International Journal of Business and Society, Vol. 20 S1, 2019, 210-220

THE EFFECTIVENESS OF LINKAGE PROGRAMS: CASE STUDY OF BMTs IN INDONESIA

Triani Fitriasari
Universitas Indonesia

Zuliani Dalimunthe♣
Universitas Indonesia

ABSTRACT

Despite the importance of microfinancing as a tool for alleviating poverty, formal financial institutions, such as banks, are reluctant to provide this type of financing. There is, therefore, a need to provide financing indirectly through linkage programs. Launched by Bank Indonesia on January 9, 2004, the linkage program is the first pillar of the Indonesian Banking Architecture, and serves as a comprehensive framework for the development of the Indonesian banking industry. The program provides financing through cooperatives to their members operating microbusinesses. This study was conducted to evaluate the effectiveness of linkage programs provided by Islamic banks for microfinancing through Islamic cooperatives known as houses of charity (*baitul maal wa tamwil*, BMT). This research was conducted by using a mixed qualitative and quantitative approach. Qualitative information was collected using in-depth interviews with the management and authorized officers from five BMTs that are knowledgeable about such cooperatives. The quantitative research was conducted by analyzing the cooperatives' financial statements and conducting a direct survey of the recipients of financing. The effectiveness of a microfinancing program is commonly measured by three aspects, known as the "the triangle of microfinance." These aspects are the extent to which the financing provides for the poor (outreach), whether it increases the income or assets of the target population (impact), and the business survival of institutions managing the financing (institution sustainability). We found that linkage programs had a positive impact, especially on improving the affordability of outreach in small and medium-sized but not in the large BMTs. We suggest that the Indonesian Bank or Indonesian Financial Service Authority should specifically encourage medium-sized cooperatives or BMTs to employ this program by providing more incentives for banks or reducing the barriers for BMTs to participate.

Keywords: Islamic microfinance institution; Triangle of microfinance; Linkage program; Cooperatives.

1. INTRODUCTION

Indonesia is a developing country with a population of 254.9 million. Based on national survey data (SUSENAS), for March 2016, 10.86% of the population (28.1 million) was classified as poor. Like many other developing countries, Indonesia needs to solve the problem of poverty. Meanwhile, the 2012 report of the Ministry of Cooperatives and SMEs shows that over 56 million or 99% of business units are categorized as micro-firms. This sector provides more than 107 million

♣ Corresponding author: Islamic Economic Program, Universitas Indonesia, FEB UI Campus, Depok, 16424 Indonesia; email: zuliani_d@ui.ac.id.

jobs or about 93% of all employment opportunities in the country. Unfortunately, this large group of business units can only contribute less than 60% of gross domestic product because it mainly consists of micro and small-scale firms.

The development of micro and small firms need strong financial support. Without financial support, micro and small firms may find it difficult to survive and expand their business scale. Several studies have shown that a strong financial institution has a significant impact on poverty alleviation in a country by reducing credit constraint for the poor (e.g., Miyashita, 2000; Khandker, 2005; Aideyan, 2009). However, despite the importance of microfinancing toward alleviating poverty, formal financial institutions, such as banks, are reluctant to provide financing for this sector which is, in fact, commonly known as the "unbankable" sector. Two important reasons can be cited behind such reluctance. First, micro-firms are perceived as being high-risk due to the high level of information asymmetry inherent in the sector. Second, the small-scale of finance being provided is costly to administer. In light of such issues, there exists a need to provide financing indirectly through more suitable methods and institutions, such as linkage programs.

The linkage program investigated in the current study is the first pillar of the Indonesian Banking Architecture (*Arsitektur Perbankan Indonesia*, API). Launched by Bank Indonesia on January 9, 2004, this program serves as a comprehensive framework for the development of the Indonesian banking industry. To implement the linkage program initiated by the Bank Indonesia, the State Minister of Cooperatives and Small- and Medium-Sized Enterprises then issued Ministerial Regulation No. 3/Per/M.UKM/III/2009 on General Guidelines of Linkage Programs Between Commercial Banks and Cooperatives (SMECD, 2009). This regulation also covers other linkage programs, including those between shariah commercial banks and shariah cooperatives. Shariah cooperatives—particularly those operating as savings and loan providers—are a type of Islamic microfinance institution widely operating in Indonesia. Through linkage programs, banks provide financing to the cooperatives (including shariah cooperatives) that, in turn, lend the funds to their members who own microbusinesses. Such linkage programs mean that commercial banks do not need to interact directly with the microenterprizes. Rather, cooperatives that accommodate microbusiness come from a cooperative's members.

