

Role of Government Support to Micro Financing in Islamic Bank for Clean Water Connection to Low-Income Communities

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(This paper is dedicated to my lovely parents: Hardo Prastowo and Nurlaila Maulani)

Abstract

Microfinance for water connections have a very important role for low-income people who have the cash to pay for clean water connections are limited. Clean water is a basic human need for survival. It is considered that the Islamic banks to innovate microfinance products. Product innovation is the use of micro financing murabaha contracts and feasibility analysis of interventions that aim to facilitate the applicant that low-income people get clean water connections. In order for microfinance product water connection can have a wide impact, the role of government and stakeholders is required to minimize the risk.

Keywords: micro finance, islamic bank, low income communities, innovation, government's role, mitigate the risk

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1. Introduction

Microfinance services have different characteristics with other financial services. Differences microfinance services with other financial services is microfinance services have a double bottom line that improve financial performance and social (Hudon, 2011). Microfinance services is inseparable from the existence of the poor because microfinance services have the goal of poverty alleviation, rural economic development, including helping the government as agents of development and agents of change (Copestake et al., 2005; Morduch, 1999). Accessibility to financial services is a problem faced by low-income people. Islamic banks should be concerned about low-income people or poor because Islamic banks, which is an intermediary institution, has an important responsibility in meeting the credit needs of the poor and to promote their welfare (Shahinpoor, 2009).

Conditions of the poor in developing countries is difficult to meet the basic needs. Basic needs include: clothing, food (including drinking water) and housing. In addition to the basic needs of water is also a source of life expressed in the Qur'an (21:30): "Do the unbelievers not considered that the heavens and the earth were a joined entity, and We separated them and made from water every living thing? Then will they not believe? ". Therefore, access to clean water is a human right. However, while in developing countries there are many low income communities who have difficulties in accessing clean water for consumption.

Regarding human development report (UNDP, 2006), the global financial crisis consist many poor people can not access clean water that causes vulnerability and insecurity. Number of poor people to developing countries that can not access clean water in 2006 reached 1.1 billion

In developing countries, for example, Indonesia, low income communities unable to pay clean water connections in cash to the local government water company because the price is expensive. Based on these conditions, Islamic banks want to provide microfinance services for water connections for low income communities. In addition to the availability of clean water for society is also the responsibility of the government and all stakeholders. Therefore, the success of this program should be supported by the government as state officials and stakeholders. To limit problems, the discussion in this paper is based on the following questions:

- What are the constraints for access clean water?
- What are the principles of Islamic bank to financing clean water connections for Low Income Communities?
- Is the current micro-financing for clean water access to the poor has been running?
- How does the role of government in order to finance micro water connections can be implemented massively?



2. Water in Developing Countries: What are The Constraints for Access Clean Water?

Several limiting factor in the provision of clean water in developing countries according to Lenton and Wright (2004) are as follows:

- Political factors, in developing countries clean water and sanitation sector is not a priority in the development of government policy.
- Financial Factors that society or people in developing countries the majority are low income communities, which makes the clean water is not their priority.
- Technical factors that the spread of the residence or location of the houses.

One of the characteristics of developing countries is the high number of low income communities or poor people. The majority of low income communities, who do not have access to clean water because of not being able to pay in cash connection to clean water. It is a challenge for Islamic banks that have social as well as financial goals and achieving sharia goal in microfinance to create products that can meet the needs of low income communities. Regarding Ibnu (2006) sharia goal is to achieve prosperity in all levels of society.

Low income communities do not have collateral in the form of fixed assets to obtain financing micro and have incomes below regional minimum wages. Under these conditions, many banks are not interested in providing microfinance products clean water connections for low income people. Difficulties low-income communities and to provide assurance of their income under the regional minimum wage was the main reason for Islamic banks to undertake microfinance product innovation. According Mersland and Storm (2010), finding new markets among low income communities and meet their needs in the long term is a part of the innovation.

3. Islamic Bank and Microfinance: What are the principles of Islamic bank to financing clean water connections for Low Income Communities?

