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Equity financing and debt-based financing: Evidence from Islamic microfinance institutions in Indonesia

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A B S T R A C T

This paper investigates the impact of Islamic microfinance on rural households' welfare in Indonesia. Using a survey questionnaire, this study explores two group of financing in Islamic microfinance, equity and debt-based financing. A two-year panel dataset and a double difference-in-difference approach are used to examine the impact of the two Islamic microfinance groups on rural household in Indonesia. The study also evaluates *shari'a* compliance based on the national *shari'a* board of Indonesia. The study results indicate that both financing groups exhibit a positive and significant impact on rural households' income, but equity financing performed better than debt-based financing. Moreover, the *shari'a* compliance evaluation indicates that clients received financing that is comparable with the national *shari'a* board of Indonesia.

1. Introduction

A microfinance institution (MFI), in general, is an institution that can create financial inclusion for the poor, improve household welfare and reduce poverty (Littlefield et al., 2003; Berhane and Gardebroek, 2011). An MFI is a flexible institution that can easily adjust to the needs of local people, especially the poor (Ahmad and Ahmad, 2009). There are many types of MFI, such as non-governmental organizations, rural banks, village banks, and cooperatives (Karim et al., 2008). However, the main problem with formal financial institutions (e.g., banks) is that they demand specific requirements such as collateral, land and wealth, before granting credit (Li et al., 2011a). These requirements are major obstacles against the rural poor obtaining finance to support their livelihood. Access to finance is important and has severe economic and social impacts, especially on the rural poor. The social impacts include better education, health and housing for the poor (Hermes and Lensink, 2011).

Indonesia, an agricultural country with the world's largest Muslim population, faces severe poverty problems. In 2014, over 28 million Indonesians lived below the poverty line, i.e., 11.3% of the population (The World Bank, 2015). Islamic MFIs are financial institutions that provide financial access for poor people in rural areas and follow Islamic principles in their operation. Islamic MFIs can play a significant role in addressing rural poverty alleviation predominantly dominated by agricultural activity. The principle of Islamic MFIs, i.e., avoiding the use of interest, is an advantage in a Muslim majority country like Indonesia. Moreover, institutions that have *shari'a* compliance financial products can cater to the needs of traditional Muslim households in rural areas. Islamic MFIs

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can combine their products with charity-based funds raised from *zakah*[1] and *sadaqat*[2] that enable them to distribute funds to the poorest to help them to overcome poverty (Kaleem and Ahmed, 2009; Ahmad, 2002).

Islamic MFIs have grown rapidly in recent decades. Islamic MFIs have particular Islamic values that could be a solution for poor people, especially in rural areas, who are averse to borrowing, in part, because of their religious beliefs (Ahmad and Ahmad, 2009). The principles of Islamic microfinance are derived from Islamic law (Seibel and Dwi Agung, 2006). Islamic law specifies a financial contract without charging interest (*riba*) (Rahman, 2010a). Islamic MFIs provide financing products such as equity financing with profit and loss sharing mechanism (PLS) and debt-based financing products (non-PLS) (Dhumale and Sapcanin, 1999).

The development of Islamic finance institutions in the modern era started with the establishment of an Islamic bank in the Middle East in the 1960s (Ainley et al., 2007). The combination of Islamic finance and microfinance was first discussed in depth by Rahul and Sapcanin in 1999 (Akhter et al., 2009). Based on a study by Abdouli (1991), there are three basic Islamic finance contracts that could operate in an MFI to build successful microfinance programmes: *mudarabah* (profit-sharing), *musyarakah* (joint venture) and *murabahah* (cost plus mark-up). *Mudarabah* and *musyarakah* are equity financing whereas *murabahah* is debt-based financing.

In Islamic finance, equity financing based on PLS is distinguished from conventional finance (Azmat et al., 2015). Several studies have attempted to explain the benefit of equity financing in Islamic finance. However, very few empirical studies investigate the impact of Islamic equity financing on rural households' welfare. This paper aims to investigate the impact of equity and debt-based financing by Islamic microfinance and identifies which financing method has the greater impact on rural household welfare. This study also aims to analyse the *shari'a* compliance of Islamic MFIs' contracts based on the national *shari'a* board of Indonesia.