Three aspects are commonly used to measure the effectiveness of a microfinancing program: (1) the extent to which the financing provides for the poor (outreach), (2) how it increases their income or assets (impact), and (3) the ability of the institutions to survive while managing the financing (institutional sustainability). The success or failure of microfinance institutions (MFIs) can, therefore, be seen from these three perspectives—sustainability, outreach, and impact—the so-called "triangle of microfinance" (Zeller and Sarma, 2002). Social objectives are the most crucial elements in Islamic microfinancing, and affordability, which is a crucial aspect of outreach, is of particular importance to Islamic micro-financers. A recent research conducted by Lahkar and Pingali (2016) found that, although the expansion of microfinance increases the risk of default, it improves the sustainability of microbusinesses. These findings indicate the importance of microfinance outreach in reducing poverty.

At present, thousands of cooperatives, with millions of members operate in Indonesia. However, there is little research into the adoption and effectiveness of the linkage program within this context. This study aims to fill this gap by specifically evaluating the effectiveness of linkage programs from Islamic banks for microfinancing via Islamic cooperatives called houses of charity (*baitul* *maal wa tamwil,* BMT). Shariah commercial banks need to cooperate with shariah microfinance institutions, such as BMTs, because such institutions are operationally able to directly access the owners of microbusinesses, often located in remote areas (Antonio, 2011) Furthermore, BMTs are also able to provide technical assistance to increase the chances of success of the micro-firms being financed. Therefore, given the importance of the role of shariah and BMT banks in the success and sustainability of microbusinesses, they must be able to work together to ensure the success of microbusinesses.

The second section of this article describes the literature studies related to the idea of Islamic microfinancing and the triangle of microfinance. The third section presents the methodology used, and the fourth section presents the results and discussion. The last part of the paper presents the conclusions, followed by a list of references.

2. LITERATURE REVIEW

2.1. *Role of Microfinancing*

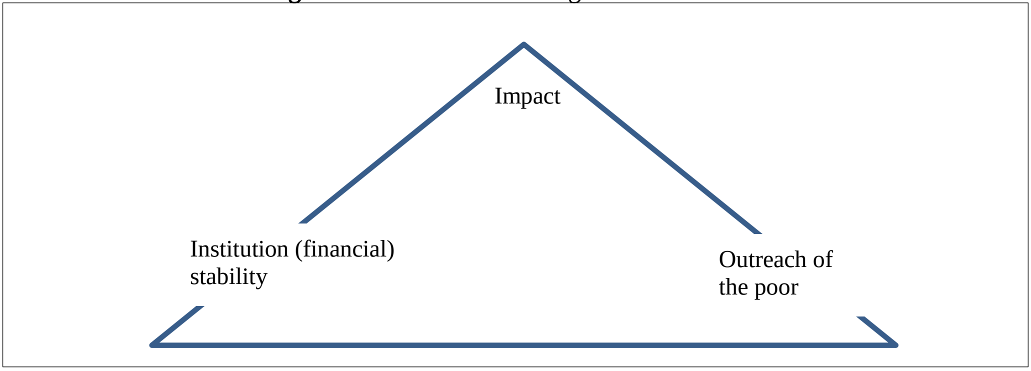
According to the definition used at the Microcredit Summit (1997), “microcredit” is a small-scale lending program for very poor citizens managing the business to generate income, thus allowing them to take care of themselves and their families. Microfinancing has become an important tool in alleviating poverty, particularly in developing countries. Li, Squire, and Zou (1998) state that financial sector development significantly promotes poverty reduction, because financial development reduces credit constraints on the poor. Similar conclusions are also expressed by Miyashita (2000), Khandker (2005), Aideyan (2009), and Akhter and Daly (2009).

