

## **Tackling Poverty: A Look At Cash Waqf**

Mohd Umar Mohd Marzuki  
Shahida Shahimi  
Abdul Ghafar Ismail  
Zaini Embong

### **ABSTRACT**

Poverty alleviation has always been one of the top agendas in Malaysia. On Friday, October 7<sup>th</sup> 2011, the Prime Minister of Malaysia presented the 2012 national budget to the cabinet. Set to make a difference in the next year, the budget focuses on the poverty alleviation and social welfare. For that, the government has allocated RM2.6 billion for its Social Safety Net program called “Bantuan Rakyat 1 Malaysia” that aims to improve the quality of life of the nation. This paper is thus written to offer possible alternative (theoretically at least) to solve the social problem of poverty. Cash waqf will specifically be analyzed in this paper as an alternative instrument that can overall improve the social welfare and reduce the poverty rate and at the same time, lessen the burden of the government. The paper is constructed by reviewing some current journals, government reports and other publications that revolve around the matter. In order to analyze the potential of cash waqf model in the dynamic system, the study is conducted using system dynamics methodology. The feedback nature of the whole system can be modeled and figures can be derived from the computer simulation. The simulated results seem to be promising as they show significant result in alleviating poverty by up to 50%. Apart from that, the amount that government can save is substantially significant to be discarded. Total savings can go over RM13 billion or an average of RM433 million a year over 30 years. Given the findings, the government can take into account the potential of cash waqf in formulating future policies. On top of that, the findings could prompt more research to be done in this particular area using the system dynamics methodology as it is believed that there are still a lot more that can be explored in this research field.

Keywords: Cash waqf, poverty alleviation, microfinance

### **INTRODUCTION**

Poverty is widely debated in the world today as it is an apparent problem in both developed and developing countries, let alone the underdeveloped. Government of Malaysia over 55 years of independence has contributed a lot in eradicating poverty but however in recent years, the poverty rate seems to be stagnating. Given the growing amount of public debt, there have been questions raised against the increasing commitment in terms of budget allocation from the government to combat poverty. Recently the government has allocated RM2.6 billion to be given out as direct aid to household with income less than RM3,000 a month.

The main objective of this paper is to study the alternative solutions to poverty alleviation other than the public policy by the government. The main focus is however to see how an instrument modeled using cash waqf as a source of fund can stand up against the other available alternative, namely microfinance institution. The study brings forward the potential that the model has in terms of how much poverty can be reduced and the amount of money can be saved by the government.

The outputs from the simulation seem to be convincing. Poverty can be reduced by almost half in over 30 years, government can save up to RM13 billion and over 500,000 employment opportunities could be created. Implementation of cash waqf model in Malaysia however, has a potential setback due to the legal environment. Therefore the results from this study is expected to capture the attention of the policy makers and legislators in paving ways to the actual implementation of the model. This study is hoped to prompt more research in this area particularly using the system dynamic approach.

The paper will start by reviewing some existing literatures on cash waqf and poverty alleviation. This paper will not be covering the basics of waqf and all the legal aspects of it. The discussion on legal issues of waqf in Malaysia has to be sidestepped in order to make room for the discussion on economical aspect of waqf. Next the methodology used in the study is presented. As system dynamics methodology in economic analysis is rather quite new, the section will start with the background of the system dynamics. The limitations in using system dynamics methodology will also be discussed. This however does not impair our findings because all the assumptions are made based

on other realistic proxies. After the research framework has been established, the findings of the study are discussed. Structure of the proposed cash waqf model will be deliberated thoroughly together with the details of the model/program implementation. Finally in the discussion and conclusion section, the significance of the findings to various groups will be put forward.

## LITERATURE REVIEW

Studies on religious instruments such as zakat and waqf and their effect on the economy, specifically on poverty alleviation have not been done much probably due to other “obvious” instruments that can be deployed, for cash handout and many others. Most studies on religious endowments can be attributed to Islamic endowment, a tool that has been around for centuries and can be dated to the Ottoman Empire era. The existing studies that have been reviewed mostly identify the various aspects of waqf and its implementation issues to explore different theoretical dimensions and practice of Waqf. Most governments in the world nowadays are faced with the crisis of insufficient fund to fully address the public welfare. Malaysian government for an instance allocates RM2.6 billion in its recent Social Safety Net Program called “Bantuan Rakyat 1 Malaysia”. Given the current outlook of Malaysia’s public debt, the effectiveness of the program is being debated with skepticism.

In reviewing the relevant literatures, the focus is on discovering the potential contributions that Waqf (cash waqf specifically) can have on the economy. The review would cover the history of Waqf and the evolution of cash waqf, some proposed waqf models, the potentials of waqf, and finally the use of computer simulation in modeling an effective waqf structure for the economy.

While most of Waqf created are real estate, the cash Waqf dates back to as early as the turn of first century of *Hijrah* (Ahmed, 2007). According to Cizakca (2004), during the Ottoman period, cash Waqf was used as a source of microfinance. Wealthy people would generously set up a charitable cash endowment fund that was then be used to give out free lending to the beneficiaries. In return, the ownership of the borrowers’ houses is exchanged as collateral. However, the borrowers were allowed to continue to stay in them but with a fixed rental fee. Once the principal has been returned, the ownership of the houses was reverted back. Recently, there have been attempts to revive cash Waqf as a social instrument. Professor Mannan tried to socialize cash waqf in Bangladesh through Social Investment Bank Limited (SIBL). SIBL issues Cash Waqf Certificates to collect funds from the rich and distributes gains of the managed funds to the poor (Masyita, Tasrf and Telaga, 2000). Although the study on the implication of such instrument is barely noticeable, there are however several studies that try to analyze the cash waqf framework that has been introduced and consequently try to export it outside of Bangladesh.

Most of the studies of the contemporary cash waqf refer back to the Cash Waqf Certificate introduced by Social Islamic Bank Limited in Bangladesh. Mannan (1998) had summarized the objectives of Cash Waqf Certificate concisely as;

1. To equip banks and other Waqf management intuitions with Cash Waqf Certificate
2. To help collect social savings through Cash Waqf Certificate (cash Waqf certification can be done in the name of other family member to strengthen family integration among rich families).
3. To help transform the collected social savings to social capital, as well as to help develop social capital market.
4. To increase social investment
5. To increase rich communities’ awareness on their responsibility for social development in their environment
6. To stimulate integration between social security and social welfare.

