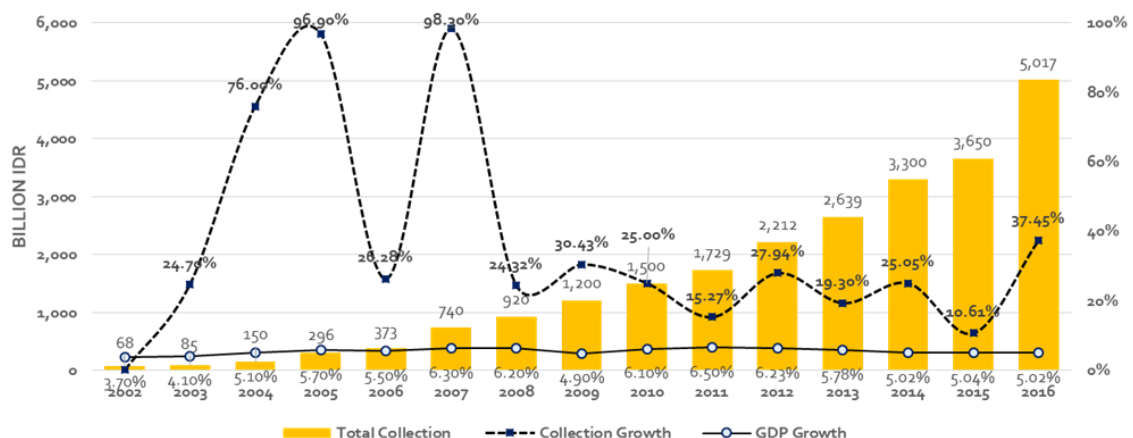


Figure 4. The National Growth of Zakat Collection

No	Measure	Label	Item	Frequency	Percent
1	Gender	1	Male	81	60.9%
		0	Female	52	39.1%
		Total		133	100.0%
2	Age	1	< 20 years	1	0.8%
		2	20-25 years	32	24.1%
		3	26-30 years	53	39.8%
		4	31-35 years	33	24.8%
		5	36-40 years	11	8.3%
		6	41-45 years	2	1.5%
		7	> 55 years	1	0.8%
		Total		133	100.0%
3	Marriage	0	Single	52	39.1%
		1	Married	81	60.9%
		Total		133	100.0%
4	Education	1	High School	24	18.0%
		2	Diploma	10	7.5%
		3	Bachelor	93	69.9%
		4	Postgraduate	6	4.5%
		Total		133	100.0%
5	Salary	1	less than IDR 1.000.000	21	15.8%
		2	IDR 1.000.000 - IDR 1.999.999	60	45.1%
		3	IDR 2.000.000 - IDR 2.999.999	30	22.6%
		4	IDR 3.000.000 - IDR 3.999.000	19	14.3%
		5	IDR 4.000.000 - IDR 4.999.000	2	1.5%
		6	more than IDR 5.000.000	1	0.8%
		Total		133	100.0%
6	Usage Intensity	1	Daily	92	69.2%
		2	Weekly	15	11.3%
		3	Monthly	22	16.5%
		4	Yearly	4	3.0%
		Total		133	100.0%
7	Training Participation	1	Never	6	4.5%
		2	1 time	43	32.3%
		3	2-4 times	71	53.4%
		4	5 or more	13	9.8%
		Total		133	100.0%
8	Location (Residence)	1	Sumatra	47	35.3%
		2	Jawa	41	30.8%
		3	Kalimantan	16	12.0%
		4	Sulawesi	19	14.3%
		5	Bali dan Nusa Tenggara	8	6.0%
		6	Maluku dan Papua	2	1.5%
		Total		133	100.0%

Table 4. Respondent Demographic Distribution

Source: prepared by Author.

Respondents Characteristics

Out of about 240 total SIMBA operator throughout the country, 193 have responded the questionnaire with only 133 responses that are valid for data analysis. Table 4 summarises the respondent demographic distribution. The respondents consist of 60.9 percent

male and 39.1 percent female. Moreover, the respondents of this study can be categorized into four generations in referring to PewResearchCenter (2010); Alexander & Sysko (2012); and (Deloitte, 2015). The first group is baby boomer who born before 1965 (age>55 years). This group is represented by 0.8 percent of in the sample. Secondly, about

9.8 percent respondents who are born in 1962-1982 (age: 36-45 years) who are usually called as generation X. The most dominant respondent's group (88.7 percent) is millennial or generation Y that is born in 1982-2002 (age: 20-35 years). The last group is Generation Z that is born after 2002 or aged less than 20 years, which is only 0.8 percent of the respondents.

In addition, similar to gender distribution, most respondent (60.9 percent) the, while the singles constitute 39.1 percent of the sample. As can be seen in Table 4, most of the respondents are highly educated with 69.9 percent have a bachelor degree and 4.5 percent have postgraduate degrees indicating a good sign for their capability in comprehending and responding to the questionnaire. Only 7.5 percent and 18 percent of the respondents have diploma level and high school education, respectively.

As for skills training, 53.4 percent of respondent attended SIMBA training for 2 to 4 times and 9.8 percent attended more than 5 training sessions. About 32.3 percent respondents trained at least once and only 4.5 percent of the

participants have never been in training throughout their career. Moreover, most of the respondents have an intensive interaction with SIMBA as 69.9 percent use SIMBA in the daily basis and 11.3 percent on weekly basis. Only 16.5 percent and 3 percent of respondent use SIMBA every month and year respectively.

It should be noted from Table 4 that most of those high education level; intensive training; and high workload respondents are paid poorly: about 15.8 percent are paid below IDR 1,000,000 and 45.1 percent earn between IDR 1,000,000 to IDR 1,999,999. For the record, 35.3 percent respondent live in Sumatra and 30.8 percent live in Java, where the average minimum wage is IDR 2,019,236, (Deny, 2016) which implies that they are underpaid reflecting the nature of the economy in the country. Bearing in mind that 60.9 percent respondent are married which makes this situation even more difficult for them as the limited salary can be a huge constraint in their life. In this sense, BAZNAS should pay attention to it in order to prevent human resources drain out.

Table 5. E-Service Quality Dimension and Dependent Variables Descriptive Statistics

Factors	Number of items	Mean		Mean of Summed Score		Std Deviation (mean)	
		Impo.	Perf.	Impo.	Perf.	Impo.	Perf.
E-S-Qual Dimensions	Efficiency	8	4.43	4.33	35.43	34.61	0.41
	System Availability	4	4.24	4.18	16.96	16.71	0.62
	Fulfillment	7	4.41	4.35	30.87	30.47	0.33
	Privacy	3	4.55	4.46	13.65	13.37	0.26
Criterion Variables	Overall Quality	1	8.45		8.45		1.51
	Perceived Value	4	8.57		34.29		0.52
	Loyalty Intentions	5	4.63		23.15		0.28

Source: prepared by Author.

Descriptive Statistics & Gap Analysis

Table 5 describes and summarises the respondent' responses towards the

questionnaire. As can be seen from the responses, 22 e-service quality item in 5 Likert scores are 4.41 for importance and 4.33 for performance. It also shows that

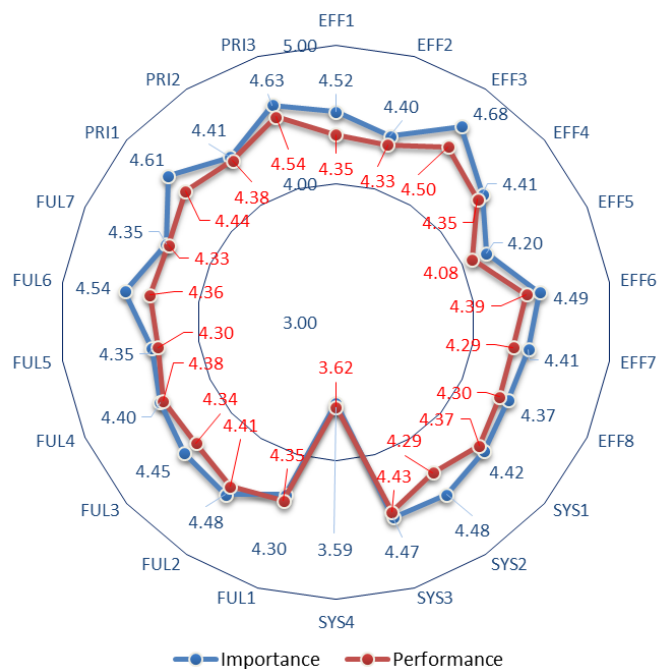
privacy is the dimension with the highest mean scores both for the importance and performance at 4.55 and 4.46 respectively. Moreover, the 22 items mean summed score is 96.92 for importance and 95.15 for performance, with a possible range of 22 to 110. The means of overall quality and perceived value are 8.45 and 8.57, with a possible range of 1 to 10 while the means of respondent's loyalty intentions is 4.63, with a possible score of 1 to 5. The mean of summed score for each criterion are 8.45; 34.29; and 23.15, respectively. The table also provides the means of standard deviation for each dimension and criterion variables.

The e-service quality questionnaire can capture the gap between respondent's expectation and the perceived performance of each e-service quality item. Gap analysis

visualization can help to analyse which item or dimension that is perceived important, performed well or bad, and how much is the gap. This study provides two visualization model which are radar chart and quadrant chart.

Figure 5 illustrates that most of the item's performance scores are lower than its importance scores. Only item SYS4 (+0.03) and FUL1 (+0.05) that exceed their importance score. SYS4 represents that there is no error during its service while FUL1 represents that SIMBA offers service after necessary data is submitted. On the contrary, the largest gap perceived by the operator is in item FUL6 (-0.18) and SYS2 (-0.19). FUL6 score illustrates that SIMBA is not quite truthful about its offered services while SYS2 score illustrates that SIMBA is perceived does not launch and run right away once it is accessed.

Figure 5. Radar Chart of 22 Items' Importance and Performance Score



Adapting Lynch *et.al.* (1996) model in applying quadrant chart for strategic planning, this study creates the four quadrants by putting the mean of

importance score as x-value and putting the gap between the importance and performance score as the y-value. Having said that, the first quadrant is an

area where the item is perceived important and scores high while quadrant two is an area with high importance but low score. Moreover, quadrant three is where item is perceived

not so important and scores low whereas quadrant four is an area with high score but low importance. Figure 6 illustrates the plot of each item in the quadrant chart.

Figure 6. E-Service Quality Quadrant Chart

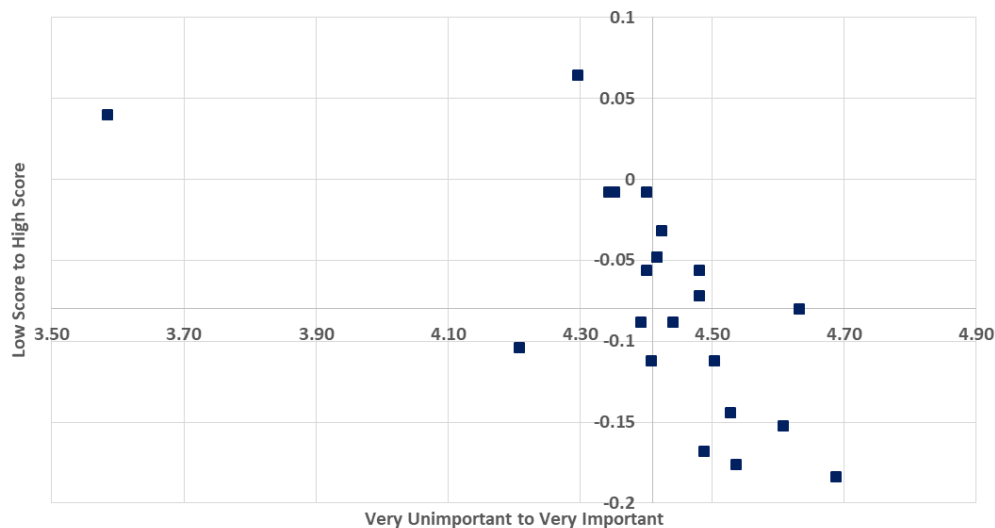


Table 6 summarizes the recommendation for each item. BAZNAS as the main stakeholder should retain items in quadrant one which is perceived important and have a high score. Those items are the information structure, service availability, website display, and SIMBA performance in safeguarding the information that is submitted to it. Moreover, there are ten items in quadrant

two that need to be improved in terms of its performance in contrast to its importance. In addition, there are six items in quadrant four that have been perceived good but less important which essentially need to be repositioned in its importance value. Lastly, in Pareto optimality, BAZNAS should not focus or ignore EFF5 and EFF8 in quadrant four as they have low score while not perceived important by the respondent.

Table 6. Items and Recommendations for Each Quadrant

Quadrant	Recommendations	Items
1	Retain	EFF ₄ ; SYS ₁ ; SYS ₃ ; PRI ₂
2	Improve Performance	EFF ₁ ; EFF ₆ ; EFF ₇ ; FUL ₂ ; FUL ₃ ; PRI ₃ ; SYS ₂ ; PRI ₁ ; FUL ₆ ; EFF ₃
3	Ignore or Improve Importance	EFF ₅ ; EFF ₈
4	Reposition	EFF ₂ ; FUL ₁ ; FUL ₄ ; FUL ₅ ; FUL ₇ ; SYS ₄

Source: prepared by Author.

Reliability

Cronbach's Alpha Statistical Test is applied to measure data reliability using SPSS 20 program. With a possible range from 0 to 1, the higher result of this test represents the higher data reliability it offers. Table 7 **Error! Reference source not found.** shows that the overall Cronbach's Alpha coefficient is 0.973 and for each dimension is ranging from 0.829 to 0.954 which is higher than 0.7,

the minimum value to accept that the data is reliable (Nunnally & Bernstein, 2013). The result of this test is also in the range of the previous study by Kim (2015) who studied e-s quality in library service and the original e-s quality questionnaire by Parasuraman *et. al.* (2005). The test shows that there is not any item that has a low correlation to the total score which implies that it has high internal consistency.

Table 7. Reliability Statistics of E-Service Quality Dimensions

E-S-Qual Dimensions	Number of items	Cronbach's Alpha
Overall Dimension	22	0.973
Efficiency	8	0.946
System Availability	4	0.829
Fulfillment	7	0.954
Privacy	3	0.887

Source: prepared by Author.

Validity

Factor analysis is conducted in this study to measure the data validity. It is a multivariate method that ensures the dimension in the instrument has accurately represented the theory or concept that is applied the study, which is e-service quality. It also indicates whether the item in a particular dimension is already fit and appropriate or should it be categorised under other dimensions (Sekaran & Bougie, 2013). In this sense, factor analysis is conducted whether the 22 items of e-service quality has correctly categorised under their specific dimensions. Each item is considered valid if the Kaiser-Meyen-Olkin (KMO) sampling adequacy exceeds 0.5 while the Bartlett's Test of Sphericity is significant (p-value < 0.05; see: Yusoff, 2010). Other studies on

service quality use a stricter threshold on KMO results such as Mohd-Shariff (2013) and Kim (2015) which use 0.6 and 0.7 respectively as the threshold on their study.

Table 8. displays the result of KMO and The Barlett's test. The overall KMO value in this study is 0.943 whereby the each dimension's KMO value ranges from 0.698 to 0.924 which exceeds 0.5 and 0.6, the minimum threshold for KMO test that used by Yusoff (2010) and Mohd-Shariff (2013). Even, it still exceeds 0.7 the threshold used by Kim (2015). Only privacy dimension that is slightly under 0.7 at 0.698 which is still tolerable. In addition, all dimension are significant on the Bartlett's Test of Sphericity with p-value less than 0.05.

Table 8. Kaiser-Meyer-Olkin and The Bartlett's Test Result

E-S-Qual Dimensions	KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
		Approx. Chi-Square	df	Sig.
Overall Dimensions	.943	3144.658	231	.000***
Efficiency	.923	908.127	28	.000***
System Availability	.774	252.937	6	.000***
Fulfillment	.924	964.451	21	.000***
Privacy	.698	245.123	3	.000***

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Mann-Whitney U Test

Mann-Whitney U Test is applied to identify whether there is a significant difference between across control variables, such as gender and marital

status groups, towards the perceived performance of the 22 items in e-service quality questionnaire and the SIMBA' overall quality, perceived value, and loyalty intention.

Table 9. Mann-Whitney U Test (Gender-1)

Item	Gender	N	Mean Rank	Sig.	Item	Gender	N	Mean Rank	Sig.	Item	Gender	N	Mean Rank	Sig.	Item	Gender	N	Mean Rank	Sig.
EFF1	Female	52	65.18	0.628	EFF7	Female	52	65.61	0.714	FUL1	Female	52	70.46	0.357	FUL6	Female	52	68.03	0.783
	Male	81	68.17			Male	81	67.9			Male	81	64.78			Male	81	66.34	
	Total	133				Total	133				Total	133				Total	133		
EFF2	Female	52	63.98	0.425	EFF8	Female	52	68.6	0.676	FUL2	Female	52	67.98	0.790	FUL7	Female	52	67.34	0.929
	Male	81	68.94			Male	81	65.98			Male	81	66.37			Male	81	66.78	
	Total	133				Total	133				Total	133				Total	133		
EFF3	Female	52	64.27	0.440	SYS1	Female	52	68.12	0.766	FUL3	Female	52	65.18	0.629	PRI1	Female	52	63.48	0.329
	Male	81	68.75			Male	81	66.28			Male	81	68.17			Male	81	69.26	
	Total	133				Total	133				Total	133				Total	133		
EFF4	Female	52	66.14	0.821	SYS2	Female	52	67.21	0.955	FUL4	Female	52	67.42	0.910	PRI2	Female	52	64.95	0.575
	Male	81	67.55			Male	81	66.86			Male	81	66.73			Male	81	68.31	
	Total	133				Total	133				Total	133				Total	133		
EFF5	Female	52	69.01	0.606	SYS3	Female	52	69.29	0.537	FUL5	Female	52	67.56	0.883	PRI3	Female	52	63.24	0.281
	Male	81	65.71			Male	81	65.53			Male	81	66.64			Male	81	69.41	
	Total	133				Total	133				Total	133				Total	133		
EFF6	Female	52	68.76	0.636	SYS4	Female	52	60.13	0.086										
	Male	81	65.87			Male	81	71.41											
	Total	133				Total	133												

Gender Group

Table 9 displays that there is no gender impact towards the perceived performance of 22 items in e-service quality as there none of the items that are significant at 10% confidence level. Hence, this data support that there is no significant difference between genders in perceiving the performance of SIMBA.