Despite the importance of microfinancing for the alleviation of poverty, formal financial institutions (e.g., banks) are reluctant to provide financing to this sector. Micro-firms are perceived as being high-risk due to the high level of asymmetric information involved in the form of problems both of adverse selection and moral hazard. Another crucial problem in implementing microfinancing through well-established financial institutions like commercial banks is the high administrative cost. Specifically, the nature of small-scale financing leads to high administration costs for microfinancing. To overcome this problem, there is a need to provide microfinancing indirectly, through more informally based financial institutions.

2.2. *The Triangle of Microfinance*

The effectiveness of a microfinancing program is commonly measured using three aspects, known as the triangle of microfinance. These aspects are (1) the extent to which the financing provides for the poor (outreach), (2) how it increases their income or assets (impact), and (3) the continuing viability of the institutions managing the financing (institution sustainability). Zeller and Sharma (2002) argue that goals related to financial policy have changed as paradigms shift. Initially, MFIs focused on increasing outreach to the poor, increasing the breadth of the outreach, and reaching the poorest of the poor (the depth of the outreach). However, the goal of financial sustainability for MFIs is also very important. Research from Ohio State University and several other institutions in the 1980s reported that, to become a successful financial institution, it must be financially sustainable, that is, it must be able to cover its costs. Some analysts, such as Rhyne and Otero (2007), argue that increasing the depth of reach and financial sustainability are harmonious goals. However, Hulme and Mosley (1996) argue that there appears to be a trade-off between increasing outreach, particularly the depth of reach, and achieving financial sustainability. The trade-off stems from the high transaction costs of MFIs in obtaining information about the creditworthiness of the poor. However, the sustainability of financial institutions and affordability to the poor are only two of the policy goals characterizing the latest developments in microfinance. When policy interventions and direct support for institutional development require public investments, questions arise about pay-offs and impacts, particularly regarding economic growth, poverty alleviation, and food security.

Figure 1: The Critical Triangle of Microfinance



Source: Adapted from Zeller and Sharma (2002)

Figure 1 represents the triangle of microfinance, namely, outreach to the poor, financial sustainability, and impact. All MFIs seek to meet these three goals, but most emphasize one particular purpose over the other two. Some MFIs may have a major impact on the welfare of the community, but their outreach is limited. Others may have little impact on the poor but are financially sustainable. Alternatively, a third possibility, mentioned earlier, is that MFIs can reach the poor broadly and deeply but with poor financial sustainability for the institutions themselves.

Aside from the possible trade-offs between the three objectives of microfinance institutions, they also offer potential synergies. First, financial sustainability may be perceived by clients as an important indicator of the permanence of an MFI, which consequently influences their decisions concerning the viability of becoming long-term clients. Thus, improved financial sustainability can positively affect affordability. Second, seeking financial sustainability makes MFIs sensitive to client demand, which may lead to product upgrades, improved operations, and better affordability. Better financial products, in turn, result in greater economic benefits to clients, thus leading to greater impact.

2.3. Indonesia's Linkage Programs

The linkage program was launched to extend financing to micro and small businesses. MFIs, particularly cooperatives, are likely to know their members better than commercial banks while also possessing more skills at, and experience in, providing finance to the micro sector. A linkage program represents a mutually beneficial cooperation of all parties involved. With the aid of linkage programs, commercial banks with limited networks and infrastructure can reach micro and small businesses that are proven to be resistant to economic crises. In turn, MFIs that have limited funds will be greatly helped by linkage programs, enabling them to channel financing to micro and small firms. Such programs are also clearly profitable for those micro and small businesses that have difficulty accessing funding support from commercial banks as they are typically characterized as unbankable.

