



Forecasting The Potential Role Of Cash Waqf As a Islamic Social Fund In Eradicating Poverty And Improving Social Welfare: The Use Of Weighted Moving Average Method Study at Special Region of Yogyakarta (DIY)

Anggari Marya Kresnowati¹, Izra Berakon²

^{1,2}The Faculty of Islamic Economics and Business,
State Islamic University Sunan Kalijaga, Yogyakarta, Indonesia
Email: anggari.marya50@gmail.com, mas.izra27@gmail.com.
Phone Number: +6285235069171, +6285743783046

Abstract : This research investigates the role of cash waqf as a Islamic social fund in eradicating poverty in Special Region of Yogyakarta. Researchers combine both of quantitative and qualitative research methods (triangulation) to increase the perceived quality of research findings. To answer the problems, researchers employ three steps analysis, firstly forecasting with statistical approach using the weighted moving average method; secondly cash waqf simulation; and thirdly researchers propose The New Integrated Model Of Cash Waqf Information System. The results of this study has succesfully answered the progress of cash waqf, the support of stakeholders (government, financial institutions and society) to achieve target of cash waqf. Based on the forecasting moving average method, it can be seen that the collected fund of cash waqf is still very fluctuating in some future period following the trend of cash waqf fund before. In the simulation of cash waqf based on expenditure distribution at DIY , to reach the target of cash waqf in one year, for example in 2018, that is equal to Rp. 684,646,315.33, each household only spend about of Rp. 60,000 to Rp. 80,000 per year. If all Muslim societies especially at DIY have realized the importance of cash waqf, then the potential cash waqf cant be maximized and the flow of cash waqf returns can be distributed to strengthen the social pillars of the region such as poverty, hunger, health and eduaction.

Keywords: cash waqf, eradicating poverty, forecasting, simulation, integrated model

Introduction

Research Background

In the opening of the 2nd Annual Islamic Finance Conference entitled "The Role of Islamic Finance in Eradicating Poverty and Income Inequality" organized by the Fiscal Policy Agency, Sri Mulyani as a Minister of Finance of Republic of Indonesia conveyed in her speech that waqf is one of Islamic financial instruments that plays very potential to solve poverty problems and improve the welfare of Indonesian people. Still in the same forum, at different times Bambang Brodjonegoro as Minister of National Development Planning explained that zakat and waqf are potential Islamic social fund can be used as a source of funding but their existence is still hidden because a lot of people in Indonesia have not yet understood about the role of zakat and waqf. Furthermore, he said if both of Islamic financial instruments are professionally managed, then systematically could be a weapon to eradicate the poverty rate and reduce social inequality, and finally support Indonesia to achieve the National Development Target in 2030.

Nowadays, poverty is a big problem that faced by developing countries, one of them is Indonesia. The empirical facts reveal that in March of 2017, 27 million people living below the poverty line or 10,5% of the total population in Indonesia. Ironically, the poverty rate in 2017 increased by 0.5% from the previous figure. In the period 2013-2017 or in the last five years,

poverty rate does not show significant change. This fact clarifies that government have to commit and strive reducing poverty through appropriate and targeted planning programs.

The APBN posture tends to deficit year by year. In 2017, Indonesia's revenue was 1,750.3 trillion, that is fantastic but still not be able to meet the needs of the State Expenditure of 2,080.5 trillion. Quantitatively, Indonesia still has a budget deficit of 330.2 trillion in 2017. Several alternatives have been made by the government to cover the budget deficit. The government still needs a social financing instrument in order to support the development targets, especially to reduce unemployment, alleviate poverty, decrease gini index ratio and improve the human development index.

Poverty alleviation is the government's main task to be resolved. The programs that have been prepared by the government such as Family Hope Program (PKH), Health Indonesia Card (KIS), Smart Indonesia Card (KIP) and a number of scholarships specifically addressed for children from poor families. Therefore, in order to achieve development targets, the government must provide a large attention to poverty problems.

According to Prof. Abulhasan M. Sadeq (Khan, n.d.) poverty alleviation schemes should be developed through investigation of the causes of poverty. Khan, n.d. said poverty can be explained through two approaches: macro and micro level approach. Further explained, there are two possibility that causes of poverty at the macro level: firstly the low GDP levels and secondly unfair income distributions. Meanwhile, micro level approach can be caused by several factors such as: unemployment or being born from a poor family.

Qaradawi (2008) in his book entitled "Poverty Alleviation in Islam" explains that Islam has three solutions or methods for alleviating poverty, consist of: firstly, this method is related to "Self Responsibility" means, if someone has ability and opportunity to work, their job become their income. The state's obligation is to assist its people through training programs and capital provision so as to find the right job. Secondly, this method is related to "Muslim Ummah" means Muslims are responsible for others poor Muslims to help finance and hope to get reward from Allah through zakah, charity and waqf. Thirdly, this method is related to the responsibility of an Islamic state to guarantee the poor people who do not have job, whether they are Muslims or non Muslims, as long as they live in the area of Islamic state.

Indonesia as the country with the largest Muslim population in the world has enormous potential to utilize Islamic social financing instruments, sourced from the people and will be back to the people. Islam has social fund instrument known as Zakah and Waqf. Both Islamic financial instruments have been applied by Prophet Muhammad SAW and other Muslim leaders in governance, economist, and serve as one of the strategies to eradicate poverty.

According to data from Directorate of Waqf Empowerment Ministry of Religious Affair RI (March, 2016), the national land waqf assets reach 4.35 billion m² located at 435,768 places in Indonesia. Furthermore, according to information obtained from Indonesian Waqf Board (BWI), the potential of cash waqf in Indonesia is 20 Trillion. This potential estimation can become a real amount when 9% or about 20 Million of the total population in Indonesia allocates one million per year for cash waqf.

Professional cash waqf management systems still need to be assisted by the government in order to achieving Sustainable Development Goals (SDGs) of Indonesia. The four pillars which targeted by the government are social, economic, environmental and justice and governance. In principle, waqf is a social fund managed to meet the needs of people's lives. Cash waqf is a syariah financial instrument that can be used as a solution to eradicate economic crisis in Indonesia.