Basic principles of microfinance is set of financial practices designed to serve low income communities (Armendariz and Labie, 2011) so the characteristics of microfinance products (Karlan and Goldberg, 2011) are: small transactions and minimum balances (whether loans, savings, or insurances), collateral-frees loans, simple application processes, provision of services in underserved communities and market level interest rates.

The main goal of microfinance is to help the poor become economically independent is not to be dependent on government assistance or burden the State (Rahim, 2010). Micro finance can also be directed to the community or those who have not been able to meet the requirements of banks that they are not able to provide guarantees for microfinance banking in order to protect from the risk of loss in case of failure to pay any installment of microfinance (Abu and Rafique, 2009). According to Armendariz and Morduch (2010), subsidies also limited to compensate the bank in order to enter the market in which they are afraid to take a big loss because of the high transaction costs and the inherent risks. Subsidies are also used to maintain low interest rates to poor borrowers. In the Philippines, for example, the interest rate charged to the borrower up to 16 percent before the reform in 1981.

Concern over the provision of financing and financial accessibility for the poor through micro-financing is also relevant to Islamic banks. Islamic banks should have a responsibility and a greater role for social welfare and commitment to achieve the economic goals of Islam which includes social justice, equitable distribution of income and wealth and to support economic development (Ashraf, 2008). Islamic banking must have a role to engage in microfinance programs in order to meet the needs of poor people who can not provide collateral to obtain micro financing (El - Gamal, 2006; Al-Harran, 1990, 1996, 1999; Akhtar,1996, 1998; Dhumale and Shapcanin, 1998; Ahmed, 2001).

According to Chapra (2000), the Islamic view point of human activity is a fundamental belief that the universe and everything in it, including humans, have been created by God Almighty. All human beings are brothers and vicegerents is one of unity with each other. There is no superiority of one over another because of race, gender, nationality, wealth, or power. They live in this world is temporary. Their ultimate goal is eternal life in the hereafter where they will be held accountable before God. Life in the hereafter depends on their activity in the world in order to fulfill their obligations to others, by way of helping fellow human beings in order to realize the welfare of the whole people.

Under these conditions, the Islamic Bank is expected to play a role in creating prosperity evenly throughout society. It is also narrated in a hadith by Musnad Shihab, Hadith no.1234 as follows: "The best man is the most beneficial to others." Therefore micro-finance product innovation made by Islamic banks in the form of micro-financing for clean water access for low income communities is one part of the role of Islamic banks to create wealth for the whole society.

4. Micro-financing by Islamic banks: Is the current micro-financing for clean water access to the poor has been running?

Evidence of delivery of microfinance water connection by Islamic banks has been done by Bank Syariah Mandiri in Indonesia, as a beginning in regency Kudus the area of Central Java. Providing of micro financing for



the installation of clean water is a partnership between the local government of Kudus, Bank Syariah Mandiri Kudus branch and IUWASH-USAID . From February 2012 until March 2013 has provided 3,750 water connections to low income communities by the ratio of non-performance loan or non performance financing 0%. Micro finance portfolio is aimed at poor families who can not afford clean water connections in cash. Cost of water connection is approximately Rp1.5 million to Rp3 million. If low income communities are utilizing microfinance facilities from Bank Syariah, then they only pay monthly installments per month to Rp50,000, - up to Rp100,000, - for a period of 12 months financing up to 36 months (IUWASH, 2013).

According Rosengård (2011), microfinance has a unique product that there must be a specialized supervision include:

Supervision of the client or customer-based, microfinance clients are low-income households and informal family business that designs and product features must be tailored to the household finances and their business needs. For example, the priority for savings services that they consider are security access than profits. While the loan is to be anticipated to match the payment schedule with the timing and amount of cash flows that they have. Assessment methodology loans, the majority of micro businesses do not have formal financial records and do not have conventional collateral received, so the loan assessment is often based on a qualitative assessment of the character and a rough estimate of the cash flow from the income statement reconstructed, while items such as mobile asset or group guarantees can be accepted as a substitute for conventional collateral.