Indonesia's linkage program is a method of partnership financing, in which financing is channeled through a partner company (two-step financing). This program was implemented based on the Regulation of the State Minister of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia Number: 03/Per/M.KUKM/III/2009 on the General Guidelines of Linkage Programs between Commercial Banks and Cooperatives. According to this regulation, a linkage program is a cooperative program between commercial banks and cooperatives, which are designed to improve access of micro and small firms to financing. In relation to this, shariah cooperatives serving as partners in a linkage program are required to meet several conditions: (a) they should adopt shariah systems in daily operations, (b) they have been legally established for at least two years, (c) they have had positive profit sharing in place for the past two years, (d) they have more than one billion rupiahs of financing audited by a public accountant, (e) they must have non-performing financing (NPF) of lower than 5%, and (f) they must have a minimum of 100 members.

3. RESEARCH METHOD

This research was conducted using a mixed-method qualitative and quantitative approach. The qualitative method used is that of a case study, and the quantitative method is the analysis of financial statements. Case study research involves the intensive, detailed, and in-depth study of a particular organization, institution, or phenomenon with data obtained from the company, from secondary sources, or from conducting in-depth interviews with people who are knowledgeable about the phenomenon (Malhotra, 2007). The objective of the case study approach used here was to reveal detailed and in-depth information on the impact of the linkage program implemented by shariah cooperatives in Indonesia. The qualitative information in this study was collected using in-depth interviews with the management as well as authorized officers deemed knowledgeable about the cooperatives. The quantitative research was conducted by analyzing the cooperatives' financial statements and by conducting direct surveys of the recipients of financing. These two approaches are complementary in their approach to the three aspects of the triangle of microfinance: outreach, sustainability, and impact.

In investigating outreach, managers of the cooperatives were interviewed to ascertain whether there had been an increase regarding either the average nominal amount of financing given to members or the number of recipients of microfinancing after the institution obtained funds from the linkage program.

The sustainability of MFIs was measured by evaluating profitability levels. Profitability is important for a company if it is to maintain its long-term viability. This is because profitability indicates whether a business entity has good prospects for the future. The measurement of profitability uses various indicators, such as operating profit, net income, return on assets (ROA), and return on owners' equity. As mentioned previously, one analytical tool that can be used to measure sustainability is ROA or the net income for one year divided by total assets for the year. ROA data from several years were used for the analysis.

To evaluate the impact felt by members upon receiving financing from shariah cooperatives, the authors conducted interviews with financing recipients from the two shariah cooperatives investigated in this study, namely, members of the KSPPS *Tamzis Bina Utama* (*Tamzis*) and BMT *Bersama Kita Berkah* (BMT BKB). The basis for the selection of these two cooperatives was that the dominant financing provided by both was productive financing for business capital. This provided an impetus to discover the impact felt by cooperative members on the sustainability of their businesses after receiving such financing. Owing to the limited time available for the study, only 17 beneficiary members were interviewed, including 12 members of Tamzis and five members of BMT BKB. Interviews were conducted to discover whether their involvement in the financing increased their income, their assets, and/or the scale of their businesses.

The research was conducted on five organizations: KJKS *Berkah Madani*, BMT *Bersama Kita Berkah*, KSPPS *Ar Rahmah*, BMT *Al Azhar*, and KSPPS *Tamzis*. All the cooperatives were committed to the linkage program and toward fulfilling the ministry requirements and regulations. All interviews and data collection were accomplished during the first semester of 2017. In this study, the terms “shariah cooperatives” and “BMT” are used interchangeably.

4. RESULTS AND DISCUSSION

To meet the objectives of the study, the five BMTs studied were divided into three groups by their average assets during the period 2012–2016. The groupings included two small BMTs, with assets of 6–7 billion IDR; two medium-sized BMTs, with assets of 11–12 billion IDR; and one large BMT, with assets of approximately 425 billion IDR.

Regarding liabilities, BMTs receive financing via three types of liabilities: (a) funds derived from principal savings (*simpanan pokok*) and compulsory member savings (*simpanan wajib*), (b) voluntary savings, and (c) financing received from linkage programs. Table 1 shows the portion of linkage program funds as a proportion of all sources of the cooperatives’ liabilities.