Problems Identification

This research arises from number of problems that prevent the growth of cash waqf in Indonesia. Moreover, the researcher identify some problems and classify them to two categories of problems, including research gap and cash waqf management problems.

1. Research Gap Problems

- a. Limited researches that links between implementation of cash waqf toward poverty alleviation agendas.
- b. Lack of use advanced statistical method to properly predict cash waqf fund accumulation in the long term period.

2. Cash Waqf Management Problems

- a. The lack of cooperations and coordinations between governments, Islamic organizations, syariah financial institutions and educational institutions in order to promote cash waqf as a solution for increasing the welfare of a better life.
- b. Non-intensive socialization and educational activities resulted in many Muslim communities who still do not know the new dimension of waqf, namely cash waqf. The growing opinion in the society still defined waqf in a narrow scope, which is limited only to lands and buildings.
- c. Inadequate information technology infrastructure to facilitate to public in accessing information and conducting cash waqf transactions easily.
- d. The level of public trust is still very low on the cash waqf management, it may be caused by the many acts of corruption.

Based on the issues and topics about the potential of waqf in Indonesia, researchers initially aim to analyze the potential of waqf nationally, but due to the limitations data of cash waqf, researchers change the level of coverage into regional level. Furthermore, this research discusses and explores the potential of cash waqf in Special Region of Yogyakarta (DIY) supported by empirical quantitative and qualitative research methods.

According to the Chairman of the Board of Mosques Indonesia (DMI) published in the Daily *Republika* Yogyakarta, Mr. Muhammad, the potential of cash waqf in DIY estimated at Rp 25.38 billion per year. The potential comes from empowering 7,000 mosques in Yogyakarta. Therefore the researchers give so much attention to DIY to be the object and scope in this study. On the other hand, researchers positioned and placed great expectations on DIY as best practice or pilot for other regions in Indonesia. This is further strengthened by the population data from Badan Administrasi regional DIY, 92.5% or about 3.357.339 people in DIY are Muslims.

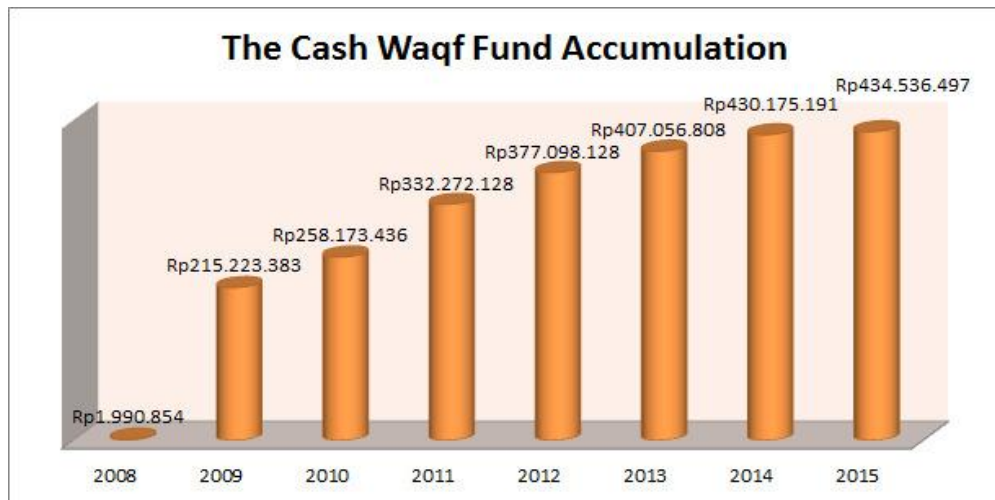


Figure 1
The Cash Waqf Fund Accumulation
Source: BWU/T MUI DIY

Based on the management of cash waqf through Islamic financial institutions (LKS-PWU), the researcher believes that DIY can be a source of reference and a role model for the development of cash waqf in Indonesia. Moreover, the results of this research are expected to motivate another areas to develop and establish cash waqf as a pioneer of the revival of Islamic financial instruments through the utilization of Islamic social funds.



Figure 2
The Numbers of Waqif Progress
Source: BWU/T MUI DIY

Research Objectives

Researchers focus on the three main research objectives, including:

1. Researchers forecast and predict the potential of raising funds cash waqf up to the year 2021 in DIY based on the cash waqf database.
2. Researchers simulate the nominal value of ideal cash waqf that can be collected from every household in DIY through statistical approach after completing the forecasting.

Researchers propose an integrated cash waqf management system model to achieve the expected target of cash waqf accumulation.

Literature Review

Cash Waqf As Instrument of Islamic Finance

Historically, cash waqf was first introduced in the Ottoman era in Egypt. The cash waqf or money waqf was actually introduced in Indonesia in 2001. According to Rasyid (2016), cash waqf is being developed when economists and sharia finance experts find the abundance of waqf assets in Indonesia still not empowered and managed optimally. Accumulation of cash waqf is expected to become one of the social funds instruments that can empower the potential wealth of existing waqf. Furthermore, in 2002 the Indonesian Council of Ulama (MUI) issued a fatwa that the cash waqf is *jawaz* or allowed.

Cash waqf is a new dimension of the waqf asset accumulation system. So far, the wider community may have only a narrow understanding of the waqf system, most people assume the assets that can be represented are identical with immovable objects such as land and buildings. In addition, some people also argue that waqf concept requires the person must be rich and has land first.

In his article, Rasyid (2016) describes the cash waqf is done by a person, group of people, institutions or legal entities in cash. The amount of guaranteed cash waqf will always be intact, not for sale, granted and / or inherited. This explanation is according to Law no. 41 Year 2004, waqif can deliver waqf moving objects in the form of cash money through sharia financial institutions that appointed by the minister. This law is a evidence of a sense of social justice, because waqf is a gift to be given for common good (Abdullah and Aristoni, 2015).