In a similar manner, findings in Table 10 support that there is no significant difference between male and female respondents in perceiving SIMBA overall quality, perceived value, and loyalty intention. Accordingly, BAZNAS should not treat gender differently in developing and enriching SIMBA in the future.

Table 10. Mann-Whitney U Test (Gender 2)

Criterion	Gender	N	Mean Rank	Sig.	Gender	SEX	N	Mean Rank	Sig.
QUA ₁	Female	52	69.35	0.558	LOY ₁	Female	52	66.56	0.890
	Male	81	65.49			Male	81	67.28	
	Total	133				Total	133		
VAL ₁	Female	52	69.06	0.608	LOY ₂	Female	52	63.84	0.369
	Male	81	65.68			Male	81	69.03	
	Total	133				Total	133		
VAL ₂	Female	52	70.31	0.409	LOY ₃	Female	52	65.85	0.736
	Male	81	64.88			Male	81	67.74	
	Total	133				Total	133		
VAL ₃	Female	52	67.39	0.922	LOY ₄	Female	52	64.28	0.359
	Male	81	66.75			Male	81	68.75	
	Total	133				Total	133		
VAL ₄	Female	52	69.78	0.483	LOY ₅	Female	52	69.13	0.428
	Male	81	65.22			Male	81	65.63	
	Total	133				Total	133		

Marital Status Group

Table 11 supports that there is no marital status impact on the perceived performance of 22 items in e-service quality. Nonetheless, Table 12 shows that there are significant differences between single and married respondents

at 5% significance level for LOY1 (71.17) and at 10% for LOY2 (70.77); and LOY4 (70.43). They show that married respondents are more loyal towards SIMBA than single respondents. They are more tend to say positive things, recommend other, and use SIMBA again in the future.

Table 11. Mann-Whitney U Test (Marital Status-1)

Item	Marriage	N	Mean Rank	Sig.	Item	Marriage	N	Mean Rank	Sig.	Item	Marriage	N	Mean Rank	Sig.	Item	Gender	N	Mean Rank	Sig.
EFF1	Single	52	66.31	0.854	EFF7	Single	52	61.73	0.167	FUL1	Single	52	63.54	0.357	FUL6	Single	52	63.22	0.312
	Married	81	67.44			Married	81	70.38			Married	81	69.22			Married	81	69.43	
	Total	133				Total	133				Total	133				Total	133		
EFF2	Single	52	65.21	0.637	EFF8	Single	52	61.92	0.183	FUL2	Single	52	62.03	0.178	FUL7	Single	52	62.82	0.268
	Married	81	68.15			Married	81	70.26			Married	81	70.19			Married	81	69.69	
	Total	133				Total	133				Total	133				Total	133		
EFF3	Single	52	66.85	0.965	SYS1	Single	52	63.59	0.362	FUL3	Single	52	64.81	0.560	PRI1	Single	52	65.38	0.654
	Married	81	67.1			Married	81	69.19			Married	81	68.41			Married	81	68.04	
	Total	133				Total	133				Total	133				Total	133		
EFF4	Single	52	65.58	0.706	SYS2	Single	52	65.66	0.724	FUL4	Single	52	66.51	0.896	PRI2	Single	52	62.91	0.264
	Married	81	67.91			Married	81	67.86			Married	81	67.31			Married	81	69.62	
	Total	133				Total	133				Total	133				Total	133		
EFF5	Single	52	69.22	0.568	SYS3	Single	52	67.63	0.864	FUL5	Single	52	66.52	0.899	PRI3	Single	52	62.68	0.216
	Married	81	65.57			Married	81	66.59			Married	81	67.31			Married	81	69.77	
	Total	133				Total	133				Total	133				Total	133		
EFF6	Single	52	68.81	0.627	SYS4	Single	52	65.71	0.747										
	Married	81	65.84			Married	81	67.83											
	Total	133				Total	133												

Table 12. Mann-Whitney U Test (Marital Status-2)

Criterion	Marriage	N	Mean Rank	Sig.	Criterion	Marriage	N	Mean Rank	Sig.
QUA1	Single	52	65.37	0.683	LOY1	Single	52	60.5	0.043**
	Married	81	68.05			Married	81	71.17	
	Total	133				Total	133		
VAL1	Single	52	65.9	0.785	LOY2	Single	52	61.13	0.096*
	Married	81	67.7			Married	81	70.77	
	Total	133				Total	133		
VAL2	Single	52	69.22	0.579	LOY3	Single	52	62.6	0.197
	Married	81	65.57			Married	81	69.83	
	Total	133				Total	133		
VAL3	Single	52	66.59	0.919	LOY4	Single	52	61.66	0.072*
	Married	81	67.27			Married	81	70.43	
	Total	133				Total	133		
VAL4	Single	52	68.14	0.773	LOY5	Single	52	66.71	0.915
	Married	81	66.27			Married	81	67.19	
	Total	133				Total	133		

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Kruskall-Wallis

As a non-parametric test, Kruskal Wallis test is applied to measure statistical difference across age group, education level, salary, usage intensity, training participation, and location

towards e-service quality perceived performance and SIMBA' overall quality, perceived value, and loyalty intention by the respondents. Since these control variables come more than two options instead of Mann-Whitney U test, Kruskal Wallis test is used

Table 13. Kruskal-Wallis (Age Group-1)

Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.					
EFF1	< 20	1	97.50	0.159	EFF5	< 20	1	57.00	0.634	SYS1	< 20	1	40.00	0.690	FUL1	< 20	1	98.50	0.271	FUL5	< 20	1	44.00	0.554	PRI2	< 20	1	94.00	0.441
	20-25	32	59.13			20-25	32	64.16			20-25	32	61.27			20-25	32	56.95			20-25	32	59.80			20-25	32	58.47	
	26-30	53	71.18			26-30	53	72.75			26-30	53	71.80			26-30	53	74.87			26-30	53	72.11			26-30	53	72.83	
	31-35	33	59.20			31-35	33	58.29			31-35	33	63.42			31-35	33	62.95			31-35	33	62.53			31-35	33	62.42	
	36-40	11	82.09			36-40	11	72.59			36-40	11	70.09			36-40	11	64.27			36-40	11	74.82			36-40	11	72.91	
	41-45	2	97.50			41-45	2	83.25			41-45	2	70.25			41-45	2	69.50			41-45	2	72.25			41-45	2	65.00	
	> 55	1	97.50			> 55	1	57.00			> 55	1	100.50			> 55	1	98.50			> 55	1	100.50			> 55	1	94.00	
	Total	133				Total	133				Total	133				Total	133				Total	133				Total	133		
EFF2	< 20	1	42.50	0.189	EFF6	< 20	1	38.00	0.457	SYS2	< 20	1	43.50	0.738	FUL2	< 20	1	37.00	0.562	FUL6	< 20	1	97.50	0.530	PRI3	< 20	1	90.00	0.143
	20-25	32	58.75			20-25	32	62.63			20-25	32	64.34			20-25	32	59.98			20-25	32	57.97			20-25	32	53.80	
	26-30	53	74.22			26-30	53	74.31			26-30	53	70.27			26-30	53	72.35			26-30	53	72.26			26-30	53	74.75	
	31-35	33	59.80			31-35	33	61.09			31-35	33	61.73			31-35	33	64.50			31-35	33	66.59			31-35	33	66.21	
	36-40	11	71.05			36-40	11	69.91			36-40	11	75.91			36-40	11	71.82			36-40	11	63.32			36-40	11	67.64	
	41-45	2	100.00			41-45	2	53.75			41-45	2	56.75			41-45	2	53.00			41-45	2	68.50			41-45	2	59.25	
	> 55	1	100.00			> 55	1	38.00			> 55	1	98.50			> 55	1	95.50			> 55	1	97.50			> 55	1	90.00	
	Total	133				Total	133				Total	133				Total	133				Total	133				Total	133		
EFF3	< 20	1	91.00	0.648	EFF7	< 20	1	44.50	0.549	SYS3	< 20	1	37.00	0.642	FUL3	< 20	1	40.50	0.463	FUL7	< 20	1	42.00	0.141		< 20	1	42.00	
	20-25	32	62.75			20-25	32	58.69			20-25	32	69.69			20-25	32	58.67			20-25	32	55.98			20-25	32	55.98	
	26-30	53	71.11			26-30	53	71.54			26-30	53	71.04			26-30	53	72.56			26-30	53	74.70			26-30	53	74.70	
	31-35	33	62.70			31-35	33	64.18			31-35	33	60.58			31-35	33	64.08			31-35	33	60.73			31-35	33	60.73	
	36-40	11	63.73			36-40	11	75.59			36-40	11	61.64			36-40	11	74.77			36-40	11	79.23			36-40	11	79.23	
	41-45	2	91.00			41-45	2	73.00			41-45	2	52.50			41-45	2	55.50			41-45	2	71.25			41-45	2	71.25	
	> 55	1	91.00			> 55	1	101.50			> 55	1	97.00			> 55	1	99.50			> 55	1	100.50			> 55	1	100.50	
	Total	133				Total	133				Total	133				Total	133				Total	133				Total	133		
EFF4	< 20	1	41.50	0.277	EFF8	< 20	1	45.00	0.261	SYS4	< 20	1	78.50	0.553	FUL4	< 20	1	40.00	0.370	PRI1	< 20	1	92.50	0.170		< 20	1	92.50	
	20-25	32	57.98			20-25	32	56.86			20-25	32	62.63			20-25	32	62.13			20-25	32	56.37			20-25	32	56.37	
	26-30	53	75.20			26-30	53	74.31			26-30	53	70.96			26-30	53	74.69			26-30	53	75.21			26-30	53	75.21	
	31-35	33	61.98			31-35	33	62.39			31-35	33	58.56			31-35	33	59.47			31-35	33	62.24			31-35	33	62.24	
	36-40	11	70.32			36-40	11	75.82			36-40	11	81.86			36-40	11	68.73			36-40	11	71.41			36-40	11	71.41	
	41-45	2	55.00			41-45	2	56.75			41-45	2	78.00			41-45	2	54.25			41-45	2	51.50			41-45	2	51.50	
	> 55	1	99.50			> 55	1	101.50			> 55	1	78.50			> 55	1	97.50			> 55	1	91.50			> 55	1	91.50	
	Total	133				Total	133				Total	133				Total	133				Total	133				Total	133		

Age Group

Table 13 indicates that there is no statistical difference across age category in perceiving SIMBA e-service quality performance. On the contrary, Table 14

shows that there is one dimension that significantly different from other age categories which is operator' intention to say positive things about SIMBA to others. This is represented by LOY1

categories. One might infer that SIMBA is perceived better by the older employee that is usually has reached management level such as manager or executive members.

Table 14. Kruskal-Wallis (Age Group-2)

Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.	Item	Age	N	Mean Rank	Asymp. Sig.
QUA ₁	< 20	1	80.00	0.541	VAL ₃	< 20	1	80.00	0.987	LOY ₂	< 20	1	31.00	0.692	LOY ₄	< 20	1	81.00	0.394
	20-25	32	63.88			20-25	32	65.95			20-25	32	64.31			20-25	32	58.48	
	26-30	53	71.02			26-30	53	69.98			26-30	53	67.71			26-30	53	72.14	
	31-35	33	63.85			31-35	33	64.11			31-35	33	69.26			31-35	33	64.76	
	36-40	11	58.64			36-40	11	66.09			36-40	11	66.91			36-40	11	68.64	
	41-45	2	112.00			41-45	2	59.25			41-45	2	90.50			41-45	2	81.00	
	> 55	1	47.00			> 55	1	50.50			> 55	1	31.00			> 55	1	81.00	
	Total	133				Total	133				Total	133				Total	133		
VAL ₁	< 20	1	47.50	0.681	VAL ₄	< 20	1	63.50	0.758	LOY ₃	< 20	1	29.00	0.511	LOY ₅	< 20	1	15.00	0.267
	20-25	32	68.42			20-25	32	64.42			20-25	32	64.09			20-25	32	67.84	
	26-30	53	68.82			26-30	53	73.13			26-30	53	70.36			26-30	53	70.49	
	31-35	33	63.21			31-35	33	63.68			31-35	33	63.82			31-35	33	63.64	
	36-40	11	61.27			36-40	11	60.82			36-40	11	71.91			36-40	11	59.55	
	41-45	2	109.50			41-45	2	53.50			41-45	2	88.00			41-45	2	78.00	
	> 55	1	47.50			> 55	1	32.50			> 55	1	29.00			> 55	1	78.00	
	Total	133				Total	133				Total	133				Total	133		
VAL ₂	< 20	1	37.50	0.377	LOY ₁	< 20	1	21.50	0.062*		< 20	1				< 20	1		
	20-25	32	71.36			20-25	32	59.28			20-25	32				20-25	32		
	26-30	53	68.20			26-30	53	69.92			26-30	53				26-30	53		
	31-35	33	58.35			31-35	33	65.67			31-35	33				31-35	33		
	36-40	11	72.14			36-40	11	84.50			36-40	11				36-40	11		
	41-45	2	109.50			41-45	2	84.50			41-45	2				41-45	2		
	> 55	1	37.50			> 55	1	21.50			> 55	1				> 55	1		
	Total	133				Total	133				Total	133				Total	133		

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Table 15. Kruskal-Wallis (Education Level-1)

[illegible]

Education Level

Table 15 supports that different education level does not significantly affect respondent in perceiving SIMBA e-service quality performance. Similarly, in Table 16, there is no significant

difference in the operator's overall quality, perceived value, and loyalty intention upon SIMBA. This might imply that SIMBA has successfully designed and developed to meet its goal across in various operator's educational background.

Table 16. Krusskall-Wallis (Education Level-2)

Item	Education	N	Mean Rank	Asymp. Sig.	Item	Education	N	Mean Rank	Asymp. Sig.	Item	Education	N	Mean Rank	Asymp. Sig.
QUA ₁	High School	24	68.17	0.884	VAL ₄	High School	24	74.1	0.699	LOY ₃	High School	24	69.75	0.928
	Diploma	10	75.3			Diploma	10	71.4			Diploma	10	61.9	
	Bachelor	93	65.7			Bachelor	93	65.01			Bachelor	93	66.75	
	Postgraduate	6	68.67			Postgraduate	6	62.17			Postgraduate	6	68.33	
	Total	133				Total	133				Total	133		
VAL ₁	High School	24	70.38	0.941	LOY ₁	High School	24	64.71	0.352	LOY ₄	High School	24	66.9	0.990
	Diploma	10	70.25			Diploma	10	57.6			Diploma	10	66.9	
	Bachelor	93	65.7			Bachelor	93	67.47			Bachelor	93	66.8	
	Postgraduate	6	68.17			Postgraduate	6	84.5			Postgraduate	6	70.75	
	Total	133				Total	133				Total	133		
VAL ₂	High School	24	71.35	0.926	LOY ₂	High School	24	66.4	0.981	LOY ₅	High School	24	66.67	0.736
	Diploma	10	68.7			Diploma	10	63.95			Diploma	10	64.1	
	Bachelor	93	65.69			Bachelor	93	67.25			Bachelor	93	68.04	
	Postgraduate	6	67			Postgraduate	6	70.67			Postgraduate	6	57	
	Total	133				Total	133				Total	133		
VAL ₃	High School	24	74.17	0.452		High School	24				High School	24		
	Diploma	10	75.95			Diploma	10				Diploma	10		
	Bachelor	93	63.57			Bachelor	93				Bachelor	93		
	Postgraduate	6	76.58			Postgraduate	6				Postgraduate	6		
	Total	133				Total	133				Total	133		

Table 17. Krusskall-Wallis (Income Level-1)

Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.
EFF ₁	<1	21	73.69	0.856	EFF ₆	<1	21	76.86	0.678	SYS ₃	<1	21	73.95	0.406	FUL ₄	<1	21	79.26	0.238	PR ₁₂	<1	21	69.4	0.762
	1.0 - 1.9	60	66.51			1.0 - 1.9	60	66.16			1.0 - 1.9	60	66.47			1.0 - 1.9	60	66.02			1.0 - 1.9	60	69.66	
	2.0 - 2.9	30	63.55			2.0 - 2.9	30	62.5			2.0 - 2.9	30	66.17			2.0 - 2.9	30	62.95			2.0 - 2.9	30	59.53	
	3.0 - 3.9	19	64.76			3.0 - 3.9	19	64.29			3.0 - 3.9	19	65.42			3.0 - 3.9	19	65.71			3.0 - 3.9	19	66.53	
	4.0 - 4.9	2	69.25			4.0 - 4.9	2	67.25			4.0 - 4.9	2	22.5			4.0 - 4.9	2	25.5			4.0 - 4.9	2	65	
	>5.0	1	97.5			>5.0	1	96.5			>5.0	1	97			>5.0	1	97.5			>5.0	1	94	
	Total	133				Total	133				Total	133				Total	133				Total	133		
EFF ₂	<1	21	71.38	0.603	EFF ₇	<1	21	79.67	0.253	SYS ₄	<1	21	79.38	0.194	FUL ₅	<1	21	74.86	0.446	PR ₁₃	<1	21	73.12	0.751
	1.0 - 1.9	60	67.83			1.0 - 1.9	60	64.42			1.0 - 1.9	60	64.79			1.0 - 1.9	60	67.24			1.0 - 1.9	60	68.64	
	2.0 - 2.9	30	60.18			2.0 - 2.9	30	66.77			2.0 - 2.9	30	62.82			2.0 - 2.9	30	63			2.0 - 2.9	30	63.07	
	3.0 - 3.9	19	71.13			3.0 - 3.9	19	63.79			3.0 - 3.9	19	68.5			3.0 - 3.9	19	66.16			3.0 - 3.9	19	60.87	
	4.0 - 4.9	2	42.5			4.0 - 4.9	2	28.25			4.0 - 4.9	2	26			4.0 - 4.9	2	28.5			4.0 - 4.9	2	59.25	
	>5.0	1	100			>5.0	1	101.5			>5.0	1	118.5			>5.0	1	100.5			>5.0	1	90	
	Total	133				Total	133				Total	133				Total	133				Total	133		
EFF ₃	<1	21	74.05	0.716	EFF ₈	<1	21	77.5	0.519	FUL ₁	<1	21	74.33	0.690	FUL ₆	<1	21	74.76	0.353		<1	21	70.24	
	1.0 - 1.9	60	63.2			1.0 - 1.9	60	65.68			1.0 - 1.9	60	65.61			1.0 - 1.9	60	70.24			1.0 - 1.9	60	68.69	
	2.0 - 2.9	30	70.8			2.0 - 2.9	30	59.9			2.0 - 2.9	30	65.7			2.0 - 2.9	30	60.72			2.0 - 2.9	30	60.35	
	3.0 - 3.9	19	64.58			3.0 - 3.9	19	68.29			3.0 - 3.9	19	66.47			3.0 - 3.9	19	59.39			3.0 - 3.9	19	63.76	
	4.0 - 4.9	2	61			4.0 - 4.9	2	73.25			4.0 - 4.9	2	40.5			4.0 - 4.9	2	39.5			4.0 - 4.9	2	63.5	
	>5.0	1	91			>5.0	1	101.5			>5.0	1	98.5			>5.0	1	97.5			>5.0	1	92.5	
	Total	133				Total	133				Total	133				Total	133				Total	133		
EFF ₄	<1	21	76.83	0.429	SYS ₁	<1	21	74.1	0.584	FUL ₂	<1	21	66.19	0.938	FUL ₇	<1	21	70.29	0.653		<1	21	73.71	0.702
	1.0 - 1.9	60	66.08			1.0 - 1.9	60	66.94			1.0 - 1.9	60	67.34			1.0 - 1.9	60	69.29			1.0 - 1.9	60	68.69	
	2.0 - 2.9	30	60.43			2.0 - 2.9	30	61.78			2.0 - 2.9	30	66.62			2.0 - 2.9	30	60.9			2.0 - 2.9	30	60.35	
	3.0 - 3.9	19	70.39			3.0 - 3.9	19	68.66			3.0 - 3.9	19	67.79			3.0 - 3.9	19	66.63			3.0 - 3.9	19	63.76	
	4.0 - 4.9	2	41.5			4.0 - 4.9	2	40			4.0 - 4.9	2	49.25			4.0 - 4.9	2	42			4.0 - 4.9	2	63.5	
	>5.0	1	99.5			>5.0	1	100.5			>5.0	1	95.5			>5.0	1	100.5			>5.0	1	92.5	
	Total	133				Total	133				Total	133				Total	133				Total	133		
EFF ₅	<1	21	86.86	0.067*	SYS ₂	<1	21	70.98	0.491	FUL ₃	<1	21	72.21	0.783	PR ₁₁	<1	21	73.71	0.702		<1	21	73.71	0.702
	1.0 - 1.9	60	62.88			1.0 - 1.9	60	63.81			1.0 - 1.9	60	65.34			1.0 - 1.9	60	68.69			1.0 - 1.9	60	68.69	
	2.0 - 2.9	30	63.32			2.0 - 2.9	30	68.68			2.0 - 2.9	30	63.7			2.0 - 2.9	30	60.35			2.0 - 2.9	30	60.35	
	3.0 - 3.9	19	64.74			3.0 - 3.9	19	71.34			3.0 - 3.9	19	71.55			3.0 - 3.9	19	63.76			3.0 - 3.9	19	63.76	
	4.0 - 4.9	2	37.75			4.0 - 4.9	2	29.25			4.0 - 4.9	2	52			4.0 - 4.9	2	63.5			4.0 - 4.9	2	63.5	
	>5.0	1	109.5			>5.0	1	98.5			>5.0	1	99.5			>5.0	1	92.5			>5.0	1	92.5	
	Total	133				Total	133				Total	133				Total	133				Total	133		

Note: ***, **, * denotes significant in 1%, 5%, 10% respectively

Income Level

Table 17 shows that item EFF5 (0.067) is significant at 10%, which tells that respondents with income more than IDR 5 million per month (mean: 86.86) acknowledge that SIMBA loads its pages fast while they are using it in comparison

to other income levels. On the other hand, Table 18 supports that there is not any significant difference in various income level in perceiving SIMBA overall quality, perceived value, and loyalty intention.

Table 18. Kruskal-Wallis (Income Level-2)

Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank	Asymp. Sig.	Item	Income (million IDR)	N	Mean Rank
QUA1	<1	21	81.52	0.461	VAL2	<1	21	76.81	0.623	VAL4	<1	21	80.5	0.413	LOY2	<1	21	69.76	0.343	LOY4	<1	21	69.88
	1.0 - 1.9	60	65.63			1.0 - 1.9	60	64			1.0 - 1.9	60	65.27			1.0 - 1.9	60	68.42			1.0 - 1.9	60	68.05
	2.0 - 2.9	30	64.7			2.0 - 2.9	30	66.97			2.0 - 2.9	30	64			2.0 - 2.9	30	62.57			2.0 - 2.9	30	62.87
	3.0 - 3.9	19	62.05			3.0 - 3.9	19	62.76			3.0 - 3.9	19	60			3.0 - 3.9	19	70.16			3.0 - 3.9	19	68.05
	4.0 - 4.9	2	47			4.0 - 4.9	2	73.5			4.0 - 4.9	2	69.25			4.0 - 4.9	2	20.25			4.0 - 4.9	2	50.25
	>5.0	1	47			>5.0	1	109.5			>5.0	1	106			>5.0	1	90.5			>5.0	1	81
	Total	133				Total	133				Total	133				Total	133				Total	133	
VAL1	<1	21	73.55	0.891	VAL3	<1	21	74.38	0.945	LOY1	<1	21	71.69	0.853	LOY3	<1	21	67.76	0.379	LOY5	<1	21	64.43
	1.0 - 1.9	60	66.87			1.0 - 1.9	60	65.93			1.0 - 1.9	60	65.46			1.0 - 1.9	60	68.72			1.0 - 1.9	60	67
	2.0 - 2.9	30	67.02			2.0 - 2.9	30	64.55			2.0 - 2.9	30	67.13			2.0 - 2.9	30	64.9			2.0 - 2.9	30	71.23
	3.0 - 3.9	19	63.24			3.0 - 3.9	19	67.13			3.0 - 3.9	19	63.71			3.0 - 3.9	19	67.95			3.0 - 3.9	19	64.74
	4.0 - 4.9	2	47.5			4.0 - 4.9	2	65.25			4.0 - 4.9	2	84.5			4.0 - 4.9	2	19.5			4.0 - 4.9	2	46.5
	>5.0	1	47.5			>5.0	1	50.5			>5.0	1	84.5			>5.0	1	88			>5.0	1	78
	Total	133				Total	133				Total	133				Total	133				Total	133	

Table 19. Kruskal-Wallis (Usage Intensity-1)

Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.
EFF1	Daily	92	65.50	0.151	EFF7	Daily	92	63.68	0.176	FUL1	Daily	92	65.64	0.701	FUL6	Daily	92	66.77	0.486
	Weekly	15	61.03			Weekly	15	63.90			Weekly	15	65.13			Weekly	15	56.43	
	Monthly	22	80.80			Monthly	22	79.30			Monthly	22	70.89			Monthly	22	73.86	
	Yearly	4	48.00			Yearly	4	87.25			Yearly	4	84			Yearly	4	74.13	
	Total	133				Total	133				Total	133				Total	133		
EFF2	Daily	92	64.36	0.283	EFF8	Daily	92	64.11	0.362	FUL2	Daily	92	66.63	0.974	FUL7	Daily	92	63.34	0.290
	Weekly	15	64.63			Weekly	15	66.97			Weekly	15	65.93			Weekly	15	72.47	
	Monthly	22	80.30			Monthly	22	75.39			Monthly	22	67.95			Monthly	22	75.16	
	Yearly	4	63.50			Yearly	4	87.38			Yearly	4	74.25			Yearly	4	85.88	
	Total	133				Total	133				Total	133				Total	133		
EFF3	Daily	92	67.17	0.781	SYS1	Daily	92	63.71	0.371	FUL3	Daily	92	64.43	0.539	PRI1	Daily	92	65.77	0.874
	Weekly	15	59.67			Weekly	15	69.70			Weekly	15	67.63			Weekly	15	66.1	
	Monthly	22	70.91			Monthly	22	77.05			Monthly	22	75.41			Monthly	22	71.86	
	Yearly	4	69.00			Yearly	4	77.38			Yearly	4	77.5			Yearly	4	72	
	Total	133				Total	133				Total	133				Total	133		
EFF4	Daily	92	63.32	0.289	SYS2	Daily	92	66.02	0.502	FUL4	Daily	92	63.2	0.264	PRI2	Daily	92	66.47	0.901
	Weekly	15	72.17			Weekly	15	58.90			Weekly	15	72			Weekly	15	67.67	
	Monthly	22	75.59			Monthly	22	75.91			Monthly	22	76.57			Monthly	22	66.48	
	Yearly	4	85.00			Yearly	4	71.00			Yearly	4	83.13			Yearly	4	79.5	
	Total	133				Total	133				Total	133				Total	133		
EFF5	Daily	92	62.48	0.047**	SYS3	Daily	92	65.73	0.310	FUL5	Daily	92	63.96	0.303	PRI3	Daily	92	66.62	0.914
	Weekly	15	64.70			Weekly	15	62.67			Weekly	15	71.43			Weekly	15	63.7	
	Monthly	22	86.27			Monthly	22	69.82			Monthly	22	78.55			Monthly	22	69.45	
	Yearly	4	73.63			Yearly	4	97.00			Yearly	4	56.75			Yearly	4	74.63	
	Total	133				Total	133				Total	133				Total	133		
EFF6	Daily	92	66.29	0.748	SYS4	Daily	92	62.46	0.082 *										
	Weekly	15	61.20			Weekly	15	66.13											
	Monthly	22	72.77			Monthly	22	82.73											
	Yearly	4	73.25			Yearly	4	88.25											
	Total	133				Total	133												

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Usage Intensity

Table 19 shows that there are two items that significant at 5% and 10% namely, EFF5 (0,047) and SYS4 (0,082) with mean 86.27 and 88.25 respectively. Respondents that use SIMBA monthly

perceived that SIMBA loads its pages fast while those who use it yearly do not find any error while utilising it for recording *zakat* transaction. In addition, item LOY5 (0,030) is significant at 5 % as shown in Table 20. It indicates that

operators that use SIMBA in a daily basis (mean: 70.21) are more likely to use SIMBA again in the upcoming

months that those who use it less frequent.

Table 20. Krusskall-Wallis (Usage Intensity-2)

Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.	Item	Usage	N	Mean Rank	Asymp. Sig.
QUA1	Daily	92	64.52	0.398	VAL2	Daily	92	66.59	0.440	VAL4	Daily	92	67.88	0.855	LOY2	Daily	92	69.26	0.424	LOY4	Daily	92	68.79	0.562
	Weekly	15	63.47			Weekly	15	56.13			Weekly	15	59.83			Weekly	15	55.50			Weekly	15	58.43	
	Monthly	22	76.45			Monthly	22	73.16			Monthly	22	69.14			Monthly	22	63.84			Monthly	22	66.43	
	Yearly	4	85.25			Yearly	4	83.38			Yearly	4	62.00			Yearly	4	75.63			Yearly	4	61.13	
Total		133			Total		133			Total		133			Total		133			Total		133		
VAL1	Daily	92	65.45	0.450	VAL3	Daily	92	68.33	0.575	LOY1	Daily	92	68.66	0.301	LOY3	Daily	92	68.45	0.279	LOY5	Daily	92	70.21	0.030**
	Weekly	15	60.23			Weekly	15	54.27			Weekly	15	57.03			Weekly	15	56.27			Weekly	15	55.47	
	Monthly	22	78.11			Monthly	22	69.68			Monthly	22	63.68			Monthly	22	64.45			Monthly	22	66.09	
	Yearly	4	67.00			Yearly	4	69.50			Yearly	4	84.50			Yearly	4	88.00			Yearly	4	41.50	
Total		133			Total		133			Total		133			Total		133			Total		133		

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Table 21. Krusskall-Wallis (Training Participation-1)

Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.			
EFF1	Never	13	71.38	0.298	EFF7	Never	13	68.31	0.390	FUL1	Never	13	67.35	0.781	FUL6	Never	13	79.65	0.562			
	1 time	6	64.50			1 time	6	52.67			1 time	6	64.75			1 time	6	62.58				
	2-4 times	43	58.90			2-4 times	43	61.67			2-4 times	43	62.78			2-4 times	43	66.91				
	> 5 times	71	71.32			> 5 times	71	71.20			> 5 times	71	69.68			> 5 times	71	65.11				
	Total	133				Total	133				Total	133				Total	133					
EFF2	Never	13	68.69	0.497	EFF8	Never	13	68.54	0.737	FUL2	Never	13	77.50	0.411	FUL7	Never	13	66.62	0.649			
	1 time	6	66.08			1 time	6	67.75			1 time	6	56.17			1 time	6	64.83				
	2-4 times	43	60.41			2-4 times	43	62.07			2-4 times	43	62.27			2-4 times	43	61.81				
	> 5 times	71	70.76			> 5 times	71	69.64			> 5 times	71	68.86			> 5 times	71	70.39				
	Total	133				Total	133				Total	133				Total	133					
EFF3	Never	13	77.15	0.024**	SYS1	Never	13	70.12	0.150	FUL3	Never	13	76.81	0.241	PRI1	Never	13	77.27	0.462			
	1 time	6	47.33			1 time	6	54.00			1 time	6	59.17			1 time	6	69.17				
	2-4 times	43	57.19			2-4 times	43	58.64			2-4 times	43	59.29			2-4 times	43	61.42				
	> 5 times	71	72.75			> 5 times	71	72.59			> 5 times	71	70.54			> 5 times	71	68.32				
	Total	133				Total	133				Total	133				Total	133					
EFF4	Never	13	72.73	0.667	SYS2	Never	13	85.81	0.047**	FUL4	Never	13	68.73	0.480	PRI2	Never	13	66.54	0.845			
	1 time	6	65.33			1 time	6	55.00			1 time	6	59.08			1 time	6	70.75				
	2-4 times	43	61.90			2-4 times	43	57.86			2-4 times	43	61.15			2-4 times	43	63.36				
	> 5 times	71	69.18			> 5 times	71	70.11			> 5 times	71	70.89			> 5 times	71	68.97				
	Total	133				Total	133				Total	133				Total	133					
EFF5	Never	13	70.19	0.152	SYS3	Never	13	78.54	0.548	FUL5	Never	13	74.00	0.383	PRI3	Never	13	80.54	0.350			
	1 time	6	59.42			1 time	6	57.33			1 time	6	60.33			1 time	6	65.92				
	2-4 times	43	57.44			2-4 times	43	64.86			2-4 times	43	60.13			2-4 times	43	62.16				
	> 5 times	71	72.85			> 5 times	71	67.00			> 5 times	71	70.44			> 5 times	71	67.54				
	Total	133				Total	133				Total	133				Total	133					
EFF6	Never	13	76.42	0.104	SYS4	Never	13	68.88	0.448													
	1 time	6	51.75			1 time	6	53.17														
	2-4 times	43	58.48			2-4 times	43	61.62														
	> 5 times	71	71.73			> 5 times	71	71.08														
	Total	133				Total	133															

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Training Participation

Table 21 shows that there are two items that are significant at 5 percent namely, EFF3 (mean: 77.15) and SYS2 (mean: 71.08). Respondents that have never been in SIMBA training state that SIMBA helps them to complete *zakat* transaction quickly and they do not find any error while using SIMBA than the other respondents who have been in the training.

In addition, Table 22 displays that item VAL1, VAL2, and VAL4 are significant at 5%. Respondents with

more than 5 times training experience feel that the information provided in SIMBA and the overall convenience in using SIMBA is excellent, which is a better result than what other group perceived it. Meanwhile, respondents that have only been once in SIMBA training perceive much better value is using SIMBA than any other group. Lastly, item LOY3 is significant at 10% and respondents that never been in training (mean: 81.38) tend to more eager to tell their friends to use SIMBA than other respondents that have been participating in SIMBA training.

Table 22. Krusskall-Wallis (Training Participation-2)

Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.	Item	Training	N	Mean Rank	Asymp. Sig.
QUA1	Never	13	61.62	0.356	VAL2	Never	13	58.31	0.047**	VAL4	Never	13	59.88	0.040**	LOY2	Never	13	79.08	0.150	LOY4	Never	13	81.00	0.126
	1 time	6	62.33			1 time	6	74.25			1 time	6	78.25			1 time	6	53.58			1 time	6	58.33	
	2-4 times	43	60.40			2-4 times	43	55.84			2-4 times	43	55.36			2-4 times	43	60.19			2-4 times	43	61.79	
	> 5 times	71	72.38			> 5 times	71	74.74			> 5 times	71	74.40			> 5 times	71	70.05			> 5 times	71	68.32	
	Total	133				Total	133				Total	133				Total	133				Total	133		
VAL1	Never	13	57.96	0.045**	VAL3	Never	13	61.38	0.189	LOY1	Never	13	74.81	0.239	LOY3	Never	13	81.38	0.053*	LOY5	Never	13	78.00	0.086
	1 time	6	73.92			1 time	6	69.67			1 time	6	60.67			1 time	6	42.33			1 time	6	78.00	
	2-4 times	43	55.83			2-4 times	43	58.02			2-4 times	43	60.27			2-4 times	43	62.33			2-4 times	43	60.65	
	> 5 times	71	74.84			> 5 times	71	73.24			> 5 times	71	70.18			> 5 times	71	69.28			> 5 times	71	67.90	
	Total	133				Total	133				Total	133				Total	133				Total	133		

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Location

Under this group, Krusskall Wallis test finds significant differences among the 22 items of e-service quality. At 1% significance level, there are five significant items (p value < 0.01) which

are SYS4 (0.006); FUL4 (0.010); FUL5 (0.010); FUL7 (0.006); and PRI3 (0.009). Interestingly, across those items, respondents who live in Bali and Nusa Tenggara are the most satisfied respondent with mean rank ranging from 90.00 to 98.50, as depicted in Table 23.