Based on these concise objectives, several cash waqf models have been introduced (at least theoretically) to further integrate the cash waqf into the economy and society in general. Tohirin (2010) suggested matching cash waqf institutions with those that need them. In this context, he suggested funds to be channeled to Small and Medium Enterprise (SME) with prospective business ventures but lack of capital through profit and loss sharing mechanism. The proceeds of this partnership could later to be utilized towards the benefits of the beneficiaries. Ahmed (2007) also proposed an almost similar model of cash Waqf utilization with cash Waqf institutions such as Microfinance Institutions (MFI’s) lending out money to the “un-bankable”<sup>1</sup>. The profit and loss sharing mechanism in utilizing the cash Waqf fund is however existed only in theory. Cizakca (1998) urged for Imam Zufar’s *fatwa* back in the eight century, that the corpus of the cash Waqf should be invested through *mudarabah* and the return

---

<sup>1</sup> Un-bankable is a banking term that refers to those people with low credit score.

be used for the original purpose of the Waqf. This however did not materialised. *Mudarabah* doesn't find its place in the practical world mainly due to its risky nature and span over a long period of time.

In contrary to investment through *mudarabah*, Lahasna (2010) suggested cash Waqf fund to be invested in debt financing (low risk investment: *murabahah*, *ijarah*, *istisna*, BBA) by Small and Medium Industries Development Corporation in Malaysia. Masyita et al. (2005) however had a different idea. According to them, given the economies of scale, Waqf institutions should be centralized in order for funds to be able to generate maximum return and be distributed at the utmost effectiveness.

The studies on Waqf are considered new if compared to the studies on Zakat although both are some types of charity in Islam. The recent interest in Waqf studies can be attributed to surveys on Waqf estates that were conducted throughout Muslim countries. The first land survey in Egypt was conducted during Muhammad Ali's rule. The survey indicated that 600,000 acres of land out of a total of 2.5 million acres of cultivable land were *awqaf*. Most of these *awqaf* were for mosques and educational institutions and a great chunk was for al-Azhar, the infamous university (Ahmed, 2007). However, the growth of Waqf contribution has stagnated in recent time. In this century, population has increased in enormous number but real property has not augmented. Consequently, not many Muslims get the chance to participate in Waqf endowment. Not having property is however not the only reason for lack of participation in Waqf endowment. There is also a wrong perception among Muslims that the Waqf endowment can only be in the form of land and not cash (Chowdury et al., 2011). It can be seen that the traditional endowment of lands or other physical properties has lost its relevance in the modern days. Therefore many studies have been conducted to highlight the issue pertaining to traditional Waqf as a basis of discussion on the potentials that the newly popularized cash Waqf might have in the modern world.

## RESEARCH METHODOLOGY

This research is conducted mainly using system dynamics methodology as it attempts to incorporate the dynamic feedback system, in which various variables change simultaneously as time progresses. System dynamics is a computer aided approach to policy analysis and design. It applies to dynamic problems arising in complex social, managerial, economic or ecological systems – literally any dynamic systems characterized by interdependence, mutual interaction, information feedback, and circular causality. This is rather important as the study intends to simulate and analyze the behavior of Malaysian economy given the addition of cash waqf. By using computer simulation, the expected outcome of the cash waqf on several variables can be studied under several different assumptions.

The data that is used in the study is mostly derived from primary and secondary data. Some literature reviews are done regarding system dynamics as a methodology to study the impact of cash waqf on the economy. Existing theoretical models of cash waqf are incorporated into the cash waqf model that is presented in this study later. Since there was no similar study preceding the research in Malaysia, some assumptions had to be done. However, these assumptions were logical in nature as they were extrapolated or estimated from trustworthy data. The most important data that was assumed in this research is the collection rate of cash waqf.

This research focuses on the potential that waqf (cash specifically) in boosting the economy in terms of unemployment reduction and poverty alleviation. As we know, the unemployment and poverty problems are complicated in nature as they need multidiscipline knowledge to formulate and figure out the solutions. With this research, we want to initiate the effort to explore cash waqf more by making an early design of poverty alleviation program in the financial viewpoint using system dynamics modeling.

The study however would not cover the issue of potential waqf mismanagement. Cash waqf fund was assumed to be managed at the utmost efficiency and credibility. For the sake of not losing the focus of this research, the management problems that waqf management could be argued to have is left out for different study. Also, waqf or cash waqf specifically will not be discussed thoroughly through the Islamic jurisprudence perspective due to the nature of this paper. However, some basics on waqf from the economic view will be presented as simple and easy to be understood as possible in order to reach more audience.

## FINDINGS

Studies regarding poverty alleviation mostly end up discussing the effectiveness of micro-financing in curing this social problem. Microfinance has been extensively studied over the past 10 to 15 years and the resulting literatures are vastly available now. The results have displayed the positive impacts that microfinance has brought into the playing field of poverty alleviation.

Khandker (2001) brought the result of household survey in 1991/1992 and the result from the follow up of the same survey in 1998/1999 in Bangladesh that clearly have shown how microfinance participants do better than non-participants in both 91/92 and 98/99 in per capita income, per capita expenditure and household net worth. Microfinance in Bangladesh, albeit some might argue do not play a significant role in poverty alleviation, still manages to smooth the income fluctuation among the poor in Bangladesh. Backing this finding, Robinson (2001) emphasizes that among the economically active poor of the developing world, there is strong demand for small-scale commercial financial services – for both credit and savings. Where available, these and other financial services help low income people improve household and enterprise management, increase productivity, smooth income flows and consumption cost, enlarge and diversify their microbusiness and increase their incomes.