Md Saad and Anuar (2009) in their research explore new funding sources for Islamic microfinance. Cash waqf can be a new source of financing where an individual with an excess of wealth donates to people in need. Md Saad and Anuar (2009) added that the collection and distribution of cash waqf can be done by the Islamic Micro Finance Institution (IMFI). IMFI's task is to select the beneficiaries (*mauquf alaih*) who are entitled to receive the cash waqf. Nadzir can be grouped into two categories: the poor and small businesses that require venture capital. Based on the classification, the loan form is also different, IMFI will apply the profit sharing system (*mudharabah*) or cost plus system (*murabahah*) to the small business actors. For the poors, IMFI uses the *qard al-hasan* principle to meet their basic needs.

Cash Waqf aims to raise the eternal funds sourced from the ummah, then used for the greatest importance of da'wah and community. The donated fund of waqf invested by *nadzir* into a halal and productive business portfolio. Returns of the investment can be empowered for the development of people and the nation as a whole (Haryanto, 2012).

In Indonesia, the cash waqf is the intens discussion topics and gained special attention from the government. One of the factors that make cash waqf growing is the level of flexibility both in the aspect of cash waqf deposit and aspect of waqf fund distribution to the people. Currently, the government through the Ministry of Religious Affairs and the Indonesia Waqf Board (BWI) is preparing and formulating strategic policies to increase the collection of cash waqf. The cash waqf provides an opportunity and convenience to the community to represent without waiting to become rich. On the other hand, the collected funds can also be distributed to fund microfinance projects. The cash waqf is expected to grow into an Islamic financial instrument that can stimulate economic growth and minimize the practice of *riba* in Indonesia.

Cash Waqf Development Across Countries

Prof. Mannan socializes cash waqf in Bangladesh through Social Islami Bank Ltd. (SIBL). The obligation of SIBL is to publish the certificate of cash waqf for raising funds from rich people and distribute it to the poor (Masyita *et al.*, 2005). In addition, there is an organization that is specifically formed to support towards the development of cash waqf, known as Social Science Institute (SSI). SSI's task is not only to collect public funds and zakah, but also to collect and raise funds for cash waqf. Moreover, the accumulated fund was invested through the Islamic Bank with the principal or *mudharabah* principle. The profits from these investments are then channeled to meet SSI's targets in programs that bring people prosperity. Mohsin (2009) mentions several waqf institutions such as Syria, Egypt, India, Singapore and Malaysia to adopt cash waqf schemes because it has great potential and benefits.

A waqf will be influenced by the level of religiosity and trust. The results of this study also prove that trust has a very crucial role in determining cash waqf. Sargeant and Lee (2004) also mention that trust is the basis of public goodwill. If people don't trust to the social funds management then gradually their desire to support the development of cash waqf will be reduced.

The implementation of cash waqf as an instrument of socio-economic development to solve the problems and social challenges faced by Nigerians in general and especially Nigerian Muslims. In order to raise public awareness delivering cash waqf, waqf management in Nigeria should educate Nigerians about the importance of waqf to society and the country as a whole. As a result, the implementation of cash waqf as a modern instrument for socio-economic development in Nigeria is considered capable to solve problems and difficult circumstances for the poor. Systematically, cash waqf will significantly reduce poverty among Nigerian Muslims (Amuda *et al.*, 2015).

Cash waqf has an important role in alleviating poverty. The emergence of cash waqf in Malaysia remains different in formulating strategies that can be used improving the quality of life. One of the factors that led to the development of cash waqf is the increasing awareness of the community. The success of this course can not be separated from the synergy built by the government, private parties and a number of waqf institutions that continuously socialize the benefit of cash waqf (Saifuddin *et al.*, 2014).

The Role of Cash Waqf In Eradicating Poverty And Increasing Social Welfare

Kahf (1998) described the importance of waqf for socio-economic improvement which concentrated in 3 sectors of education, health and environmental welfare. He said that health services are an important part of the development cash waqf. The returns of cash waqf are allocated to fund hospitals construction, patients and medicines. Cash waqf is not only a source of finance to small communities, but cash waqf can improve the existing management system of waqfs to be more effective and efficient in accordance with the principles and sharia rules (Chowdhury *et al.*, 2011). Osman *et al.*, (2016) asserted that cash waqf is perceived as a source of funding in Islamic economics. Cash waqf can serve as a financial tool for the benefit of Muslims. The results obtained from cash waqf can be used to finance public-interest projects such as construction school buildings, mosques, bridges and providing food for the needy (Cizakca, 2000).

Waqf has a very important role in Islamic civilization and become one of the instruments that combine generosity and self-refinement to Allah SWT. In principle, the waqf system helps children who are unable to get education in formal school. The opportunity for every individual to acquire knowledge is the ultimate goal for every Muslim in order to make an important criterion for the dynamic change in the social economy of the Muslim community. In particular, this condition has a positive effect on Muslim societies where wealth and differences

between poor and rich can be gradually eliminated in the social environment (Pitchay *et al.*, 2014).

In carrying out the role of cash waqf as an alternative mechanism of economic redistribution, there are at least two decisive roles in its realization. The first role, the state has a crucial role. The state may surrender "idle land" and legally as a "waqf" or cash disbursement as "cash waqf" to the economically weak or strong party having the potential to run a profitable enterprises so as a result can absorb the new employee. The second role, the state/ government creates or strengthens the waqf system by fostering, monitoring, and recording the income and expenditure of the waqf system (Arif, 2010).

Rozalinda (2010) asserted that waqf system is well managed, then people's life will increase. During this time, the allocation of waqf in Indonesia is less aimed at empowerment aspect and economic strengthening of people. Conversely, waqf tends to be limited only for worship, education and funerary activities only. Ideally, waqf empowerment should be directed to productive programs. The socio-economic problems facing the nation today, such as the high level of poverty can be solved through the empowerment and management of cash waqf. Further Rozalinda (2015) in his book entitled "Productive Endowment Management" explains that the management and effectiveness of productive waqf can be an investment for poverty alleviation, improving education and increasing prosperity and welfare of the people.

Cash waqf management is expected to be one of the alternative instruments to implement poverty eradication program in Indonesia. These programs require substantial funds where not all of the funds can be provided by the government. Therefore, initiatives to propose social fund sources to implement poverty alleviation programs are urgently needed. In the socio-economic concept of Islam, there is source of social fund that is economically and politically free of charge, namely cash waqf (Masyita *et al.*, 2005).