Using double difference-in-difference (DD) model, fixed effect regression, and two-year panel data set, the results indicating that equity financing has more positive impact on rural household welfare compare to debt-based financing especially on the change in income. This paper bridges the gap from previous literature in Islamic finance especially on identify the empirical impact from two financing mechanism in Islamic MFI; equity and debt-based financing.

The paper is organised as follows: Section 2 provides a description of characteristics of Islamic MFIs. Section 3 discusses the principles of Islamic microfinance. Section 4 provides the literature review of the paper. Section 5 discusses the methodology used to measure the impact of financing between equity and debt-based financing. Section 6 describes the data collection. Section 7 analyses the findings and provide discussions. Section 8 concludes the paper.

2. Characteristics of Islamic MFIs

According to Addae-Korankye (2012), microfinance provides financial services for poor people which are excluded from the formal financial sector such as banks. Microfinance covers financial products including savings, loan, and insurance. There are many types of MFIs worldwide, Table 1 presents most of the available types of microfinance globally. The first type of microfinance is project based, which is mostly funded by donors and is temporary. In general, the aim of such microfinance is to promote financial access to low income people and micro enterprises such as the microfinance development project by The World Bank in Morocco and Russia (The World Bank, 2013).

Non-profit organizations (NGOs) are another type of microfinance that mostly lack a legal framework. They cannot accept savings but, in certain cases, they can offer a savings product, example of this type is Opportunity International in Australia (Opportunity International, 2015). A cooperative is another type of microfinance where the ownership belongs to its members. It has savings and credit services for members, example for this type is Koperasi Simpan Pinjam (KSP) in Indonesia (Lapenu and Pierret, 2006).

A private company is a type of microfinance that consists of private and public capital. Private capital can be local (such as local banks, clients, and employees) and international (such as commercial banks, social investment funds, private commercial funds, etc.). A private company can also be structured with public capital from the local or national government, examples of this type are RDS Islami Bank Bangladesh Limited (IBBL) and Grameen Bank in Bangladesh (Rahman and Ahmad, 2010; Grameen Bank, 2015). A public entity is owned by the government or state and can be a shareholder company with shares owned by the public. This type of microfinance is governed by special laws or banking laws, the example of this type is Cajas in Municipales, Peru (Lapenu and Pierret, 2006; Gallardo, 2001; Mukherjee, 1997).

The sustainability and effectiveness of microfinance not only depends on its type, but also depends on the culture of the country. Some types of microfinance need special support to succeed, such as cooperatives or transformed NGOs (Seibel, 2005). For instance, special support in the form of effective regulation and supervision from an authorized party is needed to resolve issue on the effectiveness of members' control in cooperatives (Seibel, 2005).

Islamic MFIs differ from conventional MFIs. Islamic MFIs' products and services must be free from certain elements forbidden in Islam (Obaidullah, 2008; Chong and Liu, 2009). The forbidden elements preclude Muslims being involved in non-halal business activities, such as alcohol, pork and prostitution. Secondly, engaging in *riba* or interest is not allowed in Islam. Thirdly, *gharar* (uncertainty/lack of information disclosure) and *maysir* (gambling) are prohibited (Chong and Liu, 2009). Most Muslim scholars define *riba* as the premium that must be paid by the borrower to the lender along with the principal amount as a condition for the loan or for an extension of the loan's maturity (Chapra, 2006). An example of *gharar* is the sale of fish in a pond without any details such as quantity and quality, which may lead to uncertainty for the buyer (Chong and Liu, 2009).

Islamic MFIs are allowed to generate profit through two financing mechanisms, equity financing and debt-based financing. In

[1] Compulsory charity for Muslim (if their wealth exceeds the condition (nisab), equal to 85 g of gold and held for a year (Haul)).
[2] Optional charity.