Another similar study pertaining to the positive effect that microfinance brings can be referred to Remenyi et al. (2000). According to them, the significant higher household income of families with access to credit compared to households without access to credit can be attributed to microfinance. For an example, in Indonesia, a 12.9 percent annual average rise in income from borrowers was observed while only 3 percent rise was reported from non-borrowers. Remenyi (2000) again noted that, in Bangladesh, a 29.3 percent annual average rise in income was recorded and 22 percent annual average rise in income from non-borrowers. Sri Lanka recorded a 15.6 and 9 percent income rise in borrowers and non-borrowers respectively. Finally in the case of India, 46 percent annual average rise in income was reported among borrowers with only 24 percent reported from non-borrowers.

Taking note that there are several factors that can be attributed to poverty, it is also important to measure the significance of microfinance in other than the income aspects. As can be seen as of now, microfinance can clearly help reduce poverty and vulnerability. However, improvements to livelihood security are usually more incremental than the dramatic success stories sometimes quoted. For the people concerned, small changes in livelihoods may be significant. And that microfinance clearly contributes to improvements in children's welfare through increased incomes and thus: improved nutrition, housing, health and school attendance, and reductions in harmful child labor (Marcus et al., 1999). Apart from that, improvements in school attendance or in provision of educational materials are also widely reported. Invariably this related to increased household income. In Honduras, participants stated that participation in the credit and savings program had enabled them to send several children to school at a time, and had reduced drop-out in the higher primary school grades (Arcon and Colindres, 1997).

Given the significant resulting literatures on microfinance and poverty, the paper is not going to debate on the role that microfinance can play in the poverty alleviation. In fact, the role of microfinance institutions (MFI's) in giving out micro loan to the people living under the poverty line is crucial in eliminating poverty. However given the limitations that MFI's are faced, there's a need for another viable, self-sustaining alternative. Hence, the paper is set to explore the potential alternative instrument to eliminating poverty. Intending to use the microfinance as a part of the instrument, this study will bring forward how cash waqf can be a perfect alternative instrument to combat the global social problem.

Cash waqf as a poverty alleviation instrument can answer, if not all, most of the questions that have been raised against microfinance institutions' effectiveness in the specific field. From the literature review done, this paper can conclude several questions that are mainly posed by the opponent of microfinance institutions; those (questions) are in the areas of sustainability, performance, impact assessment, transaction cost, high interest rate and the non-business use of the micro-loan. Before going into the details on how the proposed instrument stand against the current available microfinance institutions, it would be best to first lay out the structure of the proposed poverty alleviation instrument (graphical representation comes later).

In any poverty alleviation program, there must be a central (not necessarily governmental) body that executes all the efforts to combat the problem. In some cases, in Bangladesh for an example, it is a bank that functions as the main entity of the program. From there, actions and measures can collectively be taken given the circumstances at the moment. Functionally the same as any other microfinance institutions, there will be an institutions that acts as a catalyst to the whole project in Malaysia. This institution, Cash Waqf Institution (or CWI from now on) will act as the backbone throughout the whole program from fund collector all the way to the fund distributor/implementer. In

Malaysia, there are several bodies that have the potential to take on the role as the CWI but however these bodies will not be discussed in the study as it requires another set of study.

## 1. Cash Waqf model

### 1.1 Source of fund

As the name implies, the source of fund for the program would be in the form of cash waqf and is driven solely from the general public's contribution. Voluntary giving as a source of fund has a sustainable factor that can ensure the survivability of the project. Philanthropic nature of the program, backed by the religious motivation provided by the religion Islam has what it takes to combat poverty head on. The extent of the potential collection of cash waqf fund per year will be presented in later in a short period.

### 1.2 Mobilization of fund

The collection of cash waqf fund would then be invested in its own Islamic financial portfolio that is well diversified in order to (1) maximize the return and (2) ensure that the fund is exposed to minimal risk. The second objective is rather important due to the nature of the fund. Since the fund is "tied" up to the term waqf, the perpetuity of the fund has to be ensure, thus the measures taken in order to make sure that any exposure to risk that can be detrimental to the value of the fund is minimized. The portfolio's investment into several productive and promising Islamic investment instruments are then expected to generate return, under few underlying assumptions that are integrated into our model. Again, this will all be presented in greater details soon.

### 1.3 Investment proceeds allocation

After taking into account the management fee of the program, the proceeds of the profit will be utilized towards the aforementioned goals. This cash waqf model intends to combat poverty in both short and long term. Short term solution can be achieved through income smoothing by using periodic cash distribution. This "capital distribution" segment of the program can help relieve the poor from their immediate need and temporarily boost their consumption. As per the long term, the proceeds will be then mobilized into three other funds – microfinance, health and education fund. If cash distribution is meant to smooth the income fluctuations, these three other mechanisms target to boost the income growth among the poor, which is the key to eradicating poverty in the intermediate to long term.

The cash waqf model consists mainly of three major components with varying underlying assumptions in each. First is the cash collection rate itself. Equally important as the other components, the potential of eradicating poverty using cash waqf lies in the plausible amount that can be collected given a period and the sustainability of it. Poverty elimination does not happen over merely 5 to 6 years but in fact it can take up to decades thus the first component is important in acting as the steam engine that drives the program over a period of time. As displayed in Figure 2, it can be seen that the contribution rate is affected by one major factor – population. As of now, Malaysia has a population of over 28 million people with the average birth rate has been 20/1000 people and average death rate of 5/1000 people every year for the past 10 years. Given the figures, the Malaysian population can be said to grow at the rate of roughly over 1 percent per year. The main contributors however would be from the Muslim fraction of the population. From the data collected, roughly 60% of Malaysian population is Muslim and this make up to 17 million people.

A simple assumption based on observation is going to be made here; for the sake of simplicity and being realistic, the assumed figures are derived upon a pessimistic nature. The purpose of such measure is to analyze the potential that the program has even under the worst circumstances. It is however, not impossible for the given figures to do even better in reality. The collection rate is estimated based on the weekly charitable contribution during Friday prayer at the mosque. On average, RM1 per Muslim are contributed every week and given the weekly donation period, it would amount to RM52 per Muslim donation per year (52 weeks X RM1). Average contribution of RM52 per person might not be so significant at a glance, but looking at the demographic of Malaysia, RM52 per person is in fact a good figure to start with. It will be shown later to what extent this amount per person can contribute to the poor and needy. On a side note, it is important to note that under the model, the contribution rate is not static as it grows alongside the population. Detailed simulations on the projected cash contribution rate can be seen from Table 1 in the appendix.

