ADVANCING RURAL MICROFINANCE THROUGH LOCAL GOVERNMENT: SOCIAL COMMITMENT AND FINANCIAL SUSTAINABILITY IN RIAU PROVINCE OF INDONESIA

AHMAD RIFAI*1,2, GOH SOO KHOON² AND WONG KOI NYEN³

¹University of Riau, Indonesia, Kampus Binawidya Km. 12, 5 Simpangbaru, Pekanbaru, 28293 Riau, Indonesia. ²Centre for Policy Research and International Studies, Universiti Sains Malaysia, 11800 USM Pulau Pinang, Malaysia. ³Department of Economics and Finance, Sunway University, Malaysia, No. 5, Jalan Universiti, Bandar Sunway, 47500 Selangor Darul Ehsan, Malaysia.

*Corresponding author: ahmad.rifai@lecturer.unri.ac.id

Abstract: Indonesia's poverty structure is asymmetrical, which means heavy on the rural poor and light on the urban poor. The Riau Province of Indonesia is no exception. The poor are concentrated in the rural areas. Hence, rural MFIs such as UED-SP MFIs are seen as an important tool for rural poverty reduction and rural development. However, most of the large, mature and regulated MFIs tend to be financially sustainable (Hermes et al., 2011). This paper aims to ascertain whether the UED-SP MFIs are sustainable microfinance programmes, given that they are state-owned, not-for-profit institutions, with only six years of experience in microlending. UED-SP MFIs are largely driven by their social mission rather than their financial performance. This study finds that the rural MFIs are able to accomplish the social mission with financial sustainability. In 2015, their performance in financial sustainability and depth of outreach were comparable to the 2009 MFI Benchmarks at all levels, namely, the World MFIs, the Rural Bank Type and the Asian MFIs. The success of the rural MFIs to serve the poor groups such as rural women and rural agricultural microenterprises depends on several key success factors. One of the factors is that their microfinance operations are run on a set of guiding principles with sound lending practices.

Keywords: UED-SP MFIs, rural microfinance, financial sustainability, outreach, benchmark.

Introduction

At large, microfinance institutions (MFIs) play an important role in the informal financial sector. They provide credit services to the poor and the hard-core poor in the rural areas. In the rural areas, these poverty groups cannot gain access to financial intermediaries such as conventional banks because they do not have the savings nor the creditworthiness (Ledgerwood, 1999; Morduch, 1999; ADB, 2000; Robinson, 2002; Marr, 2004). MFIs are supposed to be an instrument that alleviates poverty and supports the rural and regional economic development programmes undertaken by the state as well as by the local governments. An MFI serving as many poor as possible (hereafter referred to as breadth of outreach) and the poorest of the poor (hereafter referred to as depth of outreach) would be regarded as a benevolent organisation. This function is more important than just making pure profits. However, focusing more on social performance of outreach may cause notfor-profit MFIs to be unsustainable financially to carry out their social mission of outreach. Likewise, a for-profit MFI, which tends to focus more on financial performance outcome, may not be able to fulfil its social obligation to improve the lives of the rural poor. Hence, the potential trade-off between financial sustainability and outreach is a cause for concern for not-forprofit as well as for-profit MFIs, given that outreach cannot operate on a stand-alone basis without financial sustainability, and vice versa. The management and operations of an MFI

are constrained by the double bottom lines, namely the social performance outcome and the financial sustainability outcome. Therefore, the MFIs need to balance between their financial sustainability and their outreaching operations when delivering a sustainable rural microfinance programme. This balancing is a delicate balancing exercise for the MFIs regardless of whether they are for-profit or otherwise.