(Shahimi *et al.*, 2013) proves that the potential of cash waqf eradicates poverty in Malaysia. Cash waqf is able to save 50% of Muslims from the threat of poverty during 30 years. This fact is proven by estimating the success of small businesses, the number of cash waqf recipients, and the increasing number of people who can access education and health services. A summary of literature studies on the impact of the implementation and management of cash waqf in poverty alleviating presented in the following table:

Table 1
The Related Previous Study of Cash Waqf Implementations
Toward Poverty Alleviation Programs

Number	Authors	Year	Title	Scope of Study
1	Kahf	1998	Financing The Development of Awqaf Property	Malaysia
2	Cizakca	2000	A History Of Philanthropic Foundations: The Islamic World From The Seventh Century To The Present	Islamic Worldwide
3	Masyita et al.,	2005	A Dynamic Model for Cash Waqf Management as One of The Alternative Instruments for The Poverty Alleviation in Indonesia	Indonesia
4	Arif	2010	Wakaf Tunai Sebagai Alternatif	Indonesia

			Mekanisme Redistribusi Keuangan Islam	
5	Rozalinda	2010	Pengelolaan Wakaf Uang Di Indonesia: Studi Kasus Pada Tabung Wakaf Indonesia (TWI)	Indonesia
6	Chowdhury et al.,	2011	Economics of Cash Waqf Management in Malaysia: A Proposed Cash Waqf Model For Practitioners And Future Researchers	Malaysia
7	Shahimi, et al.	2013	Potential Of Cash Waqf For Poverty Alleviation in Malaysia: A System Dynamics Approach	Malaysia
8	Pitchay et al.,	2014	Priority of Waqf Development among Malaysian Cash Waqf Donors: An AHP Approach	Malaysia
9	Osman et al.,	2016	Factor Influencing Cash Waqf Giving Behavior: A Revised Theory Of Planned Behavior	Malaysia

Methodology

There are some systematic steps or procedures that must be implemented by researchers to achieve the objectives of study.

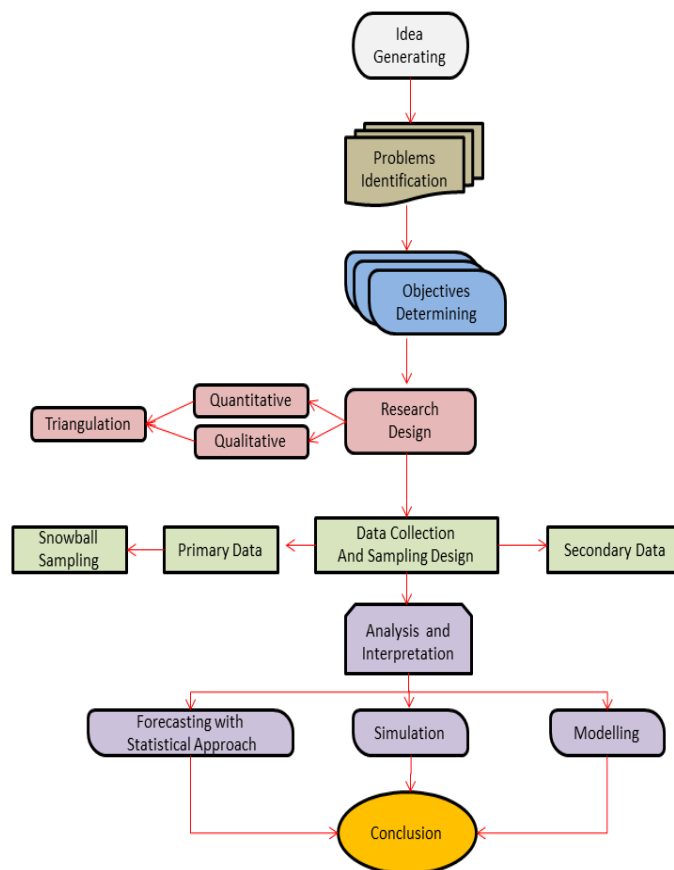


Figure 3

Research Schemes

Data

This study examines waqf fund collected by LKS-PWU (BPD Syariah Yogyakarta). The collected data is only limited for eight years, starting from 2008 to 2015. Here is a table of waqf/year and accumulation of cash waqf in LKS-PWU BPD Syariah Yogyakarta.

Table 2
Cash Waqf

Year	Waqf /year	Cash Waqf Accumulation/year
2008	1990854	1990854
2009	215223383	215223383
2010	258173436	258173436
2011	332272128	332272128
2012	377098128	377098128
2013	407056808	407056808
2014	430175191	430175191
2015	434536497	434536497

Source: LKS-PWU BPD Syariah Yogyakarta 2017

In addition to the cash waqf, researchers add the Muslim population data of DIY as a matter of simulation of the cash waqf. This population data is the latest data from the Department of Population Regional DIY, namely data of population classified by religion in second semester 2016.

Table 3

Classification of Population According to Religion

Region	Islam	Christian	Catholic	Hindu	Buddha	Konghucu	others	TOTAL
Kulon Progo	420.135	5.933	18.538	26	643	1	17	445.293
Bantul	890.211	12.103	25.354	764	217	6	21	928.676
Gunung Kidul	733.333	13.496	13.641	1.116	414	8	444	762.452
Sleman	972.249	32.254	72.028	1.156	741	758	24	1.079.210
Kota Yogyakarta	341.411	26.576	42.472	523	1.304	30	15	412.331
Total	3.357.339	90.362	172.033	3.585	3.319	803	521	3.627.962

Source: Department of Population Regional DIY

In the simulation of cash waqf funds, researchers also use data distribution in percentage of average expenditure per capita DIY. Data from Badan Pusat Statistik still has not classified the population by religion. Therefore, the researchers synchronize the Islamic population in DIY which amounted to 92.5% with the average expenditure distribution per capita society.