Table 23. Krusskall-Wallis (Location-1)

Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.
EFF1	Sumatra	47	63.19	0.106	EFF7	Sumatra	47	68.06	0.014**	FUL1	Sumatra	47	68.95	0.107	FUL6	Sumatra	47	66.18	0.240
	Jawa	41	69.00			Jawa	41	59.79			Jawa	41	61.38			Jawa	41	66.11	
	Kalimantan	16	53.84			Kalimantan	16	54.56			Kalimantan	16	51.84			Kalimantan	16	53.16	
	Sulawesi	19	76.05			Sulawesi	19	78.24			Sulawesi	19	78.11			Sulawesi	19	72.66	
	Bali & Nusa Tenggara	8	90.44			Bali & Nusa Tenggara	8	101.50			Bali & Nusa Tenggara	8	87.69			Bali & Nusa Tenggara	8	90.25	
	Maluku & Papua	2	41.00			Maluku & Papua	2	44.50			Maluku & Papua	2	69.50			Maluku & Papua	2	68.50	
	Total	133			Total	133				Total	133				Total	133			
EFF2	Sumatra	47	69.13	0.050**	EFF8	Sumatra	47	70.14	0.067*	FUL2	Sumatra	47	74.46	0.090*	FUL7	Sumatra	47	69.74	0.006***
	Jawa	41	60.95			Jawa	41	60.61			Jawa	41	56.37			Jawa	41	62.20	
	Kalimantan	16	53.31			Kalimantan	16	51.75			Kalimantan	16	60.81			Kalimantan	16	42.34	
	Sulawesi	19	78.03			Sulawesi	19	73.66			Sulawesi	19	70.66			Sulawesi	19	79.87	
	Bali & Nusa Tenggara	8	92.81			Bali & Nusa Tenggara	8	94.44			Bali & Nusa Tenggara	8	84.88			Bali & Nusa Tenggara	8	93.19	
	Maluku & Papua	2	42.50			Maluku & Papua	2	73.25			Maluku & Papua	2	53.00			Maluku & Papua	2	71.25	
	Total	133			Total	133				Total	133				Total	133			
EFF3	Sumatra	47	68.57	0.231	SYS1	Sumatra	47	68.85	0.168	FUL3	Sumatra	47	70.50	0.032**	PRI1	Sumatra	47	68.79	0.030**
	Jawa	41	62.37			Jawa	41	60.37			Jawa	41	60.21			Jawa	41	64.70	
	Kalimantan	16	56.50			Kalimantan	16	58.06			Kalimantan	16	49.00			Kalimantan	16	46.72	
	Sulawesi	19	76.79			Sulawesi	19	73.00			Sulawesi	19	77.26			Sulawesi	19	71.21	
	Bali & Nusa Tenggara	8	83.50			Bali & Nusa Tenggara	8	92.94			Bali & Nusa Tenggara	8	92.13			Bali & Nusa Tenggara	8	92.50	
	Maluku & Papua	2	50.00			Maluku & Papua	2	70.25			Maluku & Papua	2	70.00			Maluku & Papua	2	92.50	
	Total	133			Total	133				Total	133				Total	133			
EFF4	Sumatra	47	66.59	0.068*	SYS2	Sumatra	47	68.29	0.114	FUL4	Sumatra	47	69.33	0.010***	PRI2	Sumatra	47	65.04	0.053**
	Jawa	41	60.06			Jawa	41	62.27			Jawa	41	61.01			Jawa	41	68.23	
	Kalimantan	16	60.56			Kalimantan	16	53.59			Kalimantan	16	49.63			Kalimantan	16	46.38	
	Sulawesi	19	80.47			Sulawesi	19	80.32			Sulawesi	19	78.79			Sulawesi	19	76.97	
	Bali & Nusa Tenggara	8	92.25			Bali & Nusa Tenggara	8	84.75			Bali & Nusa Tenggara	8	97.50			Bali & Nusa Tenggara	8	83.00	
	Maluku & Papua	2	41.50			Maluku & Papua	2	43.50			Maluku & Papua	2	40.00			Maluku & Papua	2	94.00	
	Total	133			Total	133				Total	133				Total	133			
EFF5	Sumatra	47	69.45	0.020**	SYS3	Sumatra	47	72.83	0.016**	FUL5	Sumatra	47	69.44	0.010***	PRI3	Sumatra	47	70.77	0.009***
	Jawa	41	58.74			Jawa	41	53.20			Jawa	41	65.94			Jawa	41	61.43	
	Kalimantan	16	60.34			Kalimantan	16	68.69			Kalimantan	16	41.78			Kalimantan	16	45.59	
	Sulawesi	19	77.11			Sulawesi	19	74.63			Sulawesi	19	75.79			Sulawesi	19	75.63	
	Bali & Nusa Tenggara	8	96.38			Bali & Nusa Tenggara	8	89.50			Bali & Nusa Tenggara	8	93.44			Bali & Nusa Tenggara	8	90.00	
	Maluku & Papua	2	18.50			Maluku & Papua	2	37.00			Maluku & Papua	2	44.00			Maluku & Papua	2	90.00	
	Total	133			Total	133				Total	133				Total	133			
EFF6	Sumatra	47	71.80	0.033**	SYS4	Sumatra	47	63.10	0.006***										
	Jawa	41	62.11			Jawa	41	62.63											
	Kalimantan	16	48.88			Kalimantan	16	53.06											
	Sulawesi	19	68.50			Sulawesi	19	87.66											
	Bali & Nusa Tenggara	8	96.50			Bali & Nusa Tenggara	8	98.50											
	Maluku & Papua	2	67.25			Maluku & Papua	2	37.50											
	Total	133			Total	133													

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

At 5% significant level, there are eight significant items (p value < 0.05) namely EFF2 (0.05); EFF5 (0.02); EFF6 (0.033); EFF7 (0.014); SYS3 (0.016);

FUL3 (0.032); PRI1 (0.03); and PRI2 (0.053). Bali and Nusa Tenggara are the locations where most respondents satisfied with the performance of those

items indicated by the highest mean rank in each group with mean rank ranging from 89.50 to 101.50. Nonetheless, Maluku & Papua rank the highest on item PRI2 with mean rank 94.00, while both Maluku & Papua and Bali & Nusa Tenggara share the highest mean rank on item PRI1.

At 10 % significant level, there are three items that are significant (p value < 0.10) which are EFF4 (0.068);

EFF8 (0.067); and FUL2 (0.09). Again, Bali and Nusa Tenggara are regions where respondents satisfied the most on those items with mean rank 92.95; 94.44; and 84.88 respectively. It can be inferred that respondents who live in Bali and Nusa Tenggara are those who are very satisfied with SIMBA e-service quality, then followed by those who live in Maluku and Papua at the second rank.

Table 24. Kruskal-Wallis (Location-2)

Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.	Item	Location	N	Mean Rank	Asymp. Sig.
QUA1	Sumatra	47	65.89		VAL2	Sumatra	47	66.04		VAL4	Sumatra	47	66.86		LOY2	Sumatra	47	68.70		LOY4	Sumatra	47	71.01	
	Jawa	41	64.20			Jawa	41	60.05			Jawa	41	62.00			Jawa	41	54.71			Jawa	41	58.61	
	Kalimantan	16	44.44			Kalimantan	16	56.03			Kalimantan	16	61.91			Kalimantan	16	62.06			Kalimantan	16	55.39	
	Sulawesi	19	77.89	0.007*		Sulawesi	19	82.37	0.073***		Sulawesi	19	74.11	0.316		Sulawesi	19	81.11	0.010*		Sulawesi	19	77.76	0.020**
	Bali & Nusa Tenggara	8	103.88			Bali & Nusa Tenggara	8	92.81			Bali & Nusa Tenggara	8	91.50			Bali & Nusa Tenggara	8	90.50			Bali & Nusa Tenggara	8	81.00	
	Maluku & Papua	2	80.00			Maluku & Papua	2	70.50			Maluku & Papua	2	48.00			Maluku & Papua	2	90.50			Maluku & Papua	2	81.00	
	Total	133				Total	133				Total	133				Total	133				Total	133		
VAL1	Sumatra	47	59.60		VAL3	Sumatra	47	68.37		LOY1	Sumatra	47	69.03		LOY3	Sumatra	47	70.74		LOY5	Sumatra	47	72.43	
	Jawa	41	61.15			Jawa	41	62.15			Jawa	41	60.62			Jawa	41	52.71			Jawa	41	60.02	
	Kalimantan	16	44.13			Kalimantan	16	51.22	0.093***		Kalimantan	16	61.41			Kalimantan	16	65.63			Kalimantan	16	61.44	
	Sulawesi	19	77.33	0.010*		Sulawesi	19	78.92			Sulawesi	19	71.24	0.254		Sulawesi	19	78.68	0.006*		Sulawesi	19	67.53	0.145
	Bali & Nusa Tenggara	8	97.00			Bali & Nusa Tenggara	8	91.81			Bali & Nusa Tenggara	8	84.50			Bali & Nusa Tenggara	8	88.00			Bali & Nusa Tenggara	8	78.00	
	Maluku & Papua	2	92.75			Maluku & Papua	2	50.50			Maluku & Papua	2	84.50			Maluku & Papua	2	88.00			Maluku & Papua	2	78.00	
	Total	133				Total	133				Total	133				Total	133				Total	133		

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Error! Reference source not found.Table 24 displays that there are four items that are significant at 1% namely QUA1, VAL1, LOY2, and LOY3. Respondents in Bali and Nusa Tenggara argue that SIMBA overall quality (QUA1) and information provided in SIMBA (VAL1) are excellent with mean rank: 103.88 and 97.00, respectively. Likewise, respondents in Maluku & Papua and Bali & Nusa Tenggara share the highest mean rank on item LOY2 (90.5) and LOY3 (88.0).

At 5% significance level, again, Maluku & Papua and Bali & Nusa Tenggara share the highest rank with mean rank 81.00 on the item of LOY4. Moreover, at 10% significant level item VAL2 and VAL3 are also significant together with Bali and Nusa Tenggara who have the highest mean rank 92.81 and 91.91 respectively.

Multiple Regression Analysis

In this part, this study measures if there is a significant impact of the e-service quality dimensions on SIMBA' overall quality, perceived value, and loyalty intention using multiple regression technique. Accordingly, the results in this part respond to research questions H5a; H5b; and H5c. In doing so, this study defines the three regression model as follow:

$$QUA = \alpha + \beta_1 EFF + \beta_2 SYS + \beta_3 FUL + \beta_3 PRI + \varepsilon_1 \quad (0-1)$$

$$VAL = \alpha + \beta_1 EFF + \beta_2 SYS + \beta_3 FUL + \beta_3 PRI + \varepsilon_2 \quad (0-2)$$

$$LOY = \alpha + \beta_1 EFF + \beta_2 SYS + \beta_3 FUL + \beta_3 PRI + \varepsilon_3 \quad (0-3)$$

where: QUA: Overall Quality; VAL: Perceived Value; LOY: Loyalty Intention; EFF: Efficiency; SYS: System Availability; FUL:

Fulfilment; PRI: Privacy; α : constant; β : Slope; ε : error term.

Table 25. Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.676	0.456	0.440	1.13416	1.923
2	.682	0.466	0.449	1.00837	1.990
3	.629	0.396	0.377	0.44088	1.962

Having the regression model, the result is gained by applying the mean value of e-service quality dimensions as the independent variables and the mean value of three criterion as dependent variables in SPSS program. Table 25 displays the model summary of the regression. The adjusted R-square for model 1 to model 3 are 0.440; 0.449; and 0.377 which is quite satisfactory. The result of Durbin Watson test are 1.923; 1.990; and 1.962 respectively. They are in the range of 1.5 to 2.5 and close to the

ideal 2.0 which highly represents that there is no autocorrelation within the model (Karadimitriou & Marshall, 2015).

Moreover, Table 26 shows the ANOVA test results upon the three regression model. It confirms that all of the three models are significant which means that the e-service quality dimensions have a significant impact on the overall quality, perceived value and loyalty intention.

Table 26. ANOVA Test Result

Model	Items	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138.285	4	34.571	26.876	.000***
	Residual	164.648	128	1.286		
	Total	302.932	132			
2	Regression	113.447	4	28.362	27.893	.000***
	Residual	130.151	128	1.017		
	Total	243.598	132			
3	Regression	16.28	4	4.07	20.938	.000***
	Residual	24.88	128	0.194		
	Total	41.16	132			

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

Table 27 provides further analysis for these three models that have a direct impact on its respective dependent variables. It shows that in Model 1 there is only one dimension that is significant with p value 0.001 namely 'efficiency' with coefficient value 0.605.

Moreover, there are two dimensions on Model 2 that are significant namely 'efficiency' and 'fulfilment' with p value below 0.05. They have coefficient value 0.359 and 0.404 respectively. Nonetheless, there is no dimension that is significant in Model 3.

Table 27. Regression Coefficient Results

Model	Dimension	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	EFF	1.307	0.376	0.605	3.475	0.001***
	SYS	-0.421	0.306	-0.202	-1.378	0.171
	FUL	0.529	0.385	0.257	1.372	0.172
	PRI	0.007	0.172	0.003	0.038	0.970
2	EFF	0.695	0.334	0.359	2.078	0.040**
	SYS	-0.200	0.272	-0.107	-0.734	0.464
	FUL	0.746	0.343	0.404	2.177	0.031**
	PRI	0.076	0.153	0.043	0.497	0.620
3	EFF	0.204	0.146	0.256	1.396	0.165
	SYS	0.128	0.119	0.167	1.077	0.284
	FUL	0.234	0.150	0.309	1.565	0.120
	PRI	-0.092	0.067	-0.127	-1.374	0.172

Note:***, **, * denotes significant in 1%, 5%, 10% respectively

CONCLUSION

Reflections and Conclusion

This study has evaluated the impact of SIMBA on the national zakat collection and its electronic service quality perceived by the SIMBA operators at a nation-wide level. Prior to that, the earlier chapters have established an understanding of the development of zakat management system in Indonesia and the importance management information system in zakat operation.

The regression results in its explorative attempt to illustrate the impact of SIMBA implementation on the national *zakat* collection shows that SIMBA is positive and significantly impact the national *zakat* collection. Moreover, the HDI that represents the human resource quality of management in local BAZNAS office is significantly contribute to increase *zakat* collection but still have a low magnitude in which BAZNAS central office needs to pay attention to increase it. On the contrary, the population is still a burden for *zakat* collection as endemic poverty and the ignorance to pay *zakat* are identified as the reasons. It is also found that the real

Gross Domestic Regional Product (GDRP) per capita and GINI coefficient are not significantly impacting zakat collection.

Moreover, this study has succeeded in adapting and conducting e-service quality survey to *zakat* information system realm. All the tests prove that the instrument in this study has a high degree of reliability and validity.

The empirical findings show that SIMBA operators are highly educated, have significant training experience and intensive interaction with SIMBA but are underpaid. It should bring an attention to BAZNAS in order to prevent human resources drain out. In addition, BAZNAS as the main stakeholder should pay significant attention to the SIMBA operator's characteristic which dominantly millennial. They are tech savvy who are loyal to individual managers rather than to corporation and willing to deliver hard work along with virtually immediate reward. This group also consider the company' commitment to people development and society contribution which is should be retained by BAZNAS as the organization value.

The gap analysis has revealed that there are two items in SIMBA e-service quality performance that exceed the operator expectation, namely SYS4 and FUL1. SYS4 represents that there is no error during service while FUL1 represents that SIMBA offers service after necessary data is submitted. This study also has identified and elaborated which e-service quality items that should be retained, repositioned, improved and ignored for SIMBA development.

The non-parametric tests, Mann-Whitney U test and Kruskal-Wallis test, are applied in this study to scrutiny the significant difference among demographic variables

There is no significant difference between gender and among various education level in perceiving SIMBA' performance, overall quality, perceived value, and loyalty intention which indicates that SIMBA has successfully developed to meet its goal throughout different gender and education level. BAZNAS should pay attention to several operator's characteristics that tend to be more loyal towards SIMBA in compare to other characteristic groups. They are operators who are married, at the age 36-45 years old, and using SIMBA in a daily basis. Moreover, Bali & Nusa Tenggara and Maluku & Papua are the regions where respondent perceived highest score in SIMBA' performance, overall quality, perceived value, and loyalty intention as those regions mostly are remote and serve a wide area of service. Therefore, BAZNAS may take these findings as an input to make a SIMBA development strategy and human capacity enhancement program for operator SIMBA in the future.

The multiple regression analysis shows that the three models developed in this study are significant in explaining the SIMBA overall quality, perceived value, and loyalty intention. In this regard,

BAZNAS should consider the findings of this study to enhance the electronic service quality of SIMBA in order to improve the effectiveness and efficiency of zakat operation.

LIMITATIONS AND FURTHER RESEARCH

There are limitations that should be recognised in this study, as it can be a major input for further study.

- (i) Data availability constraints, as it makes only two year period in 85 cities are involved in this study;
- (ii) The primary and secondary data collected in this research is limited to BAZNAS regional office and not capturing any data from LAZ at all. In fact, LAZ represents 27.93% of total national *zakat* and *infaq* collection (BAZNAS, 2017) which is quite significant.

Further study needs to be done to capture the impact of SIMBA in a much longer period with much more observations as SIMBA implementation is getting wider each year.

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Zakat Institutions and Universities Strategic Partnership for Poverty Alleviation

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ABSTRACT

Despite the global efforts to eradicate poverty around the world, avoid exists in the literature examining the role of an effective strategic partnership between universities and Zakat institutions as a core social protection provider in the Muslim world. This paper contributes to the literature in this area by assessing the prevailing patterns of collaboration between Zakat organizations and universities. The main objective is two folds; first, by appraising their potentialities, it establishes common interests that focus on shared goals and objectives; ethics and values; and networks and processes. The second is to propose strategic partnership framework. The proposed strategic partnership framework will increase penetration and outreach by bridging the knowledge gap, better targeted social protection components and improving communication and networks. The adoption of the framework will change how these institutions approach their goals and respond to community pressures providing variety of differentiated products and services to reduce poverty.

Keywords: Zakat, Strategic Partnership Framework, Poverty Alleviation, Zakat Institutions

INTRODUCTION

Poverty is a severe challenge to almost all countries. International organizations believe knowledge and knowledge sharing are core approach to alleviate poverty; they emphasize that partnerships are indispensable to achieving the common strategic goal (The World Bank, 2014; FAO, IFAD & WFP, 2012). Partnering with the public to address societal needs are growing in number and importance and especially among organizations that think institutionally (Kanter, 2013). Recent trends on knowledge economy stresses on knowledge as enabler to eradicate poverty that shifted the global strategic goals and momentums from Millennium Development Goals (MDGs) towards Sustainable Development Goals (SDGs) promoting effective public, public-

private and civil society partnerships, besides enhancing capacity building, data and monitoring, governance, finance and policy coherence (World Development Indicators 2016, and COMCEC, 2016).