Banks and other financial institutions have failed to meet the financing needs of the low income communities in developing countries. Because they use procedures or practices that are traditional banking. Traditional banking procedure is based on the analysis of security, reputation, and guarantees the applicant (Koveos, 2004).

Although collateral is also an important factor (Holmstrom and Tirole, 1993) on the feasibility analysis of micro-finance, but the most important factor in the analysis of micro-finance is a character (Diamond, 1991; Morduch, 2000; Rosengård, 2011). That is because the availability of collateral is an obstacle for low income communities.

That is because low income communities do not have a fixed asset, although there are fixed assets can not be pledged as collateral for the loan. Therefore they are really marginalized from the formal financial sector. Lack of access to formal financial services is causing low-income people do not have a credit history. This condition causes the Bank assume this group has a high credit risk (Robinson, 2001).

Based on the constraints of the difficulty of providing collateral, Bank Syariah has a microfinance product with murabaha contract for clean water connection. Murabaha mechanism on micro-finance clean water to low income communities are Islamic banks buy clean water house connections package and sell them through local water company or cooperative designated as representative of Islamic banks (IUWASH, 2012). Murabaha refers to a process in which the client requests from an Islamic bank (usually due to lack of cash) to buy a commodity and sell it to him/her (the client) on credit terms; then, if the bank approves the request, it buys the commodity and sells it to the client, who in turn pays it back in instalments (Cebeci, 2012). Murabaha contracts can be applied to micro-finance clean water connections because the collateral is the water connection devices. if there is a problem of financing That water connection devices will be removed with the help of local government water company. So that low income communities do not have to provide collateral to obtain financing micro water connection. Compared to the profit-sharing model, this model is easier for both borrowers and the lenders to understand. The administration of this model is also much easier than the Mudaraba model. After the loan is accepted, the repayment schedule is very simple and easy to follow (Shahinpoor, 2009).

It is also necessary microfinance intervention analysis. Intervention analysis is the analysis of the feasibility of micro-finance clean water connections based aspects of the characters represented checking feasibility analysis BI (Bank Indonesia's central credit bureau) and information from neighbors and local community leaders (eg in Indonesia RT and RW) where the applicant lived. If the BI checking analysis is positive (no delinquent loans) and there is no negative information from neighbors and local community leaders, then the applicant is eligible to get micro-finance clean water installation.

The intervention in driven or motivated for Islamic banks as Islamic-oriented business entities. Islamic oriented business as a whole set of human life, both individual and society (Khan and Mirakhor, 1987). Therefore Islamic banking is not just banks that prohibits interest and offer products based on sharia but it is a system that aims to contribute to the fulfillment of socio-economic goals of Islam and the creation of a just society (Hassan and Musa, 2003). In the process of doing business, Islamic banks are trying to create a lasting balance between profit and social order to achieve improvements for the whole community or ummah (Haron, 1995).

The role of rural account officer is also required to carry out monitoring and evaluation of the performance of micro finance clean water connections based on early recognition of data and conduct follow-up plan. In addition to avoiding the fictitious rural finance account officer shall ensure that the recipient has the financing in accordance with the data received by the banks.

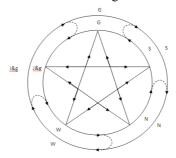


5. Risk mitigation: How does the role of government in order to finance micro water connections can be implemented massively?

"God does not change the condition of a people until they change their own innerselves" Qur'an (13:11) and that "Corruption has appeared everywhere because of what *people* have done" Qur'an (30:41, italics added).

Both verse reflects human behavior can lead to goodness or badness in their own lives. This is why all the messengers of God (including Abraham, Moses, Jesus and Muhammad) came to this world to reform people and institutions that affect their behavior (Chapra, 2008).

According to Ibn Khaldun variables are interrelated and inseparable from each other, ie Sharia (S), Community (N), government (G), welfare (W), construction (g) and justice (j) so that the function be as follows: G = f(S, N, W, g and j) (Chapra, 2008). When drawn to the following:



Based on the equation and the picture Ibn Khaldun (G) is the dependent variable because the government/authorities/leader shall ensure the welfare W for human/people they lead (N) by providing a conducive environment for development (g) and a role in creating justice (j) through the implementation of sharia (S) so as to create maghasid sharia or beneficiaries for the ummah.