Table 1 shows that linkage program funds have an important role in BMT operations. In the two small BMTs, program financing covers 40.59% and 53.94% of their total liabilities, while for large BMTs, this figure is only 13.26%. In the smallest proportion found, in medium-scale BMTs, linkage program funds cover less than 10% of liabilities. The following discussion looks at how the triangle of microfinance fits with the linkage program.

Table 1: The contributions of linkage programs to sharia cooperatives

Cooperatives name	Size	Average total assets (billion IDR)	Average liabilities from Linkage Program
Shariah cooperatives *Berkah Madani*	small	7.010	40.59%
BMT *Bersama Kita Berkah*	small	6.307	53.94%
Shariah Cooperatives *Ar Rahmah*	medium	11.844	7.7%
BMT *Al Azhar*	medium	12.145	9.37%
Shariah Cooperatives *Tamzis Bina Utama*	large	425	13.26%

Source: Cooperatives' Financial Statements

4.1. The Triangle of Microfinance: Outreach

Table 2 shows the triangle of microfinance outreach aspect in relation to the linkage program. The impact of outreach is seen in the greater number of financing recipients or in an increase in the nominal average of the financing provided.

Table 2: Linkage program on outreach

Cooperative's name	Amount of financing	Recipient of financing (members)
Shariah cooperatives Berkah Madani	5–15 M IDR (not change)	574–857 (increase)
BMT Bersama Kita Berkah	2–5 M to 5–10 M IDR (increase)	932–1.833 (increase)
Shariah Cooperatives Ar Rahmah	3–5 M to 5–10 M IDR	658 (not change)
BMT Al Azhar	1 M to 5 M IDR (increase)	833 (not change)
Shariah Cooperatives Tamzis Bina Utama	5 M IDR (not change)	200.000 (not change)

Source: Interview with cooperatives' management

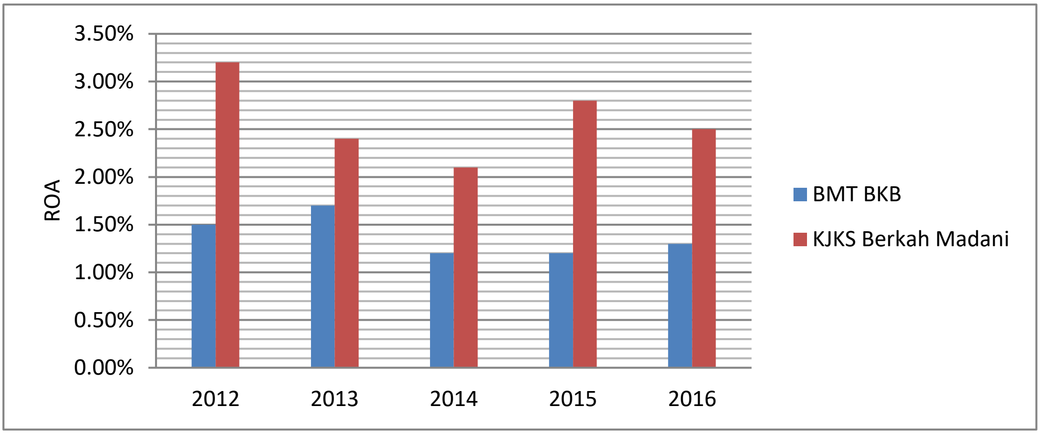
The number of beneficiaries increased in the two small BMTs, namely, KJKS Berkah Madani and BMT BKB. These two BMTs acknowledge the increase in members receiving financing after the implementation of the linkage program, even though the respondents could not verify the increase in average amount of financing for each recipient. Meanwhile, for the medium-sized BMTs, the increase in outreach occurred especially in the form of an increase in average financing per member. BMT Ar Rahmah reported an average increase in financing from 3–5 million IDR per application to 5–10 million IDR, whereas BMT Al Azhar reported a higher rate of increase, from 1 million IDR per application to an average of 5 million IDR per application.