To achieve SDGs goals, the declaration stresses on strengthening the means of implementation and revitalize the global partnership for sustainable development. This places Zakat institutions and universities strategic partnership as core social institutions to inspire sustainable development in the Organization of Islamic Countries (OICs).

Zakat is the third pillar of Islam, it means literally purification and growth (Gahf, 2010; IRIT, 2014). Legally, it means the transfer of ownership of specific wealth to specific individuals

mentioned in the Holy Quran (Quran: 9:60). It implies that poor people have the right in the wealth of the rich (Hussain, 2015). Accordingly, Zakat institutions are legal entities designated to perform the religiously drawn objectives covering collection, distribution and management (Johari, 2014).

Global Poverty Map shows that 21 out of 48 Least Developed Countries are members of OICs, the organization shows 21 percent of the total population living under USD 1.90 (COMCEC, 2016). IRTI (2014) emphasized that multidimensional poverty measures within the OICs shows diverse records. However, challenges to achieving SDGs varied from political will, institutional capacity and lack of inclusive growth processes. Accordingly, metric statistics among OIC members entails the need for collaborative efforts to reduce poverty among organization's members (Ahmed, 2009; Abdebaki, 2016).

Many scholars underlined the unrealized role of Zakat institutions to effectively eradicate poverty (Hussain, 2015, IRTI, 2014). Others, including SESRIC (2015); Ahmed (2015); Ammani (2014); and Sarea (2012) questioned the international organizations criteria that linked poverty measurements to the rate of income, visualizing Zakat as an important "*Socio-Financial Index*" to reduce the gap between poor and rich within a country and between nations. In comparison between Zakat collection and distribution, Saad (2014) argues that there are several factors led to inefficiency in Zakat distribution including procedures and processes of Zakat funds distribution.

A partnership is collaborative relationships between two entities to work towards shared objectives (CCF, 2010). A strategic partnership approach

is considered by leading international organizations and developing countries as a means to eradicate poverty. It implies different meanings for universities across the globe (Banks, 2016). It varies from relationship for specific purpose, partnerships, and strategic partnerships that are results-oriented, intensive, dynamic, long term, and ethically focused.

Universities are often not viewed by communities as valued partners in problem-solving (Sarena et al, 2003). In a similar vein, UNICEF (2009) asserts that universities have not yet reached their full potential of partnerships and collaborative relationships. It stresses the importance of strategic partnerships with civil society organizations, corporate sector and knowledge institutions. The Association of Business Schools (ABS) (2014) emphasized that universities have to include more explicit links between theory and practice giving more considerable attention to interdisciplinary programs. This requires strong local organizational partnerships to match market needs with local capabilities.

The existing literature asserts that more purposeful engagement is needed to assist the diffusion of knowledge. For instance, Porter (2007) emphasizes that the potentiality of the strategic approach between universities and community organizations can have a significant impact on regional economic revitalization without new funding. That the untapped capabilities of the universities envision sustained regional prosperity while contributing to the leadership and universities' long-term prospects. Likewise, Foster (2005) highlighted the need for collective attention to converting collected information into useful systematic intelligence indicators and to addressing local community problems. Broström,

Anders, (2010) appraises collaborative R&D with universities against their motive, desired social returns and subsidies. They concluded that, despite financial support by governments to boost R&D collaboration, conceptualization of motives for and effects from such collaboration remains poor.

As developing countries move towards a knowledge economy, the link between local institutions (including Zakat) and universities is becoming the primary vehicle to achieve the nation's developmental goals. One of the stumbling blocks to integrating Zakat institutions and universities is to instil knowledge and R&D mindsets into zakat organization's culture. This requires a shift from considering internal control compliance to a more sustainable permeates the entire organization.

By reviewing the relevant literature, this paper examines whether the rationale behind universities' engagement is driven by the same forces as Zakat institutions; or whether it represents a different type of engagement that need to be treated strategically different. Accordingly, the purpose of this paper is two folds: first, is to identify common interests that reflect the rationale behind the call for collaboration between Zakat institutions and universities. This lays the foundations for strategic partnership based on the unsatisfactory patterns of existing forms of collaboration and the potentialities of Zakat institutions and universities. The second aim is to recommend a framework for a strategic partnership between Zakat and universities as a tool to eradicate poverty.

THE ESSENCE OF THE RATIONALE

To establish a foundation for partnership, it is imperative to raise the forces inducing strategic partnerships' common interests. The rationale stems from three overarching sources namely: unsatisfactory existing patterns of collaboration; potentiality of Zakat institutions and universities:

Unsatisfactory existing patterns of Zakat – universities partnerships

Existing literature showed that universities – Zakat strategic partnership is yet to materialize and formalize to eradicate poverty. Zakat institutions in the Muslim countries differ in a way they collaborate and interact with universities. These differences resulted in varied social protection outcomes. Many scholars like Ahmed (2015); Dogarawa (2009), and IRTI (2014) identified two important deficiencies in Zakat practices and processes namely; inefficiency in Zakat distribution and entitlements procedures, while Zakatable funds (collection) that rely on wealth and financial assets are not strongly allocated against contemporary economic activities. The former attracted enormous attention among researchers highlighting the negligence of empowerment of the poor revealing that most poor people do not possess entrepreneurial and technical skills needed for wealth creation. However, the latter omits current economic activities and financial resources.

Similarly, in a search for excellence, universities tend to form shy-away direct collaboration with Zakat organization to tackle social protection activities and management (Clarke & Feeny, 2007; Banks, 2016). Much research in this field has generated by faculty members on their interests, while

others depend on government funding. As a result, weak resource management by the poor prevails together with fewer programs targeted vulnerable people, and most importantly how Zakat organizations increase their penetration and outreach (Sarea, 2012).

Typical conventional strategic directions for universities include; engaged research that aims to develop a high level of knowledge, skills and culture to serve local communities. Education is directed to improve students' employability and to leverage social responsibilities consolidating civic identity (Ausi 2013).

Perkmann (2013) suggests universities must improve their understanding of causal relationships between community engagement and research performance for identifying contemporary activities; and designing appropriate policy interventions that improve human capital and social safety net in dynamic nature of a knowledge economy.

Spatial experiences produced different methods of collaboration exacerbating poverty ratios. In Asia, SESRIC, (2015) and IRTI (2014) examined the interaction between universities and Zakat organizations in Indonesia, India and Pakistan. The results showed five different types of collaboration including student support, institutional (universities) support, infrastructure, events and dakwah activities. While in African countries such as Malawi, Uganda, Zambia and Mozambique, their current patterns of Zakat support to higher institutions focus on graduate student's support (Dahiru, 2016). That includes financial support (bursaries), accommodation and rental support and stationaries. Prioritizing these activities require a closer collaboration to identify students'

entitlements, type of support, composition, duration and time.

Related activities by universities cover collaborative research, research chairs, training, consultancies, tailored courses and programs. Having the main objectives of these institutions to participate in community development, much of their objective to reap financial rewards showed insufficient formal engagement with Zakat institutions. Jacob et al. (2015) urged Higher Education Institutions (HEIs) to engage within their local community where they reside to have sustainable impact on society; likewise, communities must improve network with HEIs to maintain equal and positive partnership.

Mirroring recent practices of Zakat organizations, the state of knowledge remains relatively fragmented and tentative. For instance, Hussain (2015) highlighted the inadequateness of Zakat organizations' internal processes in using knowledge management approaches, especially for activities that support poor people asset management and the provision of local economic infrastructure. The literature suggests that some Zakat organizations across Muslim world, differ in absorbing knowledge produced by universities mainly in using information and knowledge that support certain sections of poor and vulnerable people (Saad, 2014).

The potentiality of Zakat institutions

Many scholars recognized the importance of reliable and dynamic local systems and institutions to achieve local economic development goals (Clarks, 2010; Bassi et al., 2014; Anand, 2011; World Bank, 2011). Zakat is the third pillar of Islam aims to bridge the gap between rich and poor (Quran, 9:60). Its institutions play a significant role in social protection and socioeconomic

development (IDB, 2014; Hussain, 2014). Zakat acts as a core Islamic socioeconomic policy responsible for social protection and financial stability. As divine self-sustainable institutions, the prime functions of Zakat include collection, distribution and managing Zakat funds.

Recent global changes emphasized that Zakat institutions must reorganize themselves to cope better with contemporary challenges and pressures on poverty eradication and sustainable development. However, Zakat institutions encompass the following potentials:

First, Zakat organization characterized as a financially self-sustained organization (Saad, 2014). That Zakat collection contains all economic activities if Zakat conditions are met including enough Zakatable funds and the annuity of funds. Before disbursement, operational expenses and all necessary expenditure for collection, distribution and management will be covered. However, this involves research work and capacity building expenses to increase the efficiency and effectiveness of Zakat. This character assures the sustainability of the proposed partnership framework.

Second, global consensus to eradicate poverty led by the United Nation 'Sustainable Development Goals (SDGs)' prompted developed and developing countries to accommodate these goals into their national strategies and policies. This implies the integration of all local organizations to focus on deeper, strong and effective strategic participation to strengthen and generate knowledge that can be absorbed and exploited by local communities. Their strategic focus concentrates on building and coordinating macro-level communities of practice to reduce poverty (Hussain, 2015). Research on

social safety net acknowledges the potentiality of Zakat to deliver best results to combat poverty and increase social inclusion (Abdelbaki, 2016). As legal entities, Zakat institutions aim to strengthen social capital and blistering social assets; as they fully aware of social structures, that aids the design and implement more effective local development agendas.

Third, challenges of the knowledge economy pressurized local institutions to formulate effective partnerships to achieve their strategic goals within the national development framework. Among other advocates, the UN (2015) assumes effective partnerships enhance community involvement, institutional capacities, governance and strong accountability that help nations to accelerate the reduction of poverty. In this sense, Zakat institutions are core learning organizations that can create value for the poor and the needy if they exploit their knowledge to the benefit of their strategic objectives (Hussain, 2015). Zakat institutions are ethically trustworthy organization characterized by transparency, professional management and accountability to its stakeholders, (Abdelbaki, 2016).

Forth, modern knowledge economy and knowledge management overshadowed all voluntary, NGOs and community organizations' processes. Zakat economic activities and institutional governance entail the essence of knowledge economy components symbolizing religious commitments and socio-economic development objectives as strategic goals. The holy Quran specifies and priorities eight proceed to distribute Zakat funds that depend entirely on collection. The collected funds require comprehensive knowledge about existing economic activities, businesses,

types of Zakatable funds, Zakat payees (individuals and organizations) procedures and operational processes. A

typical Zakat institution governance and processes are summarized in the following figure.

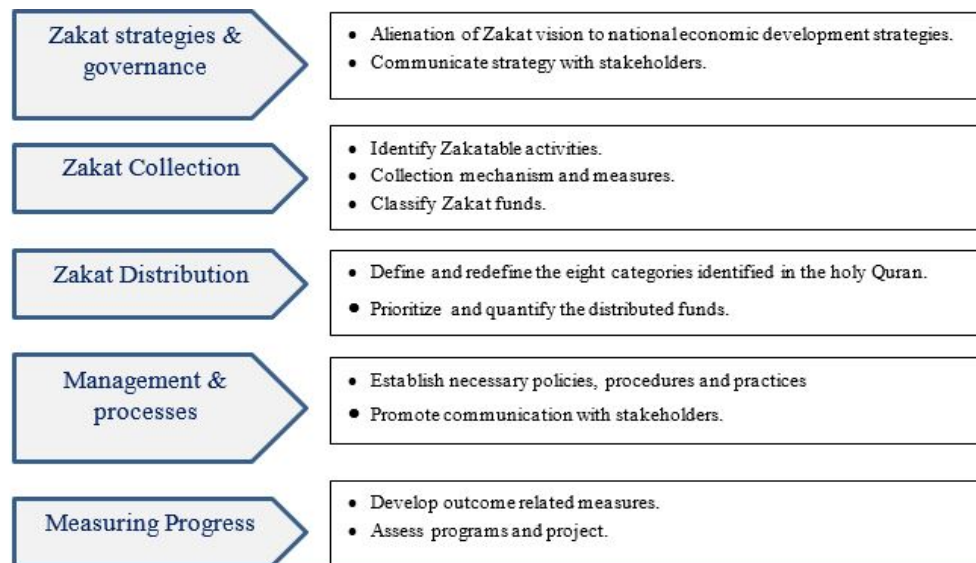


Figure 1. Zakat Processes

Source: Prepared by Author.

Fifth, leading international organizations including the World Bank (2011), UNDP (2011), FAO, IFAD & WFP (2012) stress on knowledge as the prime focus to eradicate poverty. Zakat institutions knowledge loop encompasses insight and foresight knowledge. These include data mining, information, systems, tools, technologies required for ongoing management and practices. The generated knowledge is, however, requires organizational alignment to national strategic approaches, changes in leadership and decision-making processes. By targeting the eight proceeds prescribed in the Holy Quran, (9:60), they have a critical inclusionary mechanism to reshape societal development goals.

Potentialities of Universities

Universities are an important source of knowledge creation and knowledge transfer (Yusuf, 2007; Clare, Chave, 2014). Their strategic directions denote

how knowledge is exchanged to share and to promote exemplary practices and initiatives that have resulted from engaged research, education and services (Théron, 2014). In recent years, their role in enhancing economic growth and socio-economic development have mounted. Many scholars reveal that universities have given freedom to prioritize their own goals building effective engagement within the prevailing framework of shared value and organization's ethics (Banks, 2016; Broström, 2010, and Brennan, 2004). This new role assures the autonomy to create, disseminate and share knowledge to fulfil sustained development agenda.

However, they differ in how knowledge served societies to promote development and economic growth. Accordingly, diverse patterns of university-society interactions, commitment and motives have emerged to formalized different types of collaboration. Although, universities

ability to create and share knowledge is the prime force for successful partnership by conducting relevant research activities covering preventive, remedial and development objectives. Other drives to address societal problems include:

- a. New global trends encourage universities to materialize suitable culture to accommodate the needs of a knowledge economy by enhancing research, local networks, learning programs and objective-driven linkages. This necessitated universities to have a leading edge in research, technology and knowledge creation to effectively engage in realizing the global SDGs together with national, regional and local poverty reduction objectives.
- b. The increased challenge to expand the university's academic engagement beyond the traditional objectives of teaching and learning and research. These include developing and delivering programs to stimulate the emerging local / community economic development activities while sustaining scientific research funds.
- c. Recent recognition of the need for exploiting the capabilities of higher education institutions (universities) in strategic partnership plays a very significant role to achieve a community's development goals. In this sense, universities must reposition strategic partnership within their missions to achieve the desired goals. Such partnership should play a lead role in promoting socio-economic development that is necessary for the knowledge economy.

- d. In a similar vein, the demand for higher education continues to grow in developing world, particularly in Muslim countries. Universities' participation is still below expectations and remains significantly correlated with resource management, wealth creation and income distribution.
- e. Rethinking the role of universities in growth and development necessitates the recognition of local and regional growth and community wellbeing; supporting socioeconomic mobility; Anticipation of future business needs and building talents and supports local organization's evidence-based policymaking.

These potentialities will offer insights into crucial Zakat institutions processes such as recognition of contemporary Zakatable financial resources and activities scrutinizing social protection priorities and approaches among others. Nevertheless, it gives and universities the necessary foundations for building solid societal strategic partnership.

Common interests

The successful strategic partnership relies on flexibility by both institutions to adapt their organizational goals and objectives, shared ethics and values with processes and networks. This is thought to create common strategic objectives and interests.

Zakat institutions are progressively adopting strategies to better access integrating sources of knowledge to identify Zakatable sources of funds and targeting specific section in the society known as Zakat proceeds. This builds a consensus to increase their interest to collaborate with universities. Similarly, a typical strategic mission of

universities has moved beyond traditional teaching and research towards better-addressing community challenges and needs contributing directly to growth and development.

Accordingly, both institutions motivated by such common interests to

improve societal socioeconomic developmental objectives. This will lead to building a useful foundation to propose strategic partnership framework. Figure (2) summarizes common grounds for a successful strategic partnership.

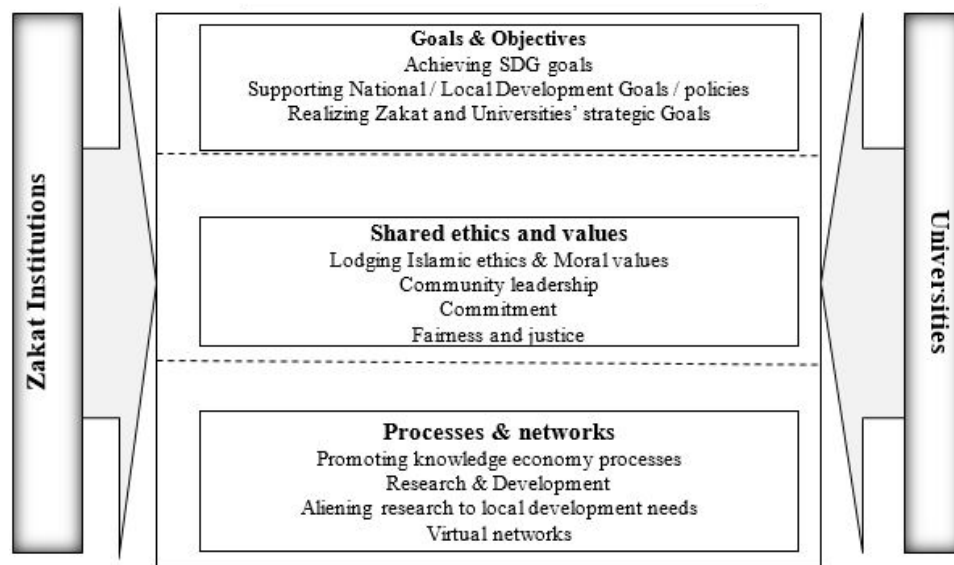


Figure 2. Common Interests

Source: Prepared by Author.

a. Shared goals

Local communities appreciate global SDGs goals announced by the UN, but they also treasure the relationship they have with their own local goals, including Zakat objectives. To complement these goals strong strategic partnership should take place to galvanize and formalize scattered and often isolated attempts. Both Zakat institutions and universities place themselves as anchor organizations at local level targeting sustainable development and knowledge transfer that well documented in their strategic goals and missions including supporting and achieving the nation's development goals while realizing their own strategic objectives.

b. Ethics and values

Zakat institutions and Universities are regularly exploring open and honest practices accompanied by ethics, values and transparency implanting the essences of fairness and justice. Their abilities to establish and promote core ethics and values in their operations and processes are based on their original terms of references. Universities are core sources of knowledge and technology while, Zakat institutions are religious-based organizations seek to enforce Shariah guidelines lodging Islamic ethics and moral values and rules in financial transactions and financial management. The entrusted commitment implies them to become local leaders with

the ability to perform their missions and plans across nations, regions and at local level.

c. *Processes & Networks*

Development goals have changed across frontiers prompted Zakat institutions and universities to rethink their objectives, priorities and processes. Manyika, et al. (2013) indicated a shift in the demand for education, training and knowledge drives the customers (including poor people) to look for more services and innovative products (goods and services). In accordance, both institutions have to tie research to local development needs, utilizing knowledge economy processes to empowering poor and vulnerable people. However, building virtual networks and consolidating

research objectives and processes become an important vehicle to achieve common goals.