Referring back to the required perpetual nature of waqf, the value of the initial collected fund (nominally at least) has to maintained at all cost. The fund is not to be collected and immediately disbursed as there is already another instrument that does this – zakah. Hence, the second major component of the model aims to make certain the perpetuity of the fund. The investment component of

the model consists of four major investment instruments/sectors; those are mudarabah deposit, sukuk (Islamic bond), Islamic mutual fund and shariah compliant stock. These investment “sectors” are chosen based on their shariah-compliance nature due to the strict guidelines in managing waqf assets. The proportion assigned to each “sectors” can be seen in Figure 3. It can be argued that the current fund allocation is not optimum and that a better portfolio with higher expected return and lower risk can be achieved. That however would not be the concern of the paper; as mentioned before, the model only wants to analyze the potential impact that cash waqf can bring under the “average” scenario. Thus the current fund allocation is justified.

The potential earning of each sector is then simulated using computer under the assumption that returns on the aforementioned different “sectors” follow a normal distribution given its own minimum, maximum, mean and standard deviation values. In layman’s term, the overall expected profit from the investment is simulated based on a random investment venue placement that would give us random rate of return. As a matter of fact, this method of simulating the expected return can overcome the problem of overshooting or undershooting the target. Over-projecting the return would give an unrealistic result while under-projecting can undermine the true potential of the cash waqf. The profit simulation for each respective “sectors” can be seen from the Table 2. The source of cash waqf fund, referred to as social capital from now on, are injected into various said instruments that covers various productive economic sectors. The model intentionally aims to benefit all possible parties be it directly or indirectly. The extent of how these investment decisions positively affect the economy can be another area that is worth to be studied.

From the Figure 1 again, it can be traced where the proceeds of the investment would be channeled to. First of all, a segment of the proceeds is going to be reinvested into the fund pool in order to counter the inflation effect. The reinvestment fraction is currently determined by the inflation rate of 4% (taken as the average of the inflation rate over 10 years). With 4% inflation rate, 0.04 fraction of the investment would be reinvested to maintain the real value of the fund, taken into account the inflation factor. Apart from the reinvestment, another fraction of the proceeds would have to be set aside for the management fees. The model simulates using the assumption that 0.1 fraction of the investment proceeds is required for this purpose.

The final and the utmost important component of the model is the implementation component. It is through this component that funds can be channeled through various proposed purposes such as health, education, microfinancing and cash disbursement. For each purpose, there will be a specific account that allocated fund can be channeled to. From here, various outputs can be studied.

Microfinance fund can be further split into two – non-enterprise and enterprise purposes. Loans for non-enterprise purposes (usually for consumption) are given out as benevolent loans with variable repayment options. The other portion of the microfinance fund is to be given out as mudarabah funds for the poor to finance/start up businesses. Funds for non-enterprise and enterprise purposes are separated because the model acknowledges the fact that not every poor people have the entrepreneurship capability and the commitment to run a business. Thus, for those who are not ready to jump into entrepreneurship yet, can still get access to microfinance facility. Non-enterprise loans aim to boost short term consumption while enterprise loans aim to stimulate income growth and stability in the long run. Table 3 shows the potential number of poor people that can have access to micro credit facility each year given the amount accumulated in the microfinancing fund.

Successful microbusiness will be able to generate employment opportunities and boost the income growth of the entrepreneurs and their respective employees. Note the word ‘successful’ that is attached to microbusiness. The number of mudarabah financing given for enterprise purposes alone offers us no clue on the poverty alleviation goal. A recent survey of global entrepreneurial activity indicates that the failure rate of small businesses can be up to 80%. In other words, out of 100 newly startup business, only 20 would make it beyond 5 years. The 20% however is able to provide a continuous employment opportunity. Similar study by Global Entrepreneurship Monitor has shown those small businesses are expected to employ 5 people per business. The potential that this has in Malaysia can be seen from Table 3. Over the course of 3 years, there can be as much as 504861 employment opportunities generated using the microfinancing fund.

Aiming to duplicate the current government social safety net program, a fraction of the poverty alleviation fund is allocated for disbursement. Also aimed to increase short term consumption of the poor like non-enterprise micro-loan, cash disbursement however has to strings attached to it. Given the limited amount of fund available for this purpose, not all population can be reached in every year. As can be seen in TABLE 4, there are times when only 3% of the poor population can be served and there are years where almost every poor people can receive the cash disbursement.

To tackle poverty in the long run, help must not be given not only in terms of cash distribution and microcredit. Thus another portion of the program fund will be allocated towards providing the poor

with the necessary healthcare services and the rest would go towards the education of younger generation among the poor population. Using the health and education expenditure per capita of the year 2010 as the basis, the computer can simulate the potential number of poor that can be reached every year given the allocated funds for these purposes. The number varies every year, but over a long period, the trend looks encouraging as more poor people can be served.

The answer to the question of what is the potential of cash waqf in alleviating poverty is then, in 30 years, over 500,000 of people can be taken out of poverty. That is over 50% reduction of Muslim poverty in Malaysia over 30 years. This is estimated from the number of employment that can be created through (successful) microbusiness, number of recipients of the cash disbursement, and finally the number of people that will have access to education and health services. It is believed that individuals who get access to all facilities that the program provides can be taken out of poverty, both in the short and long run. Apart from tackling poverty, the model can save the government up to RM13Billion in 30 years. With that much savings, the government can allocate its budget to other potentially productive sectors of the economy. Summarized in Table 6 are all the significant outputs that can serve as the ultimate finding of this study.

## **2. Cash Waqf model vs MFI's**

By comparing cash waqf model and the microfinance institutions model side by side, it can't be helped but to notice how cash waqf model proves to be a viable alternative instrument in combating poverty. It manages to answer most (if not all) questions that have been raised against the microfinance institutions as a poverty alleviation solution. Thus this section will be concluded with the list of why cash waqf should be considered.