Retrospectively, Indonesia is renowned for its dynamic microfinance sector, which serves as an important channel to provide credit services to the poor in the rural areas. Seibel and Parhusip (1998) pointed out that successful MFIs with sustainable microcredit services in Indonesia have usually invented a host of instruments and strategies that differ from those used in banking with urban or rural non-poor. In the era of intergovernmental decentralization in Indonesia, the responsibility to reduce poverty has been delegated to the local governments. However, Adam and von Pischke (1992) told anecdotes about microcredit enterprise programmes run by governments and donor agencies that they lost money owing to overstaffing and having loan recovery problems (mainly due to loans made without considering creditworthiness). In this regard, can not-for-profit state-owned MFIs in Indonesia achieve outreach without sacrificing financial sustainability? Motivated by the discussion above, the present paper aims to use Usaha Ekonomi Desa Simpan Pinjam (UED-SP) (Rural Economic Enterprises-Savings and Lending) in Riau Province of Indonesia as a case to ascertain whether or not the primary objective of breadth and depth of outreach could be achieved while maintaining their selfsustainability. The primary reasons motivating the research team to choose Riau Province as a site for the field study are as follows. Firstly, the poverty in Riau is still high with the bulk of the poor is concentrated in the rural areas. Secondly, UED-SP MFIs serving the clients in Riau are not only state-owned but also the largest in terms of coverage of microfinance services in the province. Thirdly, since the responsibility to reduce rural poverty has been delegated to the

local governments in Riau, it is timely to study how effective the state-owned microfinance programme is in terms of reaching out to the rural poor while being self-sustainable. Lastly, ever since the launch of UED-SP MFIs in Riau, there has not been any comprehensive performance assessment conducted for the rural MFIs by either the internal or external parties. Nevertheless, the performance assessment for the rural MFIs were conducted partially, either selectively examining their financial performance or social performance in Rokan Hulu (Haryanto & Isril, 2013; Masri, 2014; Perdana *et al.*, 2014; Yunaiti *et al.*, 2014).

If indeed not-for-profit state-owned MFIs could perform the balancing act between the conflicting objectives outreach and financial sustainability, the findings could shed light on the success factors (e.g., the guiding principles and operational guidelines of MFIs) that may lead to a sustainable rural microfinance programme. Conversely, if the not-for-profit state-owned rural MFIs fail to achieve a balance between outreach and financial sustainability, the findings may suggest potential strategies or good practices needed to address the challenges that have caused the imbalance between the dual objectives. Hence, the contributions of the present study are threefold. Firstly, it offers useful lessons and prospects to the future of rural microfinance programmes that aim to fill the poverty gap while maintaining sustainable operations, especially for both the Riau Province and the microfinance sector for Indonesia since the intergovernmental decentralisation. Secondly, the empirical evidence could shed light on the success factors that result in sustainable rural microfinance programme the programme's design, the guiding principles and operational guidelines that can assist policy makers to design sound microfinance programmes for other provinces in Indonesia. Finally, the findings would benefit the stakeholders (e.g. donor agencies, non-profit organisations (NGOs) and governments) and other developing countries in terms of using UED-SP MFIs as a successful social business model to alleviate poverty.

Material and Methods

A First Look at MFIs in Riau Province

Riau Province is situated in the centre of Sumatra Island and is one of the 34 provinces in Indonesia. Its population n 2015 was over 5.5 million, accounting for 2.3% of the national population (BPS, 2015). Between 2000 and 2010, its annual population growth rate was 3.58%, which was higher than the national population growth rate. As such, the increase in the poverty rate in Riau would be faster than that at the national level. In view of the asymmetrical poverty structure in Riau, namely the poor tends to concentrate in the rural areas rather than in the urban areas (BPMPD, 2009a), Program Pemberdayaan Desa (Rural Community Empowerment Programme) in 2005 introduced rural MFIs, which are known as UED-SP MFIs. The UED-SP is the acronym of Usaha Ekonomi Desa Simpan Pinjam or Rural Economic Enterprises - Savings and Lending, to serve the financial needs of rural poor and disadvantaged communities of the Riau Province.