THE FRAMEWORK

The success of an effective strategic partnership between Zakat institutions and universities inevitably rests on realizing the common goals. This involves formalizing strategic partnership; resolving challenges and acquiring certain competencies. It depends on mutual recognition of varied Zakat issues and process together with universities' community collaboration goals. To stay focus on crystalizing common interests and strategic goals; there is a need to accommodate partnership goals within their mission, developing necessary approaches to achieve them.

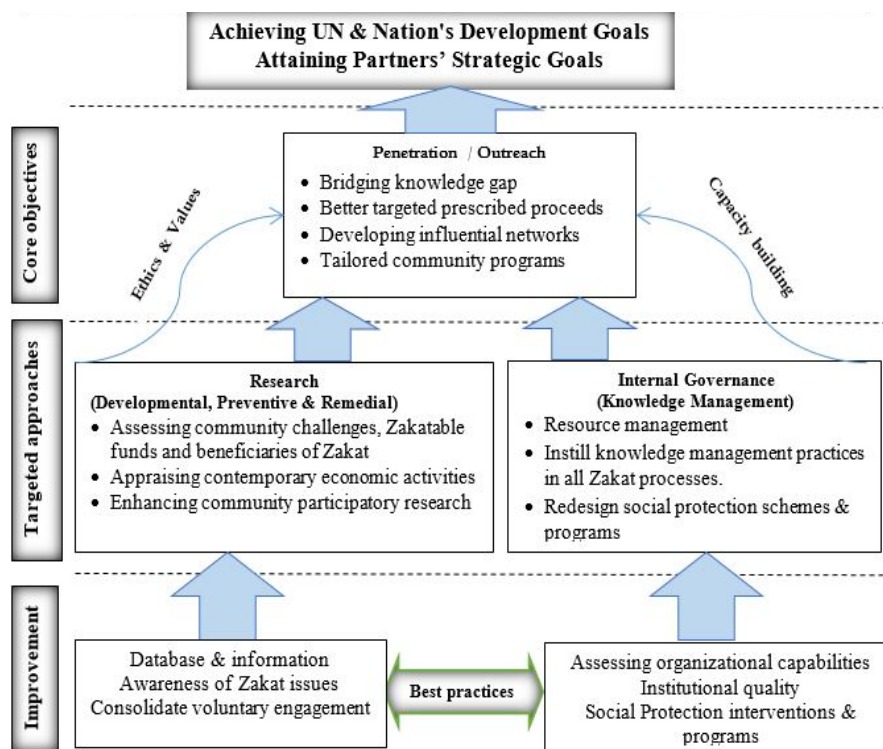


Figure 3. Zakat Institutions – Universities Strategic Partnership Framework

Source: Prepared by Author.

Figure 3 summarizes Zakat-universities strategic partnership. Based on the above rationale and common interests, it rests on two tiers to achieve its goals, the required improvements and targeted approaches. Improvement processes include strengthening database and information; raising the awareness of Zakat issues encompassing social protection and socioeconomic inclusion to enhance local development objectives. Simultaneously, improvements entail internal organization and institutional quality to transform essential organizational capabilities. Progress on social protection schemes and program need to be carefully revised to accommodate the needed improvements.

Targeted approaches follow two different directions; first, the selected research domains develop appropriate gateways to assess community's challenges and emerging economic activities that Zakatable funds depend on, while redefining beneficiaries of Zakat (proceeds identified in the holy Quran). Since universities tend to develop high levels of knowledge and skills, research themes and processes will produce useful insights to understand community's social protection goals. In doing so the practices enrich not only community participatory research but also valid interpretation to their socioeconomics problems.

Second, approaching internal governance is the most crucial element in strategic partnership success. The framework will instil the essence of knowledge management in all Zakat processes (see figure 1). Most importantly, it develops result-based evaluation traditions forcing the processes of knowledge management governance. This implies redesigning social protection schemes and programs

to integrate capabilities and incentives concurrently with the emerging changes in the labour market and community's goals and needs.

The proposed framework is thought to increase penetration and outreach, unlocking Zakat institutions and universities potentials leading to better resource management, and ways to improve societal wellbeing. Penetration, in this sense, will foster new community practices that facilitate cultural values to support knowledge-based growth and sustainable development.

It promotes capacity building that signifies ethics and values approaches; empowering local organizations, and community members' capabilities to tackle poverty and other societal problems. The framework supports knowledge exchange activities, including collaborative research, consultancy, training, risk analysis and resource management and procedures.

WHAT STRATEGIC PARTNERSHIP FRAMEWORK CAN DO?

Controlling the joint strategic actions enhances the shift towards a more strategic approach to realizing institutional objectives and a country's strategic development goals. It assumes to share risks and benefits in attaining social protection goals that promote inclusionary measures accompanying ethics and values and capacity building. In particular, penetration and outreach will enhance the following outcomes:

Bridging knowledge gap

The proposed framework will bridge the knowledge gap which is necessary for emerging activities and modern working lives. The process enriches community development programs, maintaining local accessibility and appropriate education to

meeting labour market demand. Formal agreements with universities to cooperate for long term with Zakat organizations strengthening decision making processes and exchange more information and get more knowledge that improves outcomes, processes and fulfilling national and organization's objectives.

Better targeted social protection components

The strategic partnership will relentlessly advice on whether current Zakat funds can be better targeted "*the eight proceed*" to provide effective support and fair access and identifies Zakatable sources of funds in a sustainable manner that consolidating social capital and social assets.

Improving communication & Networks

The proposed strategic partnership framework builds a robust continual database that improves the depth and relevance of decision making. Its networks frontiers including vertical and horizontal relationships deepen penetration and outreach stimulating robust and inclusive local economic development. This makes antipoverty policies more effective. The framework considers feedbacks from previous programs as a key ingredient in designing new programs.

Tailored Community Programs

Within the domain of Zakat institutions and universities, there are varying programs addressing different themes while targeting various sections in the society. The framework will strengthen existing programs while identifying new ones to tackle specific social problem and emerging challenges. This requires scrutinizing closely Zakat programs relying on the nature of its classified and identified activities and beneficiaries. As for universities, tailored programs focus

on labour market needs and required knowledge and how to share its outcomes across society.

CONCLUSION

This study highlighted the importance of Zakat institutions as an Islamic organization to curtail poverty situations and to achieve social protection goals. It presents the role of Universities as a powerhouse that generates knowledge as enabler to attain sustainable development goals. The paper underlines three different forces that lay the foundation of strategic partnership between Zakat institutions and universities; including the unsatisfactory existing patterns of collaboration; the potentiality of Zakat institutions to reduce the gap between rich and the poor; and the aptitude of universities to strengthening the current knowledge reservoir to eradicate poverty.

It identifies common interests ranged from shared development goals; ethics and values; knowledge processes and networks. Accordingly, the paper proposes a strategic partnership framework that will reinforce penetration and outreach including; *first*: it formalizes strategic partnerships that institutionalize social problems within universities' development objectives. Such collaboration provides a better understanding of poverty and the poor while it generates a variety of differentiated products and services to reduce poverty.

Second, methodologically, it alters how institutions approach their societal goals and respond to community pressures fulfilling the shared socioeconomic values. That the dynamism of poverty requires a continuous search for assessment and appropriate means to address its components. Third, practical

implications include; the provision of tailored programs focusing on vulnerable, poor people and certain societal segments. In this sense, the framework provides a broader and integrated practices to help Zakat institutions and universities to achieve their objectives more effectively and efficiently in releasing their social protection programs.

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The Potential of Application of Technology-Based Innovations for Zakat Administration in India

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ABSTRACT

India is the home country for many Muslims and effective management of zakah is essential to the country. In this era of technology, it is imperative to use technology with zakat to ensure that the classical zakat administration approaches are upgraded to the uruf or customary practices of the society. The objective of this paper is to find out the potential of using technology in upgrading zakat administration in India. This is a qualitative approach where the primary sources such as zakat administration laws in India and secondary sources such as journal articles and published reports on the subject are analysed to derive conclusions. The findings of this paper suggest that the innovations such as rice ATMs, mobile applications, applications made with blockchain technology, artificial intelligence and big data can also play a vital role in the effective management of zakat in India. It is anticipated that the outcome of this research will assist the zakat administrators in India to adopt technology in this regard.

Keywords: Artificial intelligence, big Data, fintech, rice ATM, zakat

INTRODUCTION

In Islam, Zakat is third pillar of the religion Islam. Every Muslim who is capable of paying zakat shall do so without an excuse. In Islam, there are two types of zakat; which is zakat al-fitr and zakat al-maal. Irrespective of the country in which a person resides and the legal system adopted by the country, every Muslim is obliged to pay Zakat as long as the person fulfils the religious requirements to give it. In simple term, zakat can be defined as almsgiving.

Zakat literally means to purify or increase or grow. This literal meaning of zakat indicates that via zakat a person's wealth can be purified and this lead one's wealth to grow and be increased not only physically, but spiritually as paying zakat leads to increase of barakah (blessing) of Allah (SW) in one's wealth. In the Holy book of Muslim, Al Quran, more than 30

different verses Allah (SW) has mentioned zakat. In al-Quran Zakat has been described as a way in which the redistribution of wealth is practised in an economy considering the rights of the poor that must be fulfilled by those who are financially capable in the society.

After Indonesia, India is the largest country in terms of Muslim population. It is estimated that there are 17.18 crore Muslims in India accounting for 14.2 per cent of India's population and there is no exact estimate on how much Zakat is collected in India, with estimates fluctuating between Rs 7,500 crore and Rs 40,000 crore annually (Shaikh, 2019). As such, administration of zakat in India is important and there is a need to effectively manage zakat. The objective of this paper is to suggest the ways in which technology could enhance the administration of zakat in

India. This paper is divided into four parts. Followed by this introduction, part two discusses the existing zakat administration practices in Indian while part three explains the technological innovations made in different parts of the world to administer zakat which India could adopt. The final part of the paper deals with conclusion.

LITERATURE REVIEW

Administration of Zakah in India

In India, there is no central system for zakat administration as zakat is a personal matter. As such, in different states, there are various private zakat managers like NGOs who deal with zakat or zakat payment and distribution becomes a personal matter handled by the individuals.

In May 2019, it was reported that there was a survey conducted across India by the Association of Muslim Professionals (AMP), who sent questionnaires to 4,589 respondents from across various social strata to understand the current practices of Zakat collection, distribution and its impact on Muslim community (Shaikh, 2019). This survey revealed that 77 per cent of respondents believe that zakat has the potential to transform the Muslim community in India and the main concern they raised was thought zakat money is being given for various purposes, there is no specific focus and the payers of zakat they have concerns on not knowing the impact created in the sense that they do not know whether the money they give is having any tangible impact on the lives of those who received it (Shaikh, 2017). The findings of this survey also revealed that 36 per cent of the respondents paid less

than Rs 10,000 as Zakat. Thirty-nine per cent paid Rs 10,000-50,000 (USD?), five per cent paid Rs 50,000-Rs 1 (USD?) lakh, and 10 per cent over Rs 1 lakh and most donations are given by individuals to their own relatives, with 38 per cent saying they preferred paying charity to their less well-off relatives (Shaikh, 2017). Only 16 per cent of respondents paid money to NGOs or community organisations and funding an individual's education was the most preferred form of paying Zakat (Shaikh, 2017). However, with only 18 per cent paying Zakat for education, the number was relatively less (Shaikh, 2017). Over 50 per cent tended to pay Zakat to the same people, and over 55 per cent claimed that the money they gave as charity to someone did not change the life of the family nor were the donors interested in finding out whether the money was being used effectively (Shaikh, 2017). Nearly 47 per cent of the respondents preferred the money being given for the educational empowerment of the community (Shaikh, 2017).

AMP is one of the zakat collectors in the country which has more than 75 chapters across the country which is a registered society under Societies Registration Act 1860, Maharashtra, Mumbai of which the registration number is. 2011 G. B. B. S. D 3001 (AMP, N/A). AMP has their own zakat fund and they publish the performance of their zakat fund in their official website. The official website indicates that AMP zakat fund was created in 2013 to empower the lives of their people by promoting education & self-employment. The information of AMP zakat fund between 2013- 2018 is illustrated in table 1.

Table 1. Performance of AMP Zakat Fund between 2013-2018

Figures/Year	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Total Zakat Fund Collected	2,06,000	7,99,000	20,65,040	38,79,750	43,25,776	69,62,803
Total Zakat Fund Distributed	2,00,000	7,75,773	20,60,000	38,66,000	43,07,150	69,42,300
Balance	6,000	23,227	5,040	13,750	18,626	20503
Fund Utilized for Higher Education	1,00,000	4,00,773	10,60,000	10,30,000	15,57,150	2383500
Fund Utilized for Self Employment	1,00,000	3,75,000	10,00,000	12,65,000	14,25,000	2500000
Fund Utilized for Orphans Scholarship	-	-	-	5,73,000	10,25,000	2018800
Fund Utilized for IIT Scholarship	-	-	-	8,50,000	-	-
Fund Utilized for Specific Donations	-	-	-	1,48,000	3,00,000	40000
Beneficiaries for Higher Education	10	41	106	103	112	167
Beneficiaries for Self Employment	5	18	42	50	71	89
Beneficiaries for Orphans Scholarship	-	-	-	120	174	324
Beneficiaries for IIT Scholarship	-	-	-	5	-	-
Beneficiaries for Specific Donations	-	-	-	6	1	1
Total Beneficiaries	15	59	152	284	358	581

Source: Official Website of AMP

Table 1 indicates that year by year, the zakat collection of AMP has been growing and every year AMP ensures that the zakat collected money is disbursed. This proves that AMP has been conducting initiatives to make public aware about the existence of their zakat fund and the transparent disclosure made by them may have increased the confidence of public in entrusting zakat money to them. AMP has also disclosed their zakat plan for 2019 in their official website where they have stated that the zakat fund collected

in 2019 will be utilised for the purposed illustrated in Table 2.

AMP also disclosed in their official website the bank account to which the zakat money could be deposited and they have disclosed that no administration fee or a cost will be charged for this. Using this information about AMP zakat fund, it is understood that in India there is a decentralisation zakat administration model where private parties who wish to do so have the autonomy to deal with it. Other than AMP, there are many other organisations that do zakat

administration in similar manner which are located in different parts of the India such as Zakat Foundation of India which was established in 1997 which is a non-governmental/non-profit organization which collects and utilizes 'zakat' or charity for socially beneficial projects in a transparent and organized manner (Zakat Foundation of India, N/A). Since there are various organisations managing zakat in India, for the purpose of this paper, AMP will be used for a case study.

Table 2. AMP Zakat Disbursement Plan 2019

Support A Higher Education – Empower Lives	Wherein yearly support of Rs.10,000/- (Rupees Ten Thousand) is given to students pursuing Higher Education in the fields of Engineering, Medicine, Architecture, etc. By this endeavour AMP hopes that the worries of the student getting assistance would be reduced to some extent and they can focus better on their education and try to build a good base for themselves.
Support A Small Business – Make A Happy Family	Wherein support of Rs.25000/- (Rupees Twent Five Thousand) is given to any needy Muslim person/family to start a source of income. Through this endeavor AMP firmly hopes that the Zakat Taker of today becomes the Zakat Giver of tomorrow.
Support an Orphan - Shape A Life	AMP has decided to support the educational expenses of a needy orphan child so that the child is not deprived of even the basic education for want of a guardian. Through this endeavour AMP intends that the orphans in the community should not feel left behind or isolated and the community is right behind them to support them.

Source: Official Website of AMP

RESULTS & DISCUSSION

Use of Technology in Zakat in India

In the case of AMP Zakat fund, it is found that there is no use of technology at all in collection or disbursement of zakat fund. The procedure used is purely based on a bank transfer made to the account or via a cheque sent to the address provided in the website. This proves that there is scope for application of technology by organisations like AMP in India who deals with Zakat. This part of the paper will provide the type of technology that has been adopted in different parts of the world which India could adopt in this regard.

1. Rice ATMs

Rice Automated Teller Machines (ATMs) provide rice for needy without the involvement of a human similar to how cash is dispensed via Bank ATMs. A portion of Zakat money needs to be allocated for the poor and there is need to ensure that a proper mechanism in a less costly manner could be made make this possible. In Malaysia, these Rice ATMs have been installed in mosques (Nordin, 2019) and this is indeed something which India shall consider as well.

In February 2019, it was announced that The Federal Territories Islamic Religious Department (Jawi) hopes to install 'rice ATM machines' at 85 mosques in the Federal Territory to facilitate its 23,000 *asnaf* or tithe recipients (Bernama, 2019). It is reported by Bernama (2019) that the cost of this machine is RM19,000 (USD?) and is the first in the country and it has two

functions, namely to give out rice supply in desired quantity and has a donation box to receive funds from the public. On February 15th, first rice ATM machine was installed at Al-Akram Mosque in Kampung Datuk Keramat.