Distribution of micro-finance has the potential risk because there is no guarantee in addition to also cater to those who have incomes below the minimum wage. Currently micro-financing for clean water connections with Bank Syariah Mandiri to low-income people are still confined to areas that have a high water problems. This is in order to guarantee the repayment willingness of low-income communities. This method is used as the source of repayment is derived from the household component of the cost of living is not of the productive resources of the household. Because it replaces the household costs incurred to purchase water from private companies are more expensive than buying water from water companies local government.

Islamic banking also has limitations in reaching all the poor, then to expand maslahah (benefits to society) micro financing the installation of clean water necessary role of government to be involved in micro financing installation of clean water to low-income communities. Regarding by Karlan and Golberg (2011) some governments have run their own MFIs as social programs. Historically, government-owned programs have had difficulties with repayment (perhaps due to the political difficulty of enforcing loans in bad times), but there are cases where government-owned programs can do well (e.g., Crediamigo in Brazil and BRI in Indonesia).

In this program, the government must play an active role to provide capacity building to the community, according to Mayoux (2011) capacity building is financial literacy so that clients know their rights and obligations as well as to understand the information given to them to use the best service is given. Additionally to reducing the risk covered the bank in the future is also required risk mitigation in the form of cash flow. Some government functions are needed in the financing of clean water distribution is as follows:

1) Capacity Building Function

- Government as an agent of change, role change people's habits using clean water to maintain their health, it is necessary extension functions related importance of clean water to maintain health of local government officials in regular and continuous basis so that people are aware and have a dependency on the use of clean water. Dependence on the use of clean water will lead to low income communities motivation regular installment payments. Because if it did not pay the installments then they will find it hard to get access to clean water.
- Government as an agent of development, Improving the quality of water services to support and assist the revitalization of local government water company. The objective is to improve the quality and efficiency of companies that have an impact on the accessibility of clean water connection price and fees water use by whole community..
- Islamic banking has limited ability to channel the installation of micro finance portfolio of clean water is widely and massively. Because the process of cooperation with the local government water company needed the same perceptions related to the distribution patterns of micro-finance clean water installation. The role of



government is needed to provide socialization and standardization of cooperation pattern to officials in the local area are related and have authority in the establishment of micro-finance installation of clean water to poor households.

- 2) Cash Flow Function
- The government subsidizes operating costs related to the placement of funds a government-owned third party so that the price is more affordable to low income communities with financing period is not too long (maximum 36 months).
- The government made a special program microfinance clean water connections that are directly covered by insurance financing. But for the avoid moral hazard, it need not be exposed. The mechanism is a government guarantee, the program purposes for guarantees microfinance portfolio distributed by Islamic banks not guarantee individual customers.

Respect of the things mentioned above, microfinance for water connections for low income communities can be implemented widely and massively (more maslahah) if the government and stakeholders to participate actively. Because Islamic banking has its limitations in order to mitigate the risk of micro-finance clean water connections. With the collaboration between government, banks and stakeholders can minimize the risk of financing that will arise in the future.

6. CONCLUSION

- Microfinance is a product that is also owned by the Islamic banking. Islamic bank create microfinance program to support clean water connections for low income communities. That's because water is a vital necessity for human survival and well-being of the ummah. The specific product using the murabaha contract so it does not require collateral. In addition there is a microfinance intervention analysis (financial analysis is based on the character of the applicant).
- Microfinance program connections clean water is also one of the Millennium Development Goals program. Therefore the government should provide support for the water connection program could widely implemented. Currently Islamic banks to mitigate the risk of micro-financing for the installation of clean water using a low income communities through the checks the applicant's character analysis (credit bureau) and information from local community leaders associated with the character of the applicant. However, there are limitations mitigate those risks. The limitations of the ability and the amount of human resources to predict and prevent risks that would arise if financing microfinance clean water connections are implemented in all areas without government support and stakeholders.
- The program could have a wide impact for people in all areas, if there is support from the government and stakeholders. Government support that is needed are capacity buliding and cash flow. With the support of the government and stakeholders, the risk of microfinance clean water connections to be smaller because it can reduce the limitations of Islamic banking in mitigating risk.
- The mechanism of micro-financing water connections for low income communities by Islamic banks with government support can be implemented for other programs. Program with the fulfillment of the basic needs of low income communities, such as the need for shelter, sanitation, etc.