The UED-SP MFIs aim to provide microloans to the rural communities to promote their economic activities and to create employment. Besides, this institution encourages rural savings and to prevent the rural poor borrowing from illegal moneylenders. UED-SP MFIs are implemented based on five principles, which are: (a) pro-poor - that all activities should benefit the poor group in the rural community, (b) transparency - that all information about the UED-SP MFI activities should be open and can easily be accessed by all community members, (c) participation - that the community members are involved in conducting all UED-SP MFI activities from socialization, planning, execution, controlling and to ensuring all activities to continue run well in the future, (d) decentralisation – that the village government has the authority to manage funds independently, including planning and implementing rural development activities and accountability of funds and (e) competitive fairness-that decisions for funding are taken on competitive bases among all eligible activities (borrowers). Every proposed activity should be reviewed and selected based on prioritised community needs. The dominance of the individual and group interests should be put aside. A key feature of UED-SP MFIs lies with its entity, that is, it is owned by the state and it is responsible for poverty reduction, as the programme has been decentralised to the local governments (provincial and regencies' governments) (Syarif, 2006). For instance, each local government provides IDR500 million as the initial capital to UED-SP MFIs with the stipulation that their officials must maintain a certain amount of capital as an ongoing concern. To apply for a loan from UED-SP MFI, an individual or a group, is required to submit a business plan that is administratively and economically feasible. As for a microenterprise, it must provide a business proposal that demonstrates that it has the potential to benefit the poor directly or indirectly. According to the Operational Guidelines of the Rural Community Empowerment Programme (BPMPD, 2009a), to be eligible for a UED-SP MFI loan, the applicant (villager) must have resided in the village for a minimum of five years; must be an active member of UED-SP MFI with at least IDR50,000 mandatory savings; and must provide a collateral. In addition to financial intermediation, UED-SP MFIs provide social intermediation services such as group formation, development of self-confidence and training in financial literacy and management capabilities among the members of a group.

Table 1 shows that in 2013, there were a total of 989 UED-SP MFIs operating over 12 regencies in the Riau Province. However, the number of UED-SP MFIs varies with each regency owing to the disparity in political will and varying budget allocated to each regency. In the case of regencies like Rokan Hulu and Dumai, every village has a UED-SP MFI that serves its local villagers. On the other hand, regencies that have less than 50% MFI coverage in their respective villages were in Indragiri Hilir, Kampar, Bengkalis and Rokan Hilir, while Kuantan Singingi, Indragiri Hulu, Pelalawan, Siak, Kepulauan Meranti and Pekanbaru had more than 50% of their villages served by the MFIs.

Regency	No. of	No. of UED-SP MFIs	(0(): 0010	Poverty Rate (%) *		
	Villages	in 2013	(%) in 2013 -	2005	2013	
Kuantan Singingi	229	130	56.8	23.0	11.3	
Indragiri Hulu	194	98	50.5	17.3	7.5	
Indragiri Hilir	236	71	30.1	16.0	7.9	
Pelalawan	118	89	75.4	22.4	12.0	
Siak	131	117	89.3	7.6	5.5	
Kampar	245	108	44.1	13.0	9.0	
Rokan Hulu	153	153	100.0	26.5	10.9	
Bengkalis	155	50	32.3	8.6	7.6	
Rokan Hilir	183	34	18.6	9.5	7.7	
Kepulauan Meranti	101	54	53.5	0**	35.7	
Pekanbaru	58	52	89.7	2.4	3.3	
Dumai	33	33	100.0	8.4	5.0	
Riau Province	1,836	989	53.9	14.7	7.8	

Table 1: Number of UED-SP MFIs and poverty incidences in the Riau Province

Source: BPS Riau (BPS, 2014); PPD Report (BPMPD, 2014) and SIMPADU Penanggulangan Kemiskinan (Sekretariat SIMPADU PK, 2015); *poverty rate measured in macro poverty data; **belonged to Bengkalis Regency.