In contrast to the previous four BMTs, where the linkage program contributed to an increase in nominal financing given to the beneficiary members, KSPPS Tamzis Bina Utama's linkage program funding did not lead to an increase in nominal averages. This is because the linkage program followed by Tamzis is only accessed at times of peak demand, such as just before the month of Ramadan and the start of the new school year. During peak season, BMTs have a higher demand for funds, which are difficult to obtain entirely from internal sources, leading them to access financing from shariah commercial banks through the linkage program.

4.2. Triangle of Microfinance: Sustainability

Hermes and Lensink (2011) note that one tool for measuring the sustainability of MFIs is their ROA. A profitability measurement, ROA is net profit in one year divided by total assets for the same year. Figures 2–4 show the ROAs of the BMTs in this study.

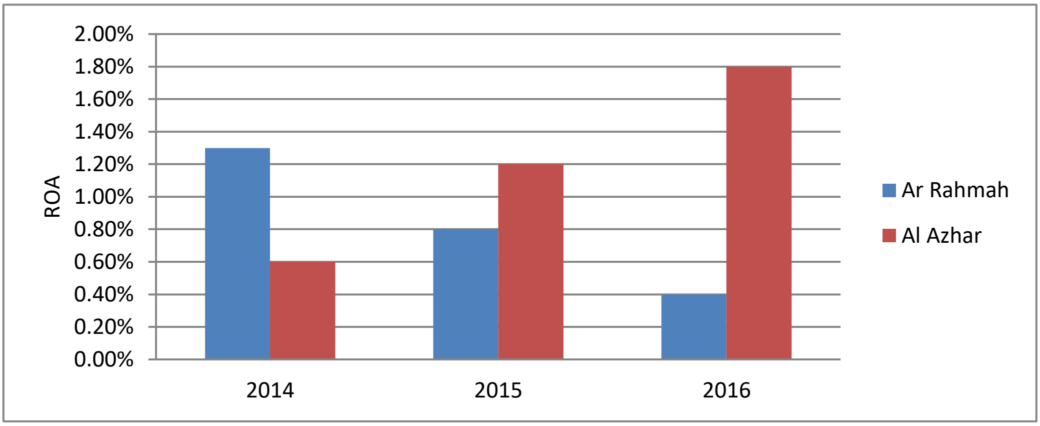
Figure 2: The Critical Triangle of Microfinance



Source: Cooperatives' Financial Statements

ROAs of the small BMTs during 2012–2016 was relatively stable, at approximately 1.5% for BMT BKB and 2.5% for BMT Berkah Madani, as shown in Figure 2.

Figure 3: ROAs of Medium BMTs

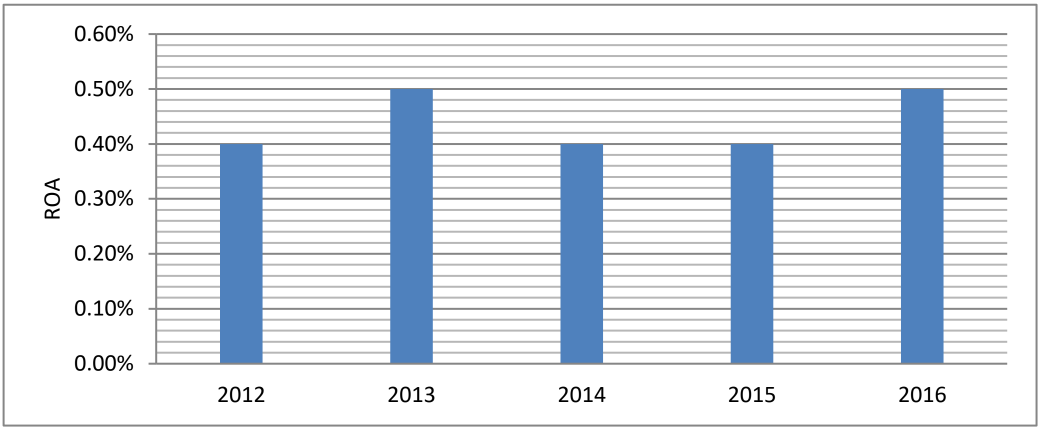


Source: Cooperatives' Financial Statements

Unlike small BMTs, the dynamic in medium-sized BMTs follows a different pattern. The ROA of BMT Ar Rahmah decreased for the last three years of the studied period. In 2014, ROA was 1.3%