REFERENCES

Abu Umar, F.A and A.B Rafique Ahmad. 2009. Islamic microfinance: the evidence from Australia. *Humanomics*, Vol. 25 No.3, pp. 217-235.

Ahmed, H. 2001. Financing microenterprises: an analytical study of Islamic microfinance institutions. *paper presented at the 9th Intensive Orientation Seminar Islamic foundation*, Leicester.

Akhtar, M.R. 1996. Practice and prospects of musharaka financing for small enterprise in Pakistan. *Journal of Islamic banking and finance*, Vol.13 No.3, pp.7-27.

Akhtar, M.R. 1998. Islamic microfinance: credit where credit is really due. Islamic Banker, October, pp.8-9.

Al-Harran, S. 1990. Islamic finance: the experience of the Sudanese Islamic bank in partnership (musharaka) financing as a tool for rural development among small farmers in Sudan. *unpublished PhD thesis*, Durham University, Durham.

Al-Harran, S. 1996. Islamic finance needs a new paradigm. New Horizon, Vol. 48, February, pp. 7-9.

Al-Harran, S. 1999. Islamic partnership financing. Arab law quaterly, Vol. 14 No. 3, pp. 193-202.

Armendariz, Beatriz and Jonathan Morduch. 2010. *The Economics of Microfinance*, 2nd ed. London: The MIT Press Cambridge, Massachusetts.

Armendariz, Beatriz and Marc Labie. 2011."Introduction and Overview: An Inquiry into the Mismatch in Microfinance". In Beatriz Armendariz and Marc Labie, eds., *The Handbook of Microfinance*. London: World Scientific Publishing, Forthcoming, p. 3-13.

Cebeci, Ismail. 2012. Integrating the social maslaha into Islamic finance, *Accounting Research Journal*, Vol. No. 25, pp. 166-184.



Chapra, M. Umer. 2000. Is it necessary to have Islamic economics?, *Journal of Socio-Economics*, Vol. 29, pp. 21-37.

Chapra, M. Umer. 2008. Ibn Khaldun's theory of development: Does it help explain the low performance of the present-day Muslim world?, *Journal of Socio-Economics*, Vol. 37, pp. 836-863.

Copestake, J, P Dawson, JP Fanning, A McKay and K Wright-Revolledo (2005). Monitoring the Diversity of the Poverty Outreach and Impact of Microfinance: A Comparison of Methods Using Data from Peru. *Development Policy Review*, Vol. 23, No.6, pp.703-723.

Dhumale, R. and Shapcanin, A. 1998. An application of Islamic banking principle to microfinance. *United nations development program*, Regional bureau for Arab states, New York, NY.

Diamond, D. 1991. Monitoring and reputation: the choice between bank loans and directly placed debt. *Journal of Political Economy*, Vol. 99, pp. 689-721.

El-Gamal, M.A. 2006. Islamic finance: law, economics and practice. *Cambridge University Press*, Cambridge.

Haron, S. 1995. 'The Philosophy and Objective of Islamic Banking: Revisited.' New Horizon: 5-7.

Haron, S. & Hisham, B. 2003. 'Wealth Mobilization by Islamic Banks: The Malaysian Case.' *Paper presented at International Seminar on Islamic Wealth Creation*.

Hassan, N. M. N. & Musa, M. 2003. 'An Evaluation of the Islamic Banking Development in Malaysia.' *Paper presented at International Islamic Banking Conference*.

Holmstrom, B. and Tirole, J. 1993. Financial intermediation, Loanable funds and the real sector. *IDEI*, Toulose University, Toulose.