The local governments (provincial and regency's government) do not provide financial support for the UED-SP MFIs. Therefore, all the UED-SP MFIs must creatively develop their financial products and services to generate revenues and profit to cover their operational costs and to support their financial sustainability, such as leasing, money transfer and online bill payment. Accumulation of capital from the borrowers' savings, income from the low loan interest rates and profit from other financial products become additional capital that can be disbursed again to the borrowers. Therefore, more funds are available to serve the financial needs of the village members. As a result, the UED-SP MFIs become stronger and can reach out to more of the poor. Significant profit and good capital accumulation provide more shares to be disbursed to the borrowers and supports the sustainability of the rural financial development in Riau Province.

It is worth highlighting that Rokan Hulu has been consistent in developing UED-SP MFIs not only as a rural development tool but also a poverty reduction tool. The poverty rate in Rokan Hulu regency was the highest of all the regencies in 2005, which was 26.5% (Table 1). Until 2013, the UED-SP MFIs in Rokan Hulu has been well developed, proven by an average increase of all UED-SP MFIs' initial capital of about 76%, on time repayment of loans (averaging 94% at all UED-SP MFIs) and low non-performing loans (NPLs) (averaging 10% at all UED-SP MFIs). These good financial performances might be due to the strong focus of the UED-SP MFIs on their financial sustainability. However, since the launch of UED-SP MFI in 2005, neither internal nor external evaluation has been performed on the rural MFIs.

A Conceptual Framework for Financial Sustainability and Outreach

In principle, reaching out to the poor in terms of breadth and depth while remaining sustainable financially are sound MFI practices. In practice, there is a potential trade-off between its outreaching and its financial sustainability. The conventional paradigm of microfinance contends that the mission of an MFI is to provide financial services to the low-income people (such as households and microentrepreneurs). The aim to increase their productivity so that poverty can be reduced (Morduch, 1999; Ledgerwood, 1999; Robinson, 2002). The success of microfinancing on poverty alleviation depends on how effective it targets the poor (Khandker, 1998). To ensure a microfinance institution plays a part in poverty reduction, it is deemed necessary to improve

the microfinance institution's structure through sustained outreaching to the larger number of the poor (Miyashita, 2000). However, if an MFI only targets on the outreaching, it can be costly because loan sizes need to be reduced to cater for a larger number of poor borrowers, who do not have adequate collaterals. Hence, focusing only on the outreach dimension may cause the MFI operations not financially sustainable. Likewise, if the MFI only focuses on the financial sustainability dimension in serving the non-poor borrowers because they can afford larger loans, the outreach mission may be compromised by profitability. Furthermore, the poor may opt out of the microfinance programme because they are more risk averse than the non-poor. Lopatta et al. (2017) found there was a negative relationship between the outreach and profitability of the MFIs, especially for non-profit-oriented MFIs.

The new paradigm of microfinance has major concerns in sustainability and the independence of microfinance subsidies, whereby a successful microfinance facility is one that has a good performance in terms of its double bottom line, that is, financial sustainability performance and outreaching performance. Rhyne (1998) pointed out that to serve the poor households on sustainably, sustainability is the means to achieve it [outreach]. Thus, the new paradigm of microfinance facilities will have a significant impact on poverty reduction. Robinson (2001) stated that the new paradigm of microfinance facilities requires the MFIs to have the ability to provide financial services without the ongoing subsidy. This would ultimately enable the MFIs to operate commercially and attain wide outreaching sustainability. The potential trade-off between the depth of the outreaching and financial sustainability has been noted, but trade-off may also exist between the impact and the financial sustainability (Zeller & Meyer, 2002). A survey conducted by Hermes et al. (2011) found that only 1% to 2% of all MFIs in the world (i.e., some 150 organisations) are financially sustainable. The remaining group of MFIs (70% of all organisations) consist of smaller, start-up organisations, which are still

far from being financially sustainable, and are therefore, (heavily) dependent on subsidies.