### **2.1 Sustainability**

The nature of waqf makes it more appealing for Muslims to contribute to the fund. The religious nature attached to it can attract all range of Muslims to donate (endow) and from the model we can say that a consistent rate of donation is realistic enough to be assumed. Given the perpetual feature of waqf, the fund can be managed without any liquidity constraint. This is different with MFI as it has to balance the deposits and the loans in managing the liquidity. On top of that, the most important factor that ensures the sustainability of the cash waqf model is its structure. Cash funds collected are not to be spent directly towards poverty alleviation as it would mirror zakah. The fund however is invested in an Islamic investment portfolio consists of the several instruments mentioned earlier. Only the proceeds of the investment are to be used in the program.

### **2.2 Interest rate**

Some of the MFI's that offers micro-loan charges high interest rates on the loan and require weekly repayments immediately. This is against the poverty alleviating goal as the MFI's are just another profit-making entity. Under the cash waqf model, non-enterprise loan is given out as benevolent loan with interest rate and charges. For the enterprise purpose, financing is given out as mudarabah rather than debt and again no interest rate is involved in the repayment. Note that the model does not take into account the repayment factor. This is to show that the survivability of the model does not depend on the repayments from the borrowers. Thus borrower's credit risk is not a significant factor.

### **2.3 Non-business use of loan**

Some opponents of MFI's as poverty alleviation instrument stress out the loan taken out for business purposes end up being used other than the stipulated purposes. The cash waqf model has already taken this into consideration by separating the funds for non-business and business purposes. Using mudarabah concept there will be monitoring and the person who has applied for business financing can still take apply for the benevolent loan. Together this will reduce the potential mismanagement of the funds given out.

## **DISCUSSION AND CONCLUSION**

Based on the above study result and various scenario proposed, the potential that cash waqf model can play in the poverty alleviation can already be seen. By no mean this study is not to undermine or suggest the replacement of the institution of zakah. In fact, if coupled with zakah, the potency can be taken up to another level. This study can also help the government in formulating its future policies as

has been shown before, over 30 years it can save the government up to RM13 billion. This huge sum of potential savings can prompt the legislators and policy makers into further taking cash waqf into consideration as the legal framework of cash waqf in Malaysia now is not conducive. For researchers, this study can be further expanded to develop a complete system that can fully mimic the real economic situation now. And since system dynamics methodology in economic analysis is something new, hopefully this study will open up the possibilities of more economic research using the said methodology.

The author however acknowledges the research limitation. There are still many assumptions that have to be taken in the course of the research due to the lack of data and other constraints. He believes that this study is not meant to be referred to as the ultimate study on the subject matter. The study is hoped to drive more studies on the potential of cash waqf in poverty alleviation and the positive impact that it can have on the Malaysian economy. Finally, the author would like to acknowledge the contribution that government has made all this while. Over the past years, the government of Malaysia has been so dedicated in ensuring equality among the population and not by all means this study is intended to undermine the role that the government has played. Poverty can be eradicated faster if all parties work alongside each other with the same agenda, population equality.

## REFERENCES

- Ardon, Mejia, M. & Colindres, I., (1997). Desarrollo de alternativas permanentes de financiamiento rural. La experiencia de las Asociacion de Productores del Campo. Tegucigalpa.
- Chowdury, M.S.R., Ghazali, M.F., 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(30), 12155-12163.
- Dian Masyita (2007). Developing a Computer Simulation Based Approach to Simulate Potency of Islamic Voluntary Sector to Alleviate Poverty in Indonesia Using System Dynamics Methodology. Paper presented at First International Conference on Inclusive Islamic Financial Sector Development: Enhancing Islamic Financial Services for Micro and Medium Sized Enterprises (MMEs), Brunei
- Foyasal Khan. (2010). Waqf: An Islamic Instrument of Poverty Alleviation - Bangladesh Perspective. Paper presented at Seventh International Conference - The Tawhidi Epistemology: Zakat and Waqf Economy. Bangi, SL
- Global Entrepreneurship Monitor. (2010). Global Entrepreneurship monitor 2010 Global Report
- Habib Ahmed (2007). Waqf-Based Microfinance: Realizing the Social Role of Islamic Finance. Paper presented at Integrating Awqaf in the Islamic Financial Sector, Bangi, SL
- Khandker, Shahid. 2001. Does Micro-finance Really Benefit the Poor? Evidence from Bangladesh. Paper presented at Asia and Pacific Forum on Poverty: Reforming Policies and Institutions for Poverty Reduction held by the Asian Development Bank, Manila.
- Lahsasna, A. (2010). The Role of Cash Waqf in Financing Micro and Medium Sized Enterprises (MMEs). Paper presented at Seventh International Conference - The Tawhidi Epistemology: Zakat and Waqf Economy. Bangi, SL
- Marcus, R., Porter, B., & Harper, C., (1999). *Money Matters: Understanding Microfinance. Save the Children*. London.
- Murat cizakca (1998). Awqaf in History and Its Implications for Modern Islamic Economies. *Islamic Economic Studies*, 6(1), 43-69.
- Remenyi, J., Quinones, B. (2000). *Microfinance and Poverty Alleviation: Case studies from Asia and the Pacific*. New York.
- Robinson, M. (2001). *The Microfinance Revolution: Sustainable Finance for the Poor*. World Bank, Washington.
- Saduman, S., Aysun, E.E., (2009). The Sosio-Economic Role of Waqf System in the Muslim-Ottoman Cities' Formation and Evolution. *Trakia Journal of Sciences*, 7(2), 272-275.
- Salarzahi, H., Armesh, H., Nikbin, D.. (2010). Waqf as a Social Entrepreneurship Model in Islam. *International Journal of Business and Management*, 5(7), 179-185.
- Tohirin, A. (2010). The Cash Waqf for Empowering the Small Businesses. Paper presented at Seventh International Conference - The Tawhidi Epistemology: Zakat and Waqf Economy. Bangi, SL