and fell to 0.8% and 0.4%, respectively, in the following two years. Viewed from the perspective of the previous discussion, the contribution of the fund linkage program to the funding sources of BMT Ar Rahmah during these three years was only 7.7%. When compared with the other four cooperatives, this contribution was the smallest. Furthermore, BMT Al Azhar's ROA continued to increase during the last three years, by 0.6%, 1.2%, and 1.8%, respectively. These findings indicate that the linkage program assisted the BMTs to reach stable ROAs.

Figure 4: ROA of a Large BMT



Source: Cooperatives' Financial Statements

Figure 4 describes the ROA of a large BMT. ROA stability is also present in KSPPS Tamzis. Although it did not use linkage programs as its main source of funding, this program did stabilize its ROA value. Figure 4 shows the consistency of Tamzis's ROA between 2012 and 2016, with fluctuations restricted to 0.4% and 0.5%. Furthermore, Tamzis maintained the scale of its business and continued to provide financing for its members with larger enterprises.

4.3. Triangle of Microfinance: Impact

Table 3 presents data on the perceptions of financing recipients regarding the impact of financing from the shariah cooperatives (or BMTs). The perceived impact is based on member perspectives across three categories after receiving the financing: increased income, increased assets, and increased business scale. Of the sample, 16 interviewees (94.11%) acknowledged a higher income that allowed them to meet daily needs as well as send their children to school. Furthermore, ten interviewees (58.82%) stated that they increased their assets by buying motorcycles and household appliances. However, only 11 of those interviewed (64.7%) stated that they had been able to increase the scale of their businesses. One of the funding recipients interviewed stated that he did not feel any impact regarding increase in income, assets, or business scale after receiving financing from BMT. In this particular case, the owner received large amounts of financing to open a new branch for his business, but in the middle of a business trip, bankruptcy occurred before he managed to pay off the BMT financing.

Table 3: Impact of Linkage Program

Aspects	Frequency	Percentage
Increase in income	16	94.11
Increase in Assets	10	58.82
Increase in business scale	11	64.70

5. CONCLUSIONS

The Indonesian Central Bank has introduced the linkage program to increase financing access of micro-firms from commercial banking indirectly through cooperatives, including shariah cooperatives. In this paper, we evaluate how this program implemented Islamic banks through Islamic cooperatives or BMTs in Indonesia. Findings indicate that the linkage programs had a positive impact on improving the affordability of outreach in four of the evaluated shariah cooperatives but not in the large BMT. The small- and medium-sized BMTs used linkage funds to increase the nominal amount of financing that they provided, as well as the number of financing recipients, while the large BMT only used linkage funds as reserves in periods of peak demand. Regarding sustainability, four of the observed BMTs showed relatively stable ROAs. However, a different picture is seen in BMT Ar Rahmah, which is the BMT with the smallest financing portion from linkage funding in comparison with other BMTs and the one with the lower ROA compared with others. However, further research is needed to confirm this finding.

Furthermore, using data obtained from interviews with loan recipients, approximately 94.11% reported an increase in income, 58.82% reported an increase in assets owned, and 64.70% reported an increase in the scale of business. These findings indicate that linkage funds help in maintaining the sustainability of BMTs. As a policy implication, we suggest that the Indonesian Bank or Indonesian Financial Service Authority should specifically encourage medium-sized cooperatives or BMTs to employ this program by providing more incentives for banks or reducing barriers for BMTs to participate. Introducing such a policy could increase the outreach of microfinancing and its positive impact to alleviate poverty while maintaining the sustainability of microfinance institutions. However, this study did not analyze the cost of funds provided by linkage programs nor did it evaluate the impact of linkage programs on NPF. Hence, further research is needed concerning these issues.

ACKNOWLEDGMENT

This research was conducted with the support of Universitas Indonesia through the PITTA program 2017. We thank all the contributing parties who assisted in the completion of this research.

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