Table 4

Average per Capita Monthly Expenditure for Foods and Non Foods Monthly per Capita Expenditure Class in D.I. Yogyakarta, 2015

Monthly per Capita Expenditure Class	Household		Expenditure for Foods		Expenditure for Non Foods	
	Total	%	Total	%	Total	%
< 100 000	88	0,01	60 429	66,12	30 967	33,88
100 000 – 149 999	1 854	0,17	87 787	65,28	46 700	34,72
150 000 – 199 999	11 460	1,02	119 464	66,06	61 387	33,94
200 000 – 299 999	89 161	7,96	156 291	60,78	100 862	39,22
300 000 – 499 999	271 514	24,23	240 068	60,39	157 486	39,61
500 000 – 749 999	227 795	20,33	330 741	53,44	288 122	46,56
750 000 – 999 999	143 741	12,83	410 738	47,46	454 613	52,54
1 000 000 +	374 864	33,46	579 943	28,88	1 428 508	71,12
Total	1 120 477	100	365 012	39,31	563 591	60,69

Source: BPS DIY 2017

Method of Estimation Technique

Following Cooper & Schindler's research method (2011), this study merging qualitative and quantitative methodologies (triangulation). Triangulation is the term used to describe the combining of several qualitative with quantitative methods. Qualitative studies may be combined with quantitative ones to increase the perceived quality of the research. In qualitative method, researchers use snowball sampling which is part of non probability sampling technique. Snowball sampling is a nonrandom sample in which the researchers begin with one case, and then based on information about interrelationships from that case, identify other cases (Neuman, 2006).

The researchers employ three steps methods; first, a study analysis to forecast the progress of waqf funds that will be received by DIY in the next six periods. Secondly, researchers simulate cash waqf funds that have been predicted received by DIY to Muslim community in DIY. This simulation will see how should the cash waqf fund distribution that can be realized by DIY society to support government programs in strengthening social pillars. The thirdly step is researchers will create an integrated model of cash waqf that can be applied particularly in DIY, and Indonesia in general based on qualitative study.

The Moving Average Model Forecast

The Moving Average Model is the most possible statistic tools that take a data set with variation and create another data set with less variation. The Moving Average Model takes the average of several periods of data, this model is used when there is no evidence of a trend or seasonal pattern.

The Moving Average Model routines may be designed to remove the seasonal and random noise variation within a time series. If the moving average routine is used repeatedly on

each newly-generated series, it may succeed in removing most of any cyclical variation present. What is left of the original series after early smoothings to remove seasonal and random or irregular components is a successor series retaining some combinations of trend and cyclical behavior. If no trend or cyclical behavior are present in the time series, the smoothings may leave a successor series which plots as a nearly horizontal line against time on the horizontal axis. Assuming the presence of trend and cyclical behavior in the original series, the moving average process provides a method of isolating it.

The smoothing effect of the moving average model provides for a “cleaner” data set, which may or may not help in estimating the future level of a variable.

The formula for the Moving Average Model is below:

$$MA_n = \frac{\sum_{i=1}^n D_i}{n}$$

Where:

n= number of periods in the moving average

Di= demand in period

Simulation of Cash Waqf

This simulation starts from the results of cash waqf forecast for the next six periods. The waqf fund predicted by DIY is compared with the distribution of DIY expenditure. This simulation will produce a waqf fund framework that should be achieved by the DIY. Here is a simulation formula for cash waqf DIY proposed by Anggari & Izra (2017).

Cash Waqf Simulation (CWS)

$$CWS = \left\{ \left(\frac{\text{household expenditure}}{\text{total expenditure}} \times \text{cash waqf} \right) : \text{total house hold} \right\}$$

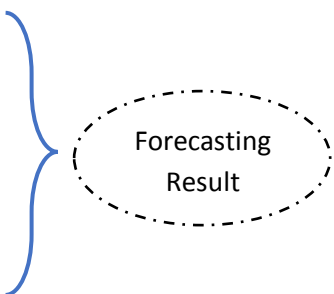
Result & Analysis

The Moving Average Model Forecast

Based on cash waqf data, researchers forecast against the progres of cash waqf within six periods ahead. This Forecasting used the weighted moving average method. This method is one of the techniques used in providing short-term forecasting. In this method, past values are used to predict future values. Researchers use SPSS 19 (Weighted Moving Average Method) to forecast data, then the next six periods, the number of cash waqf received per year is as follows.

Table 5
Result of Cash Waqf Forecasting

Year	Total Waqf /year	Accumulation/year
2008	1990854	1990854,00
2009	215223383	215223383,00
2010	258173436	258173436,00
2011	332272128	332272128,00
2012	377098128	377098128,00
2013	407056808	407056808,00
2014	430175191	430175191,00
2015	434536497	434536497,00
2016	86057812	520594309,00
2017	110093758	630688067,00
2018	53958248,33	684646315,33
2019	49627790,67	734274106,00
2020	32634354,33	766908460,33
2021	19146123	786054583,33



According to forecast results based on moving average method, the number of cash waqf that will be received is still fluctuate from year to year. Until 2021 or the sixth period of forecasting, the amount of cash waqf that will be received by the Special Province of Yogyakarta is Rp. 786.054.583,33.

This method will work optimally if the processed data is available in large quantities. Unfortunately, the cash waqf data that we obtained from sharia financial institutions (LKS-PWU) is limited to 8 periods only. Thus, the limitation of data causing the potential bias and data trend as the original data before.

Simulation of Cash Waqf

From the result of accumulation cash waqf above, researchers simulates the target of accumulations cash waqf that will be achieved in accordance with the expenditure of DIY. The simulation will be based on the percentage of expenditure distribution and intends to detect early cash waqf tendencies from the public.