GRAPHS

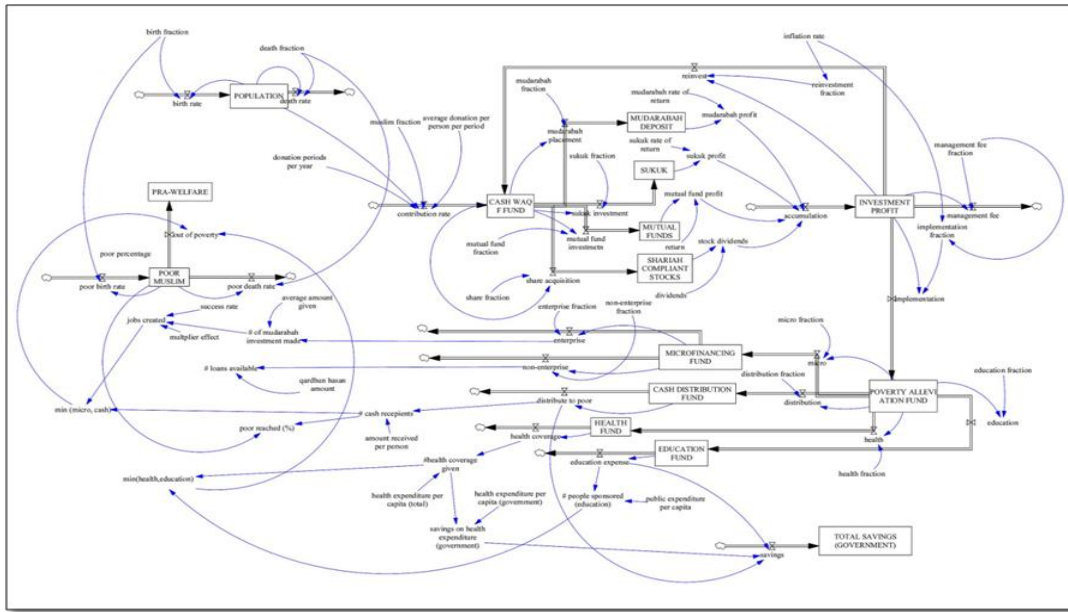


FIGURE 1. Cash Waqf Model

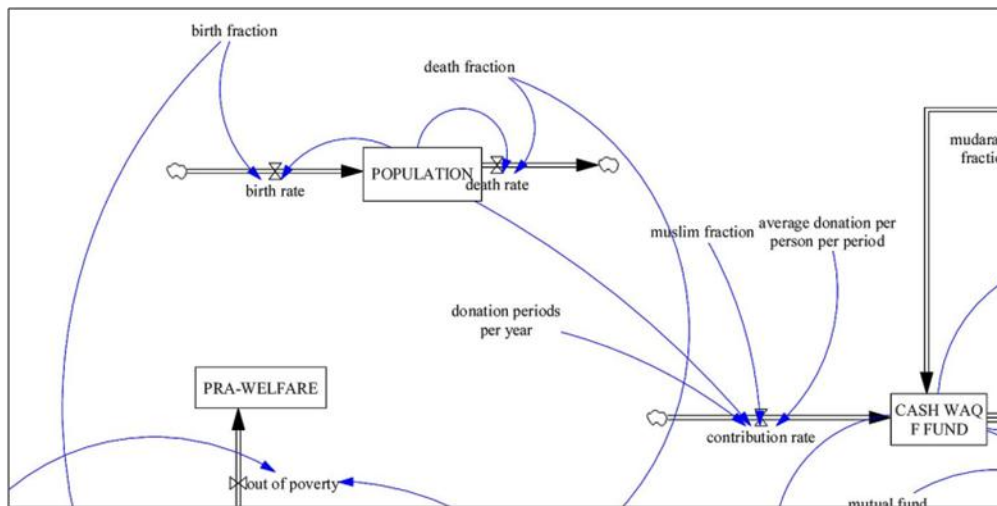


FIGURE 2. Cash Collection Component

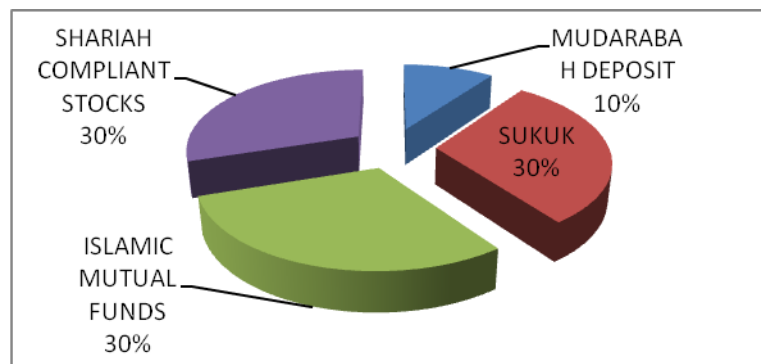


FIGURE 3. Investment Portfolio

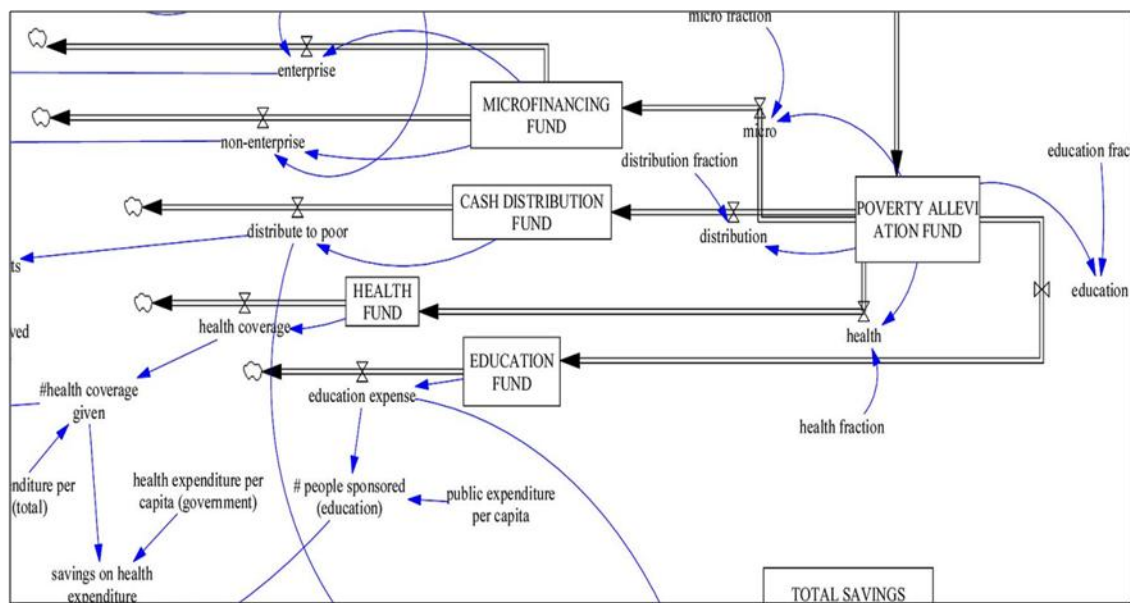


FIGURE 4. Implementation Component

TABLE 1. Contribution Rate and Population

Time (Year)	contribution rate	POPULATION
0 MYR	945,185,000.00	28401000
1 MYR	959,363,000.00	28827000
2 MYR	973,754,000.00	29259400
3 MYR	988,360,000.00	29698300
4 MYR	1,003,190,000.00	30143800
5 MYR	1,018,230,000.00	30595900
6 MYR	1,033,510,000.00	31054900
7 MYR	1,049,010,000.00	31520700
8 MYR	1,064,740,000.00	31993500
9 MYR	1,080,720,000.00	32473400
10 MYR	1,096,930,000.00	32960500
11 MYR	1,113,380,000.00	33454900
12 MYR	1,130,080,000.00	33956800
13 MYR	1,147,030,000.00	34466100
14 MYR	1,164,240,000.00	34983100
15 MYR	1,181,700,000.00	35507800
16 MYR	1,199,430,000.00	36040500
17 MYR	1,217,420,000.00	36581100
18 MYR	1,235,680,000.00	37129800
19 MYR	1,254,210,000.00	37686700
20 MYR	1,273,030,000.00	38252000
21 MYR	1,292,120,000.00	38825800
22 MYR	1,311,500,000.00	39408200
23 MYR	1,331,180,000.00	39999300
24 MYR	1,351,150,000.00	40599300
25 MYR	1,371,410,000.00	41208300
26 MYR	1,391,980,000.00	41826400
27 MYR	1,412,860,000.00	42453800
28 MYR	1,434,060,000.00	43090600
29 MYR	1,455,570,000.00	43737000
30 MYR	1,477,400,000.00	44393000

TABLE 2. Investment Proceeds

Time	mudarabah profit	mutual fund profit	stock dividends	sukuk profit
0	MYR -	MYR -	MYR -	MYR -
1	MYR -	MYR -	MYR -	MYR -
2	MYR 6,431,850.00	MYR 48,756,300.00	MYR 8,562,100.00	MYR 1,051,770.00
3	MYR 14,115,300.00	MYR 169,190,000.00	MYR 7,010,950.00	MYR 20,924,300.00
4	MYR 20,666,500.00	MYR 102,596,000.00	MYR 40,270,600.00	MYR 19,412,900.00
5	MYR 23,885,400.00	MYR 212,073,000.00	MYR 27,672,800.00	MYR 50,617,000.00
6	MYR 24,068,500.00	MYR 42,644,300.00	MYR 655,699.00	MYR 56,284,900.00