Hudon, Marek. 2011."Ethics in Microfinance". In Beatriz Armendariz and Marc Labie, eds., *The Handbook of Microfinance*. London: World Scientific Publishing, forthcoming, p. 123-138.

Ibnu, Asyur. 2006. Treatise on Maqasid al-shari'ah (translated by El-Mesawi, M.E-T). *The International Institute of Islamic Thought*, London.

Karlan, Dean and Nathanael Goldberg. 2011."Microfinance Evaluation Strategies: Notes on Methodology and Findings". In Beatriz Armendariz and Marc Labie, eds., *The Handbook of Microfinance*. London: World Scientific Publishing, Forthcoming, p. 17-58

Khan, M. S. & Mirakhor, A. 1987. 'The Framework and Practice of Islamic Banking.' In M. S. Khan & A. Mirakhor (Eds.) *Theoretical Studies in Islamic Banking and Finance*. Texas, USA: The Institute for Research and Islamic Studies.

Koveos, Peter. 2004. Financial Services for the Poor: Assessing Microfinance Institutions, *Managerial Finance*, Vol. 30 No. 9.

Lenton, R. and A. Wright. 2004. Interim Full Report, Task Force on Water and Sanitation Millennium Project. Achieving the Millennium Development Goals for Water and Sanitation: "What Will It Take?". *United Nation Secretary General*. Available online at http://www.bvsde.ops-oms.org/bvsacd/milenio/tf7interim.pdf

Mayoux, Linda. 2011."Taking Gender Seriously: Towards a Gender Justice Protocol for Financeial Services". In Beatriz Armendariz and Marc Labie, eds., *The Handbook of Microfinance*. London: World Scientific Publishing, Forthcoming, p. 613-641

Mersland, Roy and R. Oystein Strom. 2010, "The Past and Future of Innovations in Microfinance". In D. Cumming, *The Oxford Handbook of Entrepreneurial Finance*. Oxford University Press.

Morduch, Jonathan. 1999. The microfinance promises. *Journal of Economic Literature*, Vol. 37, pp. 1569-1614. Morduch, Jonathan. 2000. The Microfinance Schism, *World Development*, Vol. 28, No. 4, pp. 617-629.

Rahim, Abdul . 2010. Islamic microfinance: an ethical alternative of poverty alleviation. *Humanomics*, Vol.26 No.4, pp. 284-295.

Robinson, Marguerite S. 2001. "The Microfinance Revolution: Suistanable Finance for the Poor". *World Bank.* Washington DC and Open Society Institute, New York.

Rosengard, Jay K. 2011."Oversight is a Many-Spelondored Thing: Choice and Proportionality in Regulating and Supervising". In Beatriz Armendariz and Marc Labie, eds., *The Handbook of Microfinance*. London: World Scientific Publishing, Forthcoming, p.159-171.

Shahinpoor, Nasrin. 2009. The link between Islamic banking and microfinancing. International Journal of Social Economics, Vol. 36 Iss:10, pp.996-1007.

Syihab. Musnad, hadis no.1234.

United Nation Development Program (UNDP). 2006. Human Development Report 2006. Beyond scarcity: "Power, poverty and the global water crisis. *New York: UNDP*, p. 2. Available online at http://dspace.cigilibrary.org/jspui/bitstream/123456789/20135/1/Human%20Development%20Report%202006% 20Beyond%20Scarcity%20Power%20poverty%20and%20the%20global%20water%20crisis.pdf

United State Agency for Internatinal Development (USAID)-Indonesia Urban Water, Sanitation and Hygiene (IUWASH). 2012. Vol.002-Mei 2012. *IUWASH NEWS*. Available online at http://iuwash.or.id/wp-content/uploads/downloads/2013/08/IUWASH-News-02-Mei-2011-ID-low.pdf

United State Agency for Internatinal Development (USAID)-Indonesia Urban Water, Sanitation and Hygiene



(IUWASH). 2013. Vol.004-February 2013. *IUWASH NEWS*. Available online at http://iuwash.or.id/wpcontent/uploads/downloads/2013/08/IUWASH-News-04-Feb-2013-EN-low.pdf

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