Table 6
Expenditure Distribution

Monthly per Capita Expenditure Class (Rp)	Household	Muslim's Household	Percentage (%)
< 100 000	88	81	0,01
100 000 – 149 999	1 854	1715	0,17
150 000 – 199 999	11 460	10600	1,02
200 000 – 299 999	89 161	82473	7,96
300 000 – 499 999	271 514	251151	24,23
500 000 – 749 999	227 795	210710	20,33
750 000 – 999 999	143 741	132960	12,83
1 000 000 +	374 864	346749	33,46
Total	1 120 477	1036439	100

Based on the simulation result, the cash waqf nominal must be collected to reach the target of year 2018 is Rp. 684.646.315,33. Households with expenditure more than Rp. 1000.000 / month, at least spend cash waqf Rp. 66.100. Households with expenditure of Rp. 750,000-Rp. 999,999, at least spend waqf only Rp. 66,000, as well as other households. If all Muslim households set some of their expenditure allocations for waqf, reaching the target of Rp. 684.646.315,33 is not a difficult matter. DIY has the distribution of the community with expenditure > Rp. 1000,000 larger than another, reaching 33% of the Muslim population. This shows that the DIY community is very capable to allocating cash waqf which is not more than 10% of total expenditure per month for one year waqf.

Qualitative Study Results

In this study, researchers conducted in-depth interviews to several informants who directly involved in collection and management of cash waqf. The informants are government, *nadzir*, beneficiaries (*mauquf alaih*) and academics.

Head of Waqf Empowerment of the Ministry of Religious Affairs Regional DIY

Actually, waqf is one of Muslim's social problems solver such as poverty, hunger and unemployment. As government, the Ministry of Religious Affairs Regional DIY, wants to give an explanation for society that waqf at this time no need to wait until rich or have a huge land to be represented. The new dimension which is introduced to public is cash waqf. Current waqf era is cash waqf, no land waqf anymore.

These are some strategic to increase the potential of cash waqf in DIY. First, the government cooperates massively with several institutions such as Indonesian Waqf Board (BWI) both at national and regional level, the Indonesian Ulama Council (MUI) DIY, Yayasan Wakaf Indonesia, Islamic Society Organization, Sharia Financial Institution (LKS-PWU) and universities.

Second, the government socialize and educate to society about Law no. 41 Year 2004 which explain waqf property and waqf property allocation through social programs such as forums of recitation, seminars and scientific meetings. The government also has prepared ambassadors of waqf that can help provide information and clarification about waqf to society. The established waqf ambassadors will be selected based on qualifications.

Third, government create waqf-themed public service advertisements in newspapers and published to social media. Information and short message waqf also initiated in some public service facilities. This ad is meant to cultivate a sense of empathy and raise awareness society.

Fourth, another strategic plan that the government wants to build a research center dedicated to observing, discussing and analyzing the headway of waqf in Indonesia and in other Muslim countries.

Fifth, the most important aspect is building an information technology infrastructure. Currently the government has a Waqf Information System known by SIWAK, it is integrated with several institutions such as BWI, MUI and Sharia Financial Institutions. This system can be accessed online, it will be easier for people to see the expansion of waqf funds in Indonesia. Not only that, the provision of information systems is intended to increase public confidence in management of waqf. The society want waqf managed by an institution legally appointed by law and work professionally and transparently. The progress of information technology and systems is a long-term government program to strengthen the Islamic financial inclusion system which has implications for national financial stability.

Cash Waqf Board Indonesian Ulema Council Regional DIY

Cash Waqf Board Indonesian Ulema Council Regional DIY was established in 2008, with SK MUI DIY number: A-177 / MUI-DIY / 2008, January 14th, 2008, and the one of independent institution under MUI DIY. Cash Waqf Board Indonesian Ulema Council Regional DIY is engaged in Islamiyyah dakwah with the aim to improving the welfare of the community through the management of cash waqf. Some of the activities are counseling cash waqf, managing cash waqf and channeling the waqf funds people who need it.

Now, Cash Waqf Board Indonesian Ulema Council Regional DIY collaborate with BPD DIY, based on Cooperation Agreement no. 0202 / OM 004 of 2009 on cash waqf Program. BPD DIY Syariah gives a service of cash waqf in their branch.

Cash Waqf answered challenges that the potential of waqf is still not optimal, poverty that has not been resolved and the number of unemployed still high. In addition of that problems, the cash waqf has many benefits such as, empowering economy, free health services, educational scholarships and other programs that are oriented towards welfare.

There are two main activities in the management of cash waqf, first, the collection activities and second, distribution activities. Cash waqf can be categorized into two forms, permanent waqf and temporary waqf. Permanent Waqf means that waqif inherit their property permanently, and the temporary waqf provides a new view that waqif can endow the waqf property for a certain time.

The distribution of waqf benefit funds can be classified into two types of distribution: productive and social. productive form distribution such as capital assistance to the community micro small productive entrepreneurs through the program Loans Productive Without Collateral and Cost (PROTAB), Grant Program Flourish. While the distribution in the form of social can be allocated for education and health.

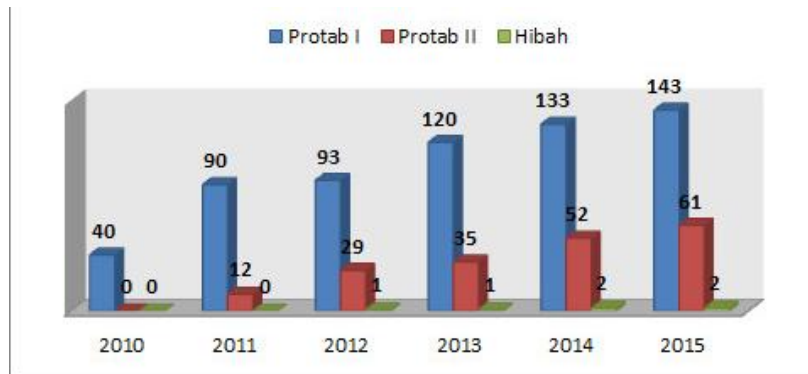


Figure 4
The Number of Cash Waqf Beneficiaries
 Source: Yazid Affandi (Academics)

Mr. Yazid Affandi mentioned some problems from cash waqf implementation and proposed the creative thinking to overcome the problems. Firstly, socialization and education has not been comprehensive so that people do not understand the importance of cash waqf. Secondly, the payment system of cash waqf in Indonesia based on Official Assessment System (OAS) where *Waqif* should go to Islamic Financial Institutions directly. This system become one of reasons causing the potential of cash waqf can't be rapidly collected. Thirdly, *Nadzir* as cash waqf manager should have creativity and innovation to manage cash waqf assets. Therefore, cash waqf assets will grow and provide social impact to improve the stability of Indonesia economy. fourthly, the accumulation of cash waqf is still constrained by society stigma that tend to be conservative thought. Indonesian people still assume that waqf objects only represented to fixed assets such as lands and buildings. The stigma limits the person who wants to conduct waqf because their assumptions conclude that waqf especially for rich people.