7	MYR 33,366,300.00	MYR 411,141,000.00	MYR 36,481,000.00	MYR 29,284,900.00
8	MYR 37,643,400.00	MYR 574,036,000.00	MYR 11,006,800.00	MYR 77,659,500.00
9	MYR 34,114,700.00	MYR 584,144,000.00	MYR 109,383,000.00	MYR 40,214,300.00
10	MYR 50,422,000.00	MYR 673,382,000.00	MYR 43,602,100.00	MYR 38,790,100.00
11	MYR 62,828,200.00	MYR 709,987,000.00	MYR 108,740,000.00	MYR 5,303,120.00
12	MYR 59,047,600.00	MYR 681,202,000.00	MYR 108,165,000.00	MYR 52,705,800.00
13	MYR 93,370,000.00	MYR 322,725,000.00	MYR 121,029,000.00	MYR 92,665,600.00
14	MYR 103,337,000.00	MYR 637,944,000.00	MYR 131,243,000.00	MYR 47,987,200.00
15	MYR 86,460,800.00	MYR 411,045,000.00	MYR 104,155,000.00	MYR 122,744,000.00
16	MYR 79,842,600.00	MYR 493,215,000.00	MYR 21,255,200.00	MYR 233,989,000.00
17	MYR 124,980,000.00	MYR 1,042,830,000.00	MYR 101,308,000.00	MYR 118,561,000.00
18	MYR 75,250,500.00	MYR 1,235,620,000.00	MYR 203,882,000.00	MYR 234,629,000.00
19	MYR 87,489,100.00	MYR 1,450,620,000.00	MYR 243,069,000.00	MYR 892,386.00
20	MYR 126,041,000.00	MYR 186,872,000.00	MYR 70,902,200.00	MYR 162,468,000.00
21	MYR 101,272,000.00	MYR 624,705,000.00	MYR 318,587,000.00	MYR 30,236,500.00
22	MYR 172,161,000.00	MYR 903,479,000.00	MYR 42,927,600.00	MYR 272,877,000.00
23	MYR 111,493,000.00	MYR 1,282,510,000.00	MYR 301,224,000.00	MYR 138,904,000.00
24	MYR 108,328,000.00	MYR 2,213,370,000.00	MYR 148,315,000.00	MYR 360,981,000.00
25	MYR 94,213,100.00	MYR 1,832,330,000.00	MYR 332,045,000.00	MYR 143,570,000.00
26	MYR 95,711,800.00	MYR 151,094,000.00	MYR 298,954,000.00	MYR 343,036,000.00
27	MYR 211,513,000.00	MYR 1,865,510,000.00	MYR 312,130,000.00	MYR 61,243,500.00
28	MYR 129,967,000.00	MYR 883,285,000.00	MYR 201,117,000.00	MYR 465,644,000.00
29	MYR 212,078,000.00	MYR 567,067,000.00	MYR 230,007,000.00	MYR 365,743,000.00
30	MYR 190,377,000.00	MYR 2,049,560,000.00	MYR 3,672,000.00	MYR 110,826,000.00