The main purpose of the Rice ATMs is to provide assistance to recipients (asnaf / beneficiaries of zakat) who are registered as poor for zakat purpose to collect rice using a special card provided to them for this purpose. The modus operandi of these rice ATM's is that the user of the ATM machine must tap the special card they have for the purpose on the sensor of the machine and then the machine will dispense 2kgs of through the designated collection point in the machine which is located in the base of the machine. In this special rice ATM machine, those who wish to donate money for the purpose can also do so by depositing cash through a slot in the machine.

Though this is the first time Rice ATMs are used in Malaysia, rice ATMs were innovated for zakat purpose by The National Board of Zakat, Republic of Indonesia (BAZNAS), and the machine was created by one of alumni of Bandung Technology Institute (Institut Teknologi Bandung or ITB). It was reported in the official website of BAZNAS on 17th January 2017 that the machine in Arthaloka building (in Jakarta) is a prototype of ATM machines which soon to be assembled in ten several location points in Jakarta, Bogor, Depok Tangerang and Bekasi

(Jabodetabek), such as BAZNAS Office (Kebon Sirih Street No. 57 Jakarta) and nine mosques which are cooperated with BAZNAS. Each unit of ATM can store up to 230 litres rice capacity, which can fulfil the needs of 120 households. Then, each unit can be refilled eight times per month. It was also stated that the Rice ATM program is also in line with the BAZNAS support to continuing SDGs in order to eliminate the food shortages for poor people.

It is essential to understand the way the Rice ATMs work. In Sindonews, it was stated that the BAZNAS rice, measuring 60 cm x 60 cm x 160 cm, shaped like a closet box and is very similar to a regular ATM machine and the rice ATM is equipped with electronic devices that hybrid network modem GSM/satellite as well as control and monitoring system-based machine to machine (M2M) or Internet of Things (IoT). The machine can remove the rice in a certain amount automatically and the way it works is that the rice out by attaching the card Radio Frequency Identification (RFID) at the sensor card reader on the device. It was reported that each rice ATM unit has a storage capacity of 1,000 kg of rice to meet the needs for 1,000 recipients and each unit will be recharged as many as eight times in one month. The cost of manufacture and maintenance in a year to Rp30 million per unit and one-time transaction can draw rice from 1 kg and 2 kgs. Rice ATM cards are issued by the mosques.

The questions that might be asked are: why a rice ATM and why not just money? Or why is it

placed in a mosque; rather than a shop or a bank or elsewhere? On 28th February 2019, it was reported that a mosque in North Jakarta provides rice machine for the poor and this program to provide rice ATMs began on 13th January 2019 where at least 33 urban poor had received four free litres of rice twice a week from the machine (The Jakarta Post, 2019). It was reported that Barnas Sumantri, the head of the Jami Raudlatul Jannah Mosque's Welfare Council, said the rice ATM, which provides charity to the less fortunate living around the mosque, operates every Wednesday and Sunday. Barnas has explained the reason behind giving rice and the benefit of it as follows: "by giving rice [as charity], we can feed a whole family. If we give money, Rp 100,000 [US\$7] for example, it might only be enough for one or two persons". It was also reported that the reason why Wednesday and Sunday are chosen is that these are the days the mosque conducts religious studies. As such, there are multiple benefits of choosing these days and Barnas has described these benefits as: "they can get multiple benefits. The *pahala* (reward), the knowledge and the rice. The mosque had given special ATM cards to each of the beneficiaries, and in order to get the rice, the cardholders only have to tap their cards on the machine, and the rice flows into a container.

2. Mobile Apps

Today the use of smart mobile phones are widespread. Therefore, the use of a mobile app for convenience has become a

lifestyle. In some countries such as Malaysia mobile apps have been introduced for ease zakat administration. In June 2018, it was reported in the official website of Lembaga Zakat Selangor (LZS) that they had introduced mobile apps to Penolong Amil Fitrah (PAF) to make zakat fitrah collection in Selangor (Lembaga Zakat Selangor, 2018). It was stated that this project involved 200 selected PAF in Selangor and through these mobile apps, PAF no longer uses a coupon of nature as evidence of zakat payments, instead using mobile apps to issue zakat payments in the field. To make this possible, each involved PAF is given an RM50 (USD?) smart card, printer and internet access facility. Zakat producers only need to provide identification cards for information scans for storage purposes at LZS and the PAF will print the receipt once payment of zakat fitrah is made. This application is supported by a link to the LZS system and it has number of security features embedded. Every personal information of the zakat payers is recorded more efficiently and easily into the LZS system and also the payment bills via immediate withdrawal receipts also increase the trust level of zakat producers with LZS. The advantage of using such an app include reducing the risk of losing the physical coupons as physical coupons that need to be taken anywhere.

3. Zakat Payment via Payment Gateway from Website

Time is money and a convenient mechanism is required to pay

zakat money. Having a website to provide only information is not enough today and it is imperative to have features like making payments via website. It is suggested that India could adopt this convenient way of payment of zakat. A perfect example of this could be the case of Malaysia where Lembaga Zakat Selangor has introduced e-zakat pay which is an online zakat payment method at www.zakatselangor.com.my (Lembaga Zakat Selangor, N/A).

It is stated that e-zakat pay is an online financial transaction platform that links between banks to make zakat payment to the Lembaga Zakat Selangor. There are number of banks which are associated with Lembaga Zakat Selangor to carry out this financial transaction. It is stated that for zakat payment, the payer only need to visit the e-zakat portal at www.zakatselangor.com.my and click on the E-Zakat Pay payment to pay zakat. However, it is a condition precedent for the payer to have an account at the participating bank before proceeding with the payment. Subsequently, the payer shall follow the steps given, and payment of zakat will be completed online. There is no registration and payment needed for using e-Zakat Pay and no additional charges are taken for this service. It is imperative that in e-Zakat Pay, there is no need for the payer to download any application. Everything is taken place from the designated website and the entire transaction is secure as it is encrypted with 128 Bit SSL. Also. In e-Zakat Pay, all

payments will be made in real-time online which is the process of debiting from the payer's bank to the payer's account is being carried out at that time and the process of issuing a zakat payment receipt will be done within 14 working days.

4. Zakat Via Fintech

Today, it is an essential to own a mobile phone and as such, everyone owns a mobile sim. An arrangement could be made with the telecommunication provider by the zakat administration organization in India to ensure that there is a convenient mechanism to pay zakat. A good example to illustrate how this work could be taken from Malaysia, where in 2014, it was reported that Celcom Axiata Berhad, the first and foremost mobile telecommunications provider in the country, facilitated the Muslim customers to pay for their zakat fitrah, anytime and anywhere through the telco's M-Fitrah service (CELCOM, 2014). It was stated that the M-Fitrah service was available in three (3) payment options; SMS, USSD, WEB and WAP. In this case, the telecommunication company was an unauthorized collection agent for zakat fitrah, offering the M-Fitrah service to its Muslim customers in Selangor, Melaka, Kedah, Perlis, Terengganu, Pahang, Sabah and Kelantan. In M-Fitrah service, customers are required to enter "FITRAH<space><STATE>" and send it to 21999 or dial *888*33# for the payment of zakat fitrah via SMS. Next, they will receive a reply from 21999 and are required to send their "<NAME>, <IC

Number>, <number of dependents>” to the same number. Then a verification message will ensue and if the reply is YES, a thank you message and receipt number for each payment made to self and dependents will be sent back to the customers. For zakat fitrah payment via WEB Page, customers can visit www.thecube.my/mfitrah.

Customers will be requested to fill in their details and upon completing the online form, they will receive an SMS from 21999 with a pin code; which has to be keyed into the page in order to complete the submission. For zakat fitrah payment via WAP Page, customers may visit m.thecube.my/mfitrah and enter their mobile number before clicking the submit button. An SMS will be sent from 12028 providing them with an URL link. Upon selecting the link they will be automatically redirected to the M-Fitrah page or they may select M-Fitrah link from the display page. Customers are required to insert their information and will be redirected to the Lifecube page. Through either one of the Web Page or Wap Page, customers will then receive an SMS to confirm their submitted information and will be required to respond via SMS accordingly. For those who need to modify their details, they will be required to respond SALAH and resubmit their application. Upon confirmation of details, another SMS will be delivered to the customer to confirm on the payment and a receipt of payment will be sent via SMS. The organizations dealing with zakat

in India could easily form a partnership with a telecommunication provider and could offer same services to the zakat payers.

5. *Blockchain Applications*

Research is ongoing to integrate blockchain technology to zakat. It is reported that Dr Ziyaad Mahomed, Associate Dean of executive education and e-learning at the International Centre for Education in Islamic Finance (INCEIF), and his team have come up with an Islamic social financing app that leverages blockchain technology. The modus operandi of this app has been summarized by Dr Ziyaad as follows according to the edge markets (2018): “How the app works is very simple. When users turn it on, they are presented with two options: sadaqat (charity) or zakat. If they choose zakat, the app prompts them to select the school of thought they follow — Shafie, Maliki, Hambali or Hanafi — as there are differences of opinion. Then, the app asks a few questions such as where they would like to see their money go. We provide them with a choice of projects such as water irrigation, sanitation, poverty eradication and education. After choosing the project, they complete their payment using a secure gateway. Specific projects are listed. And once the zakat payment has been made, it is registered on a node in the blockchain. Payers will receive confirmation of acceptance. Now, the project has their money. When the money has been fully utilised, the payers will be notified via the app. Thanks to the transparency provided by the

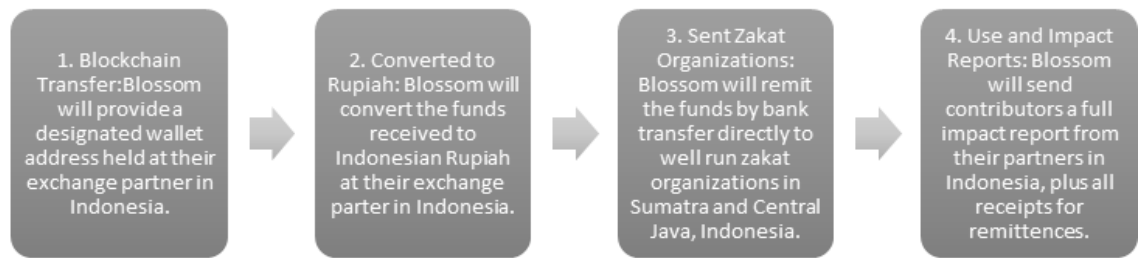
blockchain, there is more confidence among payers that their zakat has reached the intended recipients” (Noordin, 2018). This app was developed in partnership with Dublin-based financial technology (fintech) company AidTech and the International Federation of Red Cross and Red Crescent Societies. It was supposed to be launched in the end of last year, but it is not launched yet. This technology-based innovation promoted transparency in zakat and sadaqat boosting the confidence of contributors.

In May 2018, it was reported that by Indonesian based Blossom Finance that in Ramadan, Blossom Finance is offering a free service allowing Muslims to pay zakat owed against cryptocurrency holdings directly using the blockchain and these payments collected by Blossom will go towards orphans and widows in Sumatra and Central Java, Indonesia via Blossom’s network of cooperatives and nonprofits (Blossom, 2018). It was stated that this service by Blossom is offered free of charge and no payment is charged for using the service. It is stated in the official website of Blossom that how this service works is Blossom will accept payments in cryptocurrency directly via the Blockchain to a Blossom controlled wallet held at a cryptocurrency exchange in Indonesia. Blossom then converts the cryptocurrency to Indonesian Rupiah and deposits the amount into the bank accounts of their

cooperative and nonprofit partners located in rural areas in Indonesia. How this works is summarized in the Figure 1.

With regards to the issue of exchange fees it was stated that Blossom has consulted with their internal shariah advisory and they have been advised that exchange fees incurred when converting from cryptocurrency to local currency qualify as part of the total zakat payment. Bearing this in mind, it is stated that Blossom will try their best to trade the crypto in a way that incurs minimal or no fees. It is essential to note that Blossom Finance has published a working paper on the permissibility of Bitcoin and cryptocurrency and has concluded that bitcoin qualifies as Islamic money, except where banned by local government, but cautions investors against speculation, initial coin offerings (ICOs) and investment schemes. Blossom Finance helps institutions to raise cost-effective, Shariah-compliant financing from global investors using blockchain technology on its Smart Sukuk platform. Blossom was founded in 2014 to increase the availability of halal financial products using technology. Since 2015, Blossom has been helping microfinance institutions in Indonesia raise funds from international investors to fund micro-businesses aimed at reducing regional poverty.

To make zakat administration more efficient and transparent the use of blockchain technology with smart contracts could be used in India as well.

Figure 1. Blossom's Procedure to Pay Zakat via CryptoCurrency

Source: Information extracted from the official website of Blossom

6. Artificial Intelligence

The functions performed by humans are being replaced by machines and artificial intelligence is being utilized in the financial industry now. Another innovation we see is zakat chatbots powered with artificial intelligence technology replacing the officers who provide information about zakat and on the calculation of it. This could be described as an improvised version of the simple zakat calculators we use now. In this regard, Al-Riyami, et. Al. (2014) from Sultan Qaboos University of Oman have presented in 15th European Conference on Knowledge Management, ECKM 2014 a research on zakat expert system (ES). They state that ES is a part of applied artificial intelligence and the idea of an ES is to convert knowledge from human expertise to a computerized system. The objective of their study is to apply expert system technology in the field of Zakat to assist Muslims in the decision making of identifying the rules of making Zakat and to assist in complex calculations. They state that the objective of the Zakat ES is to specifically help people calculate the amount of

each type of Zakat they have to pay every year, the system helps users to: (1) determine if they are required to give Zakat, (2) determine the unique conditions, and the amount of each type of Zakat they have to pay every year. The system was developed based on a rules-based expert system shell. To develop such a system, information that is attained from a human expert is represented in the form of rules, such as IF-THEN. Then the rules are used to perform operations that lead into achieving certain goals. It is stated that after reviewing the Zakat expert system, the majority of the 20 potential users also indicated that the system saves time and effort in searching for information related to Zakat's rules. Users also indicated that it is very useful for calculating Zakat quickly and accurately, and is very beneficial, convenient, and easy to use for people who have no knowledge about Zakat. Other strengths of the system are that it is more convenient than going to human experts and provides a variety of Zakat types.

In 2017, Pahang Zakat Collection Center (PKZ) has also introduced a chatbot called ZakatChat (APPAGG, N/A).

ZakatChat is an artificial intelligence-based application provided by PKZ to smartphone users and visitors to PKZ's official website to interact and help answer questions about zakat property. It is stated in their official website that ZakatChat uses a specially programmed search engine technology to match questions asked with available databases. In addition, ZakatChat also guides users to obtain additional information from other mediums if the information is not available in the ZakatChat database.

In 2018, in collaboration with PT Artina Digitama Indonusa (Artdigi), the Baznas of Indonesia launched a Zakat Virtual Assistant Chatbot named "Zaki" for the first time in Indonesia (The Jakarta Post, 2018). It was reported that Zaki can be accessed on the LINE messenger application under the name @zakibaznas and in the near future it will be available on the Facebook Messenger chat application and the community can calculate the amount of zakat accurately, literacy, and zakat education as well as information on Baznas social and humanitarian programs. Zaki's features that will be coming soon include maps of the nearest mosque location, prayer schedule reminders to da'wah material. With chatbot technology that is equipped with Natural Language Process, it allows this feature to be able to chat with users to analyze the wishes of the users. Apart from the chatbot, BAZNAS has developed an internal platform, for donation services

through the BAZNAS website (baznas.go.id/zakatsekarang) and through the Muzaki Corner application service. An external platform, where the platform comes from BAZNAS partners who provide special space and options for the community to zakat through BAZNAS. Some of the examples for this are the option of zakat and charity through kitabisa.com, [gojek](http://gojek.com), [bukalapak](http://bukalapak.com), [tokopedia](http://tokopedia.com), and others. Apart from this social media platform to facilitate direct donations through social media is made. National Zakat Index (IZN) is also introduced to measure zakat. BAZNAS has also a plan to introduce an electronic commerce platform to increase market access for mustahik products benefiting the productive zakat program.

India also can consider using artificial intelligence to improvise zakat administration.

7. *Big Data*

Zakat information or data management also face challenges as information on zakat including the payers, distributors, receivers and other stakeholders need to be maintained and the volume of these data are growing day by day. Big data can resolve this. Big data can be described as a technology that enable to analyze, systematically extract information from, or otherwise deal with data sets that are too large or complex to be dealt with by traditional data-processing application software. Sulaiman, et.al. (2015) has stated that the main difficulty in handling large amount of data is due to the five big data concepts involving volume, velocity, variety, veracity and value which

increases rapidly in comparison to the computing resources and zakat administrators are currently facing issues with the growing amount of data on zakat payers, zakat distribution and various zakat recipients. They state that overwhelming amount of data must be carefully managed by the zakat institutions and the appointed zakat fund trustees as zakat data resides in massive, unstructured information, largely in various forms of numeric, text and imagery, there is a need for zakat institutions to switch to better data management mechanism. Their study proposes a big data maturity model to gauge the readiness of zakat institutions to embark into the big data evolution and the proposed model also provide the zakat institution with more structured processes of managing the high volume of data in order to provide better reporting transparency, making well-informed decisions and instil confidence and trust from the community on better zakat management and distribution.

Indeed, big data could be helpful for zakat administration in India too.

CONCLUSION

It is evident from this paper that currently the use of technology in zakat in administration in India needs to be improved. This paper has suggested some of the technological innovations that could be adopted in this regard. Since this is the era of technology, there is need to adopt technology as the 'uruf or customary practices of this

generation of humans. As illustrated in this paper, each and every technological innovation has its own unique advantages which will definitely assist in resolving some of the existing issues. There is no lack of Information technology experts in the country and it is hoped that the findings of this paper will assist organizations like AMP to consider using technological innovations to manage zakat.

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A Maqashid and Shariah Enterprises Theory-Based Performance Measurement for Zakat Institution

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ABSTRACT

This study aims to develop a performance measurement system for zakat institutions from the perspective of maqashid al-Shariah and Islamic enterprise theory. This study embarks from previous studies focusing on the performance measurement methods applied to the zakat institutions. The understanding of maqashid al-Shariah in this paper refers to the concept formulated by Al Ghazali and Ibn Ashur. The basis of selecting so is their widely known concept in the contemporary research. This paper concludes that the performance measurement based on maqashid al-Shariah for Islamic bank can be adopted in zakat institution by making various adjustments according to the characteristics of the institution. In addition, this study also designed a performance scorecard to assess the performance of zakat institutions based on maqashid al-Sharia and Islamic enterprises theory. This scorecard method can calculate the index of zakat management of the related institution from a broader perspective.