Researchers conducted In Depth Interview (IDI) by asking stakeholders of cash waqf one by one including government, manager (*nadzir*) and academics to get clear informations and deep understandings to all problems and challenges faced by cash waqf management. Furthermore, researchers collected productive programs, alternative solutions and creative strategies obtained from stakeholders to propose the new model in order to increase of cash waqf fund in Indonesia. The advantage of our proposed model is supporting synergies and cooperations among stakeholders for the creation of right decision making. Moreover, the appropriate implementations of this model realize to the formulation of Good Cash Waqf Management Governance (GCWMG). The model divided to five aspects GCWMG, consists of Responsibility, Flexibility, Accessibility, Transparency and Legitimacy. Finally, researchers launch the model called by The New Integrated Model Of Cash Waqf Information System.

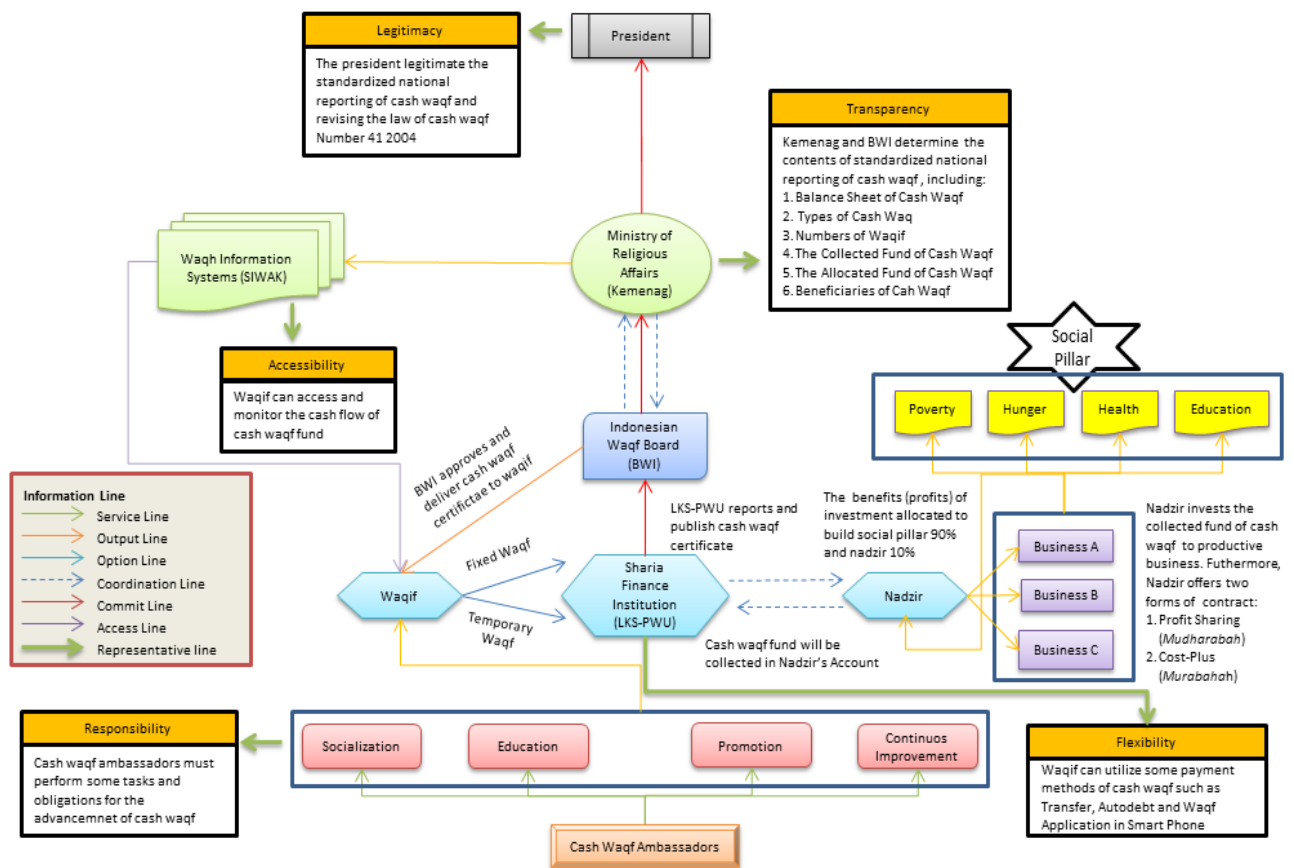


Figure 5
New Integrated Model Of Cash Waqf Information System

Conclusion

The result of this study, has successfully answered, first how the progress of cash waqf, second, how should the support of society, government, and financial institutions to achieve target waqf. Based on the forecasting moving average model, it can be seen that the acquisition of waqf in some future period is still very fluctuate following the trend of waqf fund in the previous period.

In the simulation of cash waqf distribution based on expenditure, it can be seen that to reach the target waqf one year, for example year 2018, that is equal to Rp. 684,646,315.33, each household only issued an average of Rp. 60,000 to Rp. 80,000 per year. If all Muslim societies have realized the importance of cash waqf, then the potential cash waqf will be maximized and the flow of productive profit can be distributed to strengthen the social pillars of the country.

Recomendations

Cash waqf has enormous potential as a problem solver for social and economic problems. The potential of cash waqf should receive great attention from governments, financial institutions and the public. As already explain in the integrated cash waqf model, governments with distribution and regulatory functions should maximize the socialization and education of cash waqf to the wider community and make cash waqf the main concern of the community, as

well as proclaiming tax programs or tax amnesties. The positive impact of Cash waqf is really incredible if its revenue can be maximized.