TABLE 3. Microfinance Output

Time	# loans	# mudarabah undertaken	jobs created	total job created
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	1393	2229	1338	0
6	4542	7267	4360	1338
7	3933	6293	3776	5698
8	6756	10810	6486	9474
9	2659	4254	2552	15960
10	10971	17553	10532	18512
11	15057	24092	14455	29044
12	16509	26414	15849	43499
13	17333	27733	16640	59348
14	19068	30508	18305	75987
15	19374	30999	18599	94292
16	13541	21665	12999	112891
17	19791	31666	18999	125890
18	15575	24920	14952	144890
19	17809	28494	17096	159841
20	29835	47736	28642	176937
21	37612	60179	36107	205579
22	38315	61303	36782	241686
23	11745	18792	11275	278468
24	23108	36973	22184	289744
25	29916	47866	28719	311928
26	39434	63094	37857	340647
27	60866	97386	58432	378503
28	51647	82634	49581	436935
29	19109	30575	18345	486516
30	52684	84294	50576	504861

TABLE 4. Cash Receipts

Time (Year)	# cash recipients	POOR MUSLIM	poor reached (%)
0	0	690712	0
1	0	701073	0
2	0	711589	0
3	0	722263	0
4	0	733097	0
5	27865	744093	3.74481
6	90834	753917	12.0482
7	78667	760866	10.3391
8	135127	768503	17.5831
9	53171	773544	6.87368
10	219417	782595	28.0371
11	301149	783802	38.4215
12	330178	781104	42.2706
13	346664	776972	44.6173
14	381349	771987	49.3984
15	387482	765262	50.6339
16	270810	758142	35.7202
17	395820	756515	52.3215
18	311494	748863	41.5956
19	356170	745145	47.7988
20	596704	739226	80.7201
21	752234	721672	104.235
22	766292	696390	110.038
23	234901	670054	35.0571
24	462164	668830	69.1005
25	598321	656678	91.1133
26	788677	637809	123.654
27	1217330	609520	199.719
28	1032930	560231	184.376
29	382182	519053	73.6307
30	1053670	508494	207.214

TABLE 5. Education and Health Coverage Sponsor

Time (Year)	# people sponsored (education)	#health coverage given
0	0	0
1	0	0
2	0	0
3	0	0
4	0	0
5	13345	12213
6	43503	39811
7	37676	34479
8	64716	59225
9	25465	23304
10	105085	96168
11	144228	131990
12	158131	144713
13	166027	151939
14	182639	167141
15	185576	169829
16	129698	118693
17	189569	173483
18	149183	136524
19	170580	156105
20	285778	261529
21	360265	329696
22	366998	335857
23	112501	102955
24	221343	202562
25	286552	262237
26	377719	345668
27	583012	533542
28	494698	452722
29	183038	167506
30	504632	461813

TABLE 6. Summary of Important Output

Time (Year)	Poverty Alleviation Funds	POOR MUSLIM	poor (% of total population)	PRA-WELFARE	TOTAL SAVINGS (GOVERNMENT)
0	MYR -	690712	2.432	0	MYR -
1	MYR -	701073	2.432	0	MYR -
2	MYR -	711589	2.432	0	MYR -
3	MYR 55,729,700.00	722263	2.432	0	MYR -
4	MYR 181,667,000.00	733097	2.432	0	MYR -
5	MYR 157,333,000.00	744093	2.432	0	MYR -
6	MYR 270,254,000.00	753917	2.42769	1337.51	MYR 35,705,500.00
7	MYR 106,342,000.00	760866	2.41386	5697.52	MYR 152,098,000.00
8	MYR 438,835,000.00	768503	2.40206	9473.52	MYR 252,900,000.00
9	MYR 602,298,000.00	773544	2.38208	15959.6	MYR 426,049,000.00
10	MYR 660,355,000.00	782595	2.37434	18511.8	MYR 494,181,000.00
11	MYR 693,329,000.00	783802	2.34286	29043.8	MYR 775,338,000.00
12	MYR 762,699,000.00	781104	2.30029	43499	MYR 1,161,220,000.00
13	MYR 774,963,000.00	776972	2.25431	59347.5	MYR 1,584,310,000.00
14	MYR 541,619,000.00	771987	2.20674	75987.4	MYR 2,028,520,000.00
15	MYR 791,640,000.00	765262	2.15519	94292.2	MYR 2,517,170,000.00
16	MYR 622,988,000.00	758142	2.10359	112891	MYR 3,013,680,000.00
17	MYR 712,340,000.00	756515	2.06805	125890	MYR 3,360,690,000.00
18	MYR 1,193,410,000.00	748863	2.01688	144890	MYR 3,867,890,000.00
19	MYR 1,504,470,000.00	745145	1.97721	159841	MYR 4,267,030,000.00
20	MYR 1,532,580,000.00	739226	1.93251	176937	MYR 4,723,420,000.00
21	MYR 469,803,000.00	721672	1.85874	205579	MYR 5,488,030,000.00
22	MYR 924,329,000.00	696390	1.76712	241686	MYR 6,451,930,000.00
23	MYR 1,196,640,000.00	670054	1.67516	278468	MYR 7,433,840,000.00
24	MYR 1,577,350,000.00	668830	1.64739	289744	MYR 7,734,840,000.00
25	MYR 2,434,660,000.00	656678	1.59356	311928	MYR 8,327,050,000.00
26	MYR 2,065,860,000.00	637809	1.52489	340647	MYR 9,093,720,000.00
27	MYR 764,365,000.00	609520	1.43572	378503	MYR 10,104,300,000.00
28	MYR 2,107,340,000.00	560231	1.30012	436935	MYR 11,664,200,000.00
29	MYR 1,444,810,000.00	519053	1.18676	486516	MYR 12,987,800,000.00
30	MYR 1,182,410,000.00	508494	1.14544	504861	MYR 13,477,500,000.00