Keywords: performance, measurement, maqashid al-Shariah, enterprise theory

INTRODUCTION

Poverty is a classic problem that massively occurs in developing country. Poverty is a complex problem. Poverty and its implications can involve all aspects of human life. To reduce the problem of poverty, Islam offers zakat as a comprehensive solution. That is, one of the reasons for establishing zakat institution is to improve the effectiveness of zakat management. In Indonesia, such government institution is called as the National Board of Zakat, Republic of Indonesia (BAZNAS), while those the private ones called *Lembaga Amil Zakat* (LAZ). Both are governed under the law No. 23 of 2011.

According to National Zakat Statistics 2017 published by BAZNAS, the number of zakat institution in Indonesia reaches to 603 institutions. However, the overall percentage of zakat collection in the nationwide of Indonesia

for 2017 period, only reached 2.9 percent from its potential of Rp. 217 trillion (BAZNAS, 2018). Aibak (2015) argued that one of the reasons for the low concern of the community in paying zakat formally to the institution is because the institution's method of collection. In some cases, the zakat management institution seems to be passive in collecting zakat.

In order zakat can achieve its objectives, the institution must be in accordance with the objectives of Shariah or maqashid al-Shariah. Maqashid al-Shariah is the basic paradigm of Islamic economics (Muzlifah, 2013). The importance of maqashid al-Shariah concept has been addressed by some researchers. In the context of zakat institution, Hapsari and Abidin (2016) examined the distribution of zakat based on the maqashid al-Shariah framework. The same attempt was also done Mardiah and Jamil (2016)

who reviewed the effectiveness of the distribution of zakat at the Dompot Dhuafa (DD) Palembang. The results of the study show that through various programs, DD Palembang has been able to promote maqashid al-Shariah in the local context.

Furthermore, Fitria (2018) examined the conformity of social entrepreneurship programs in zakat institutions using maqashid al-Shariah and sampled DD for a case study. The work highlighted the significance of the concept to be employed when analysing the performance of Zakat institution. In like manner, Nugroho & Wahyuni (2019) elaborated upon the necessity of maqashid al-Shariah to develop a framework for designing and implementing performance measurement. They tested their method by measuring the performance of the al-Haromain zakat institution in Malang based on the concept of the balanced scorecard and the perspective of maqashid al-Shariah. These reviewed studies indicated the importance of considering maqashid al-Shariah when analysing the performance of Zakat institution.

As elaborated in the above text, this study aims to expand the previous studies by constructing more comprehensive model of performance measurement for zakat institution based on maqashid al-Shariah and Islamic enterprise theory. This study integrates these concepts for a comprehensive method of measurement.

Measuring the performance of zakat institutions is important. This is because in general, the need to assess the effectiveness and the efficiency of zakat institutions is vital for their improvement. The simplest way to evaluate the effectiveness of zakat institutions is by looking at the speed of transformation of converting a mustahik

to be a muzakki, even to achieve so requires an extensive work. Thus, it is interesting to assess the degree to which a zakat institution has been endorsing the concept of maqashid al-Shariah, particularly in the context of Indonesia.

In the next section, the theoretical explanation is discussed further covering the concept of maqashid al-Shariah, the innovation in the management of zakat and the understanding of stakeholder theory. Further, the discussion also mainly reviewed some relevant previous studies. The main part of this paper establishes the design of performance measurement for zakat management. Finally, this paper provides conclusions, implications and suggestions.

LITERATURE REVIEW

Maqashid al-Shariah

According to al-Syathibi as quoted by Aibak (2015), the Shariah actually aims to realize the welfare of humans in the world and the hereafter. From this basis, it is clear that in fact the laws were not made for the law itself but were made for the purpose of all human being. Muhammad Abu Zahrah asserted that the welfare for all human being should be achieved through individual education, the realization of justice and welfare of the community (Mohammed et al. 2008).

Al-Ghazali as mentioned in the study of Syofyan (2017), stated that the primary purpose of Shariah is to promote human welfare, which lies in protecting the followings;

- a. faith (din),
- b. life (nafs),
- c. intellectual (aql),
- d. progeny (nasl), and
- e. wealth (maal).

Further, Mulyana (2017) concluded the concept of welfare in Islam, which is rooted from Al Ghazali's notion of maqashid al-Shariah. In the study, maqashid al-Shariah is believed to be the most comprehensive concept of welfare. That is because the concept not only covers the elements of material needs but also moral and spiritual aspects. Thus, it what differs from the concept of welfare which is promoted by the western concept, which only focuses on the material aspects.

Based on the above explanation, it is clear that maqashid al-Shariah has not only the dimension of the worldly aspect but also the hereafter.

Innovation in zakat management

Komariyah (2013) explained the main purpose of zakat is to realize justice. Therefore, zakat is required in narrowing economic inequality in the society, by distributing it specifically to certain groups who we call them as Mustahiks (zakat recipients). As prescribed in al-Qur'an, zakat is distributed to eight *ashnafs*, which are;

- a. Fakir (the poor),
- b. Amil (now can be described as those who work in Zakat institution),
- c. Muallaf (those who revert to Islam)
- d. Slaves,
- e. People who are in debt,
- f. Fisabilillah and
- g. The wayfarer.

There are many innovations in management of zakat to increase the benefit of zakat to the society. One of them is the concept of productive zakat. According to Aibak (2015), zakat distribution can be classified into four;

- a. Zakat distributed traditionally for consumption,
- b. reative consumptive,

- c. traditional productive and
- d. creative productive.

Traditional consumptive is the distribution of zakat to be used directly by the mustahik, to meet their daily needs. The creative consumptive is the distribution of zakat which is manifested in other forms of the original goods, but still in the consumptive category, for example zakat is distributed in the form of school tools or scholarships.

Furthermore, traditional productive zakat is the distribution of zakat given in the form of productive goods such as buying goats, cows, commercial equipment and so on. Finally, creative productive zakat, which is the distribution of zakat which is made in the form of business capital.

According to Muhammad & Mas'ud (2005) as quoted in Ningrum (2016), productive zakat is the giving of zakat enabling the recipients to sustain the property from the received zakat. In other word, productive zakat is zakat where the assets or zakat funds given to Mustahik are not directly spent but it converts into a capital like asset. This is done to strengthen their businesses capacity and capability. By musthahik being enhanced their capacity and capability, their business will be able to generate more income and profit. Finally, they can fulfil their needs sustainably.

There are four models of productive zakat distribution (Muhammad, & Mas'ud, 2005). First, *budget surplus model*. In this model, zakat is partly distributed and the rest is used for productive projects. Second, *in kind model*. It is a system of zakat distribution where zakat funds are not distributed in the form of money but are given in the form of production equipment. Third, the *revolving fund model*. This model provides loans to the mustahik in the form of *qardhul hasan*

financing. The mustahik is to return the initial amount of loan.

Shariah enterprises theory

This theory was developed by Triyuwono (2001). The idea that profit-oriented or stockholders-oriented in conventional companies are seen to be not the right orientation for Islamic companies. To replace the concept of stockholders-oriented, the author suggested the use of Shariah enterprises theory which is oriented to zakat (zakat-oriented), oriented to preservation of nature (natural environment) and oriented to stakeholders.

Furthermore Triyuwono (2001) explained that the orientation of zakat means that the company will strive to achieve the optimum realization of zakat (both material and value). Then the environment and stakeholder-oriented has the implication that Shariah organizations must have a concern to distribute the “welfare” (added value) that has been successfully created to nature and stakeholders. This Shariah enterprises theory has been used by Hermawan & Rini (2016) to analyze the effectiveness of the management of zakat institutions. In their research, Hermawan & Rini (2016) claimed that the sampled zakat institution had performed its obligations to God, and to stakeholders. However, for obligations to nature and employees have not been fully met.

Maqashid-Based Performance Measurement Model for Islamic Banks

Mohammed, et al. (2008) developed performance measurements based on Abu Zahrah’s maqashid al-Shariah. These include;

- a. individual education,
- b. establishing justice, and
- c. public interest.

Based on the Abu Zahrah concept, Mohammed et al. (2008) designed a technical performance measures for Islamic banks. The work done by Mohammed et al. (2008) has significantly influenced scholarly discussion on measuring the performance of Islamic banks. For example; the recent study done by Hudaefi & Noordin (2019); Kholid and Bachtiar (2015), and among others, are the example of how the work of Mohammed et al. (2008) has credited the novelty to the general discourse of Islamic economics.

Furthermore, Mohammed et al. (2015) developed further the performance measurement for Islamic banks with employing the five elements of al-Ghazali’s maqashid al-Shariah. These including preserving;

- a. Religion,
- b. Life,
- c. Intellect,
- d. Progeny, and
- e. Wealth.

In designing performance ratios, Mohammed et al. (2015) employed the concept of maqashid of Al Ghazali with the concept of maqashid of Ibn Ashur as explained in Table 1.

Thus, from the above elaboration, it is rationale to develop the performance measurement based on maqashid al-Shariah in the context of zakat institution.

Maqashid al-Sharia on Management of Zakat

Mardiah and Jamil (2016) examined the suitability of zakat distribution program of DD Palembang with the concept of al-Ghazali’s maqashid al-Shariah.

The results of the study can be seen in Table 2. The researchers concluded that with the programs implemented, DD Palembang has been

able to promote the five objectives of Shariah.

MAQASHID AL-SHARIAH-BASED METHOD OF MEASUREMENTS FOR ZAKAT INSTITUTIONS

Benefit of Zakat for Mustahik

The first stakeholder of zakat institution is mustahik. Mustahik will receive great benefits from zakat institutions depending on the quality of zakat distribution system.

Rahmawati (2011) argued that in the view of Islamic economics, the distribution system is part of economic activity that has a strong influence on the distribution of people's welfare. Distribution system according to Islam is a rule that cannot be separated from the provisions of *maqashid al-Shariah*. Therefore, there are two things that must be considered in an effort to improve welfare, they are;

- a. Reducing the gap between community groups by opening jobs, and
- b. Providing direct assistance to the poor, so that they can improve their quality of life.

According to Shariah, mustahiks who are staying around zakat institutions must get first priority to receive zakat. Once all the designated mustahik receive zakat, then the remaining zakat can be allocated to other regions. In addition, zakat managers also need to consider the form of zakat distribution whether zakat will be distributed in the form of traditional consumptive, creative consumptive, traditional productive or creative productive.

Amymie (2017) explained the programs carried out by BAZNAS can be classified based on sectoral grouping, namely;

- a. Economy;
- b. Social and humanity;
- c. Health;
- d. Education; and
- e. Preaching.

The distribution of zakat in BAZNAS must be considered in accordance with the *maqashid al-Shariah*.

Benefit of zakat for Muzaki

For muzaki, zakat is the implementation of one of the pillars of Islam. Therefore, by carrying out the obligation of zakat, muzaki has performed the first goal of *maqashid al-Shariah*, which is to preserve religion. In addition, zakat serves to purify property. Therefore, by paying zakat, muzaki has achieved the fifth element of *maqashid al-Shariah*, which is to preserve property. On this point, it can be understood that zakat institution has assisted muzaki in achieving two objectives of Shariah, which are preserving religion and preserving wealth.

Zakat institution must help muzaki to pay zakat correctly and properly. Therefore, the zakat needs to be socialized with Shariah rules to determine the amount of assets that are zakat-able. Knowledge and understanding of the assets owned such as income, living expenses, debts owned, primary and non-primary needs must be known and considered. In addition, socializing zakat to muzaki, the benefits received by muzaki may enhance the muzaki easiness for paying their zakat.

Aibak, (2016) in a study conducted at BAZNAS Tulungagung, provided an explanation on how zakat institutions can improve services to muzaki so that muzaki will be easier, comfortable and willing, to pay zakat. Zakat paid by employee in Tulungagung regency is collected by the zakat unit

which is usually called as *Unit Penerima Zakat* (UPT). Following this, UPT proceeds the collected zakat to BAZNAS.

Benefit for Amil

Amil has the responsibility to manage zakat. With this responsibility, amil has sacrificed his time and energy to manage zakat institutions. Through their expertise, which requires formal and informal education, amil has worked for a significant contribution to the success of the zakat institution. Because of the contributions they have made, amil has the right to receive rewards for what they give.

In addition, most amil zakat working in zakat institutions are employees of zakat institutions. Perhaps the income from the zakat management organization is the only salary they receive. Therefore, the welfare of amil needs further attention, so that amil will get benefits, especially to get the fifth element of *Maqashid al-Shariah*; increase prosperity through wealth improvement.

Nevertheless, improving prosperity is not the only amil objective. Amil also has the right to get other *maqashid al-Shariah* elements that are preserved for their religion, life, intellect and descent. To preserve religion, zakat institutions may design programs such as religious lectures, congregational prayers and various other activities. To protect amils' children, the scholarship program is an appropriate alternative. Provision of amil salaries needs to be considered carefully, because *Shariah* rules limit amil rights to a maximum of 1/8 of the amount of zakat received. Accordingly, amil welfare improvement can be attained by taking funds from other sources, for example unrestricted *infaq* or funding assistance from the state budget or regional budget. If salary

payment system of zakat institution complies with *Shariah* rules, it will be possible for amil to obtain the five *maqashid al-Shariah* as explained before.

The benefits received by amil from zakat institutions are greatly influenced by the level of public trust on the zakat institutions. One important aspect affecting the level of public trust on zakat institutions is the accountability of zakat institutions. This is part of the findings of study done by Ikhwanda & Hidayati (2019).

The findings of the study imply that zakat institutions need to improve their accountability to gain trust from the public. By enhancing trust from the public, zakat institutions will be able to develop and continue functioning effectively as a trusted institution. In addition to accountability, public trust is also influenced by the degree of transparency, professionalism and competency of zakat institutions in managing zakat.

Benefit for nature/environment

Shariah enterprises theory of Triyuwono (2001) stated that organizations based on Islamic principles must provide benefits to all stakeholders, both direct and indirect stakeholders, and provide benefits to nature. Nevertheless, the results of a study conducted by Hermawan & Rini (2016) stated that zakat institutions have not fully been able to provide benefits to nature even though responsibilities to other stakeholders have been fulfilled.

Performance measurement system for zakat institution

Developing a quantitative performance measurement system is critical, so that an index can be produced to measure the performance of zakat institutions. This study suggests zakat institution to adopt

the performance measurement scorecard. This method is designed following Mohammed et al. (2008) with some adjustments and contextualisation to the nature of zakat institution.

The authors of this paper are of the view that the performance measurements proposed by Mohammed et al. (2008) are more appropriate for measuring performance at the overall organizational level. This is due to the data used to measure performance ratios are taken from the annual reports and

financial statements of zakat institutions as a whole. It is important to be noted that the weakness of the performance measurement is not considering whether the zakat institution has fulfilled its obligations to all stakeholders.

To make practical contributions to zakat institutions, this study designed a more comprehensive performance measurement scorecard that can be applied at the organizational level as well as the organizational unit level described in Table 3.

Table 1. Al-Ghazali and Ibn Ashur Maqashid al-Shariah

Maqashid Sharia Al Ghazali	Maqashid Sharia Ibn Ashur
Preservation of religion/faith	Freedom of faith.
Preservation of life/soul	Preservation of human dignity. Protection of human right.
Preservation of intellect/mind	Propagation of scientific thinking. Avoidance of brain drain.
Preservation of progeny	Care of family.
Preservation of wealth	Wellbeing of society. Minimising income and wealth disparity.

Source: Adapted from Mohammed et al. (2015)

Table 2. Maqashid Sharia and Type of Program in Dompot Dhuafa

Maqashid Sharia Al Ghazali	Program/Activities
Preservation of religion/faith	Amazing Muslimah. Ramadhan.
Preservation of life/soul	Health Services Mustahik Empowerment Home based clinic
Preservation of intellect/mind	Educational Scholarship
Preservation of progeny	Indonesia Creative Orphans
Preservation of wealth	Farmer Empowerment Livestock's Empowerment and Beneficiaries Incubator

Source: Mardiah & Jamil (2016).

Table 3. Performance Measurement Scorecard for Zakat Institution

Program Activity		Maqashid al-Shariah					Index/Item	Financial Benefit					Index/Item
		MS1	MS2	MS3	MS4	MS5		Muzaki	Mustahik	Amil	Nature	Society	
1	A	1	1	0	1	1	0.8	1	0	1	0	0	0.4
2	B	0	1	1	1	1	0.8	0	1	0	0	1	0.4
3	C	1	1	0	0	1	0.6	1	1	1	1	1	1
4	D	0	0	1	1	1	0.6	1	0	1	0	0	0.4
5	E	1	1	0	1	1	0.8	1	0	0	0	0	0.2
Index/Item		0.60	0.80	0.40	0.80	1.00	0.72						
Maqashid Index													
Benefit Index													0.48
Performance Index							0.6						

Source: computed by Authors.

CONCLUSION

This study has discussed previous research related to performance measurement based on maqashid al-Shariah in general context of Islamic banking and linking it to the context of zakat institutions. The results of the existing scholarly works were found that significant efforts have been made to develop the concept of performance measurement, including for zakat institutions. To complement what has been designed by previous research, this study designed a performance measurement scorecard which function is to complement the existing performance measurements. The discussion in this paper leads to conclude that, the performance measurement techniques in zakat institutions consist of at least:

- 1) Performance measurements that identify the allocation of resources for each element of the maqashid al-Sharia;
- 2) Performance measurement that identifies the allocation of resources to each stakeholder;

- 3) Performance measures that integrate the concepts of maqashid al-Shariah, and Shariah enterprises theory (SET) as exhibited in Table 3, that identifies the programs carried out by zakat institutions to meet maqashid al-Shariah and fulfilled their obligations to all interested parties and stakeholders.

The performance measurement based on maqashid al-Shariah as developed in this study is relevant to zakat stakeholders. Zakat institutions may employ the developed benchmark to communicate their performance on maqashid al-Shariah, so that their efforts in actualising so is measurable.

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