Benefits from productive cash waqf can be for educational scholarships, health, and provide capital assistance to communities for increased productivity.

As an Islamic financial institution (especially, BPD-DIY), to be able to coordinate with the government in accommodating the cash waqf reachable (easy-to-understand system, unconfigured process and clarity on deed of pledge of waqf and its allocation) by society. As a society also expected to be more proactive and aware of this waqf. In addition, research institutes should be focusing on waqf and continue to extend waqf, so that this waqf becomes a common discussion and familiar as other sources of income.

Indonesian Waqf Board (BWI), should publish waqf data per year. this is deemed very important because as a government agency it must report waqf funds that have been accepted as a form of reporting agencies to the public. . In the future, it is hoped that data collection of waqf funds can be more accountable and accessible for all circles. Cash waqf data is very important because as a reference progress waqf nationally.

Reserch Limitation

From the point of view of the econometrical approach, the data collection of waqf is still very minimum. Due to this limitation, it is possible that the forecasting done is still very far from the ideal model that should be displayed. Actually, cash waqf data has not been well documented because it is still very new in Indonesia. Researchers do forecast this data purely to see how the progress of waqf in future periods.

References

- Amuda, Yusuff Jelili, Ahmad Hidayat, and Bin Buang. 2015. "The Application of Cash Waqf As an Instrument for Socio-Economic Development in Nigeria." *International Journal of Economics, Commerce and Management* III (5): 605–21.
- Arif, Syafrudin. 2010. *Wakaf Tunai Sebagai Alternatif Redistribusi Keuangan Islam. La Riba IV*.
- Chowdhury, S.R., Fahmi, M., & Ibrahim, M.F. 2011. "Economics of Cash Waqf Management in Malaysia: A Proposed Cash Waqf Model for Practitioners and Future Researchers." *African Journal of Business Management* 5.
- Cizakca, M. 2000. *A History of Philanthropic Foundations: The Islamic World From the Seventh Century to the Present*. Istanbul: Bogazici University Press.
- Cooper, D.R. & Schindler, P.S. 2011. *Business Research Methods*. Eleven. New York: Mc Graw - Hil International Edition.
- Dian Masyita, Muhammad Tasrif, and Abdi Suryadinata Telaga. 2005. "A Dynamic Model for Cash Waqf Management as One of the Alternative Instruments for the Poverty Alleviation in Indonesia." *The 23rd International Conference of The System Dynamics Society Massachusetts Institute of Technology (MIT)*, 1–29. <http://www.kantakji.com/fiqh/files/wakf/b100.pdf>.
- Haryanto, Rudy. 2012. *Pengentasan Kemiskinan Melalui Pendekatan Wakaf Tunai. Al-Ihkam* 7.
- Junaidi, Abdullah dan Aristoni. 2015. "Wakaf Uang Sebagai Sistem Ekonomi Islam Yang Berkeadilan." *Ziswaf* 2 (1): 199–216.
- Kahf, Monzer. 1998. "Financing The Development of Awqaf Property." Malaysia, Kuala Lumpur.
- Khan, Foyasal. n.d. "Waqf-An-Islamic-Instrument-of-Poverty-Alleviation–Bangladesh-Perspective." *Thought on Economics* 22.
- Md Saad, N., and a. Anuar. 2009. "Cash Waqf and Islamic Microfinance: Untapped Economic Opportunities." *Islam and Civilisational Renewal (ICR)* 1 (2): 337–54.
- Mohsin, M. Ismail. 2009. *Cash Waqf A New Financial Product*. Kuala Lumpur: Prentice Hall.
- Neuman, W.L. 2006. *Social Research Methods*. Sixth. Boston: Pearson Education.
- Osman, Amirul Faiz, Mustafa Omar Mohammed, and Aiman Fadzil. 2016. "Factor Influencing Cash Waqf Giving Behavior: A Revised Theory of Planned Behavior." *Journal of Global Business and Social Entrepreneurship (GBSE)* 1 (2): 12–25. [http://gbse.com.my/isimarch16/GBSE 1\(2\) 12-25 \(March 2016\).pdf](http://gbse.com.my/isimarch16/GBSE 1(2) 12-25 (March 2016).pdf).
- Pitchay, Anwar Allah, Ahamed Kameel Mydin Meera, and Muhammad Yusuf Saleem. 2014. "Priority of Waqf Development among Malaysian Cash Waqf Donors : An AHP Approach." *Journal of Islamic Finance* 3 (1): 13–22. doi:2289-2117 (O) / 2289-2109 (P).
- Qaradawi, Yousuf Al. 2008. *Poverty Alleviation in Islam*. Dhaka, Bangladesh.: Central Shariah Board for Islamic Banks of Bangladesh. <http://www.csbib.org>.
- Rasyid, Abdul. 2016. "Menggali Potensi Wakaf Uang Dan Aset Wakaf Nasional." <http://business-law.binus.ac.id/2016/06/22/menggali-potensi-wakaf-uang-dan-aset-wakaf-nasional/>.
- Rozalinda. 2010. "Pengelolaan Wakaf Uang Di Indonesia: Studi Kasus Pada Tabung Wakaf Indonesia." Banjarmasin.
- . 2015. *Manajemen Wakaf Produktif*. Jakarta: Rajawali Pers.
- Saifuddin, Farhah, Saim Kayadibi, Refik Polat, Yahya Fidan, and Omer Kayadibi. 2014. "The Role of Cash Waqf in Poverty Alleviation: Case of Malaysia." *Kuala Lumpur International Business, Economics and Law Conference 4 (KLIBELA)* 1 (June): 272–89.
- Sargeant, A. and Lee, S. 2004. "Trust and Relationship Commitment In The United Kingdom Voluntary Sector: Determinants of Donor Behavior." *Psychology and Marketing* 21.
- Shahimi, Shahida, Mohd Umar Mohd Marzuki, and Zaini Embong. 2013. "Potential of Cash Waqf for Poverty Alleviation in Malaysia: A System Dynamics Approach." *Jurnal Ekonomi Malaysia* 47 (2): 149–63.