Based on the aforementioned postulation, financial sustainability becomes a necessary condition f-or MFIs to carry out the outreaching mission. In general, financial sustainability can be achieved when the operating costs in providing financial services are covered from revenue earned such as interests and fees paid by the borrowers, or they operate at their breakeven point (Saltzman et al., 1998; Forster et al., 2003). In the view of Ledgerwood's (1999), MFI sustainability is more about cost recovery and ultimately gaining profitability. As in the perspective of Rosenberg (2009), financial sustainability is the ability of the MFIs to generate enough profit to maintain and expand services in the absence of subsidies. According to Nyanzu et al. (2018) one of the factors that contribute to the achievement of the MFIs' is the regulations. Regulations such as collected deposit from the borrowers help to improve the sustainability and the breadth of outreach of the MFIs in Sub-Saharan Africa (SSA). Likewise, Duguma and Jigin (2018) found that deposit mobilization significantly influenced on the financial sustainability of the rural savings and credit cooperatives in Ethiopia.

Methodology

The analysis of the microfinance efficiency can be performed using methodologies such as Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA) (Widiarto & Emrouznejad, 2015; Widiarto, et al., 2017; Fall et al., 2018). However, Fall et al. (2018) cautioned that there are difficulties in applying DEA and SFA. Although the former is a nonparametric approach, it is highly sensitive to data, sample size, and measurement errors. While SFA, by contrast, requires the specification of a production function, which is difficult to be specified because there exist varying situations in microfinance. Since the primary aim of the present study is to ascertain the financial sustainability of UED-SP MFIs in Rokan Hulu rather than their efficiency, four categories of financial indicators will be used,

namely, sustainability, profitability, liquidity and operational efficiency. To determine the sustainability of an MFI, the operational selfsufficiency (OSS) indicator can be employed, to assess whether the MFI is self-sufficient or whether it requires external support such as subsidies. To be more precise, the OSS indicator could reveal the degree to which internally generated operational revenue covers all operating expenses from the UED-SP MFI's core business of providing financial services. Thus, it demonstrates whether the UED-SP MFIs are earning sufficient revenue (through interest, fee and commission income) so as to cover their total costs-financial costs, operational costs and loan loss provisions. The OSS is computed as the ratio of total revenue to total expenses. If the resulting OSS is greater than 100%, the MFI is regarded as operationally self-sufficient. Bayai and Ikhide (2016) in their conceptual view stated that the OSS is a popular indicator that had been used by researchers to measure how adequate MFI revenues are to cover the total costs. Besides OSS, return on assets (ROA) and return on equity (ROE) had been employed by researchers to measure the financial profitability and sustainability of the MFIs (Ejigu, 2009; Bogan, 2012, Quayes, 2012; D'Espallier *et al*, 2013; Kipesha & Xianzhi, 2013; Sekabira, 2013; Bayai & Ikhide, 2016). The return on assets (ROA), return on equity (ROE) and portfolio yield (Yield) are appropriate indicators to measure profitability of an MFI. They are computed as the ratio of net operating income to total assets, ratio of net operating income to total equity, and ratio of net operating income to gross loan portfolio, respectively. These profitability indicators could collectively summarise the earning performance of an MFI.

On the question of whether an MFI has sufficient liquidity to meet its obligations to disburse loans to borrowers, the portfolio to assets ratio (PA) can be applied. It is computed as the ratio of gross loan portfolio to total assets. Operating efficiency matters to an MFI's overall performance. The operating expense ratio (OER) can be used as an indicator to measure the efficiency of microfinance operations. OER can be computed as the ratio of total expenses to gross loan portfolio. In general, the operations of rural MFIs are expected to be less efficient than those of the commercial banks because the

Indicators	Formulation	Definition
Gross loan portfolio to assets ratio (PA)	Gross Loan Portfolio Total Asset	The ability of the UED-SP MFI to disburse loans to the borrowers from the MFI's assets.
Portfolio Yield (Yield)	Net Operating Income Gross Loan Portfolio	The ability of an MFI to generate revenue or the productivity of an MFI to generate revenue.
Return on Assets (ROA)	Net Operating Income Total Assets	The ability of an MFI to generate income from assets.
Return on Equity (ROE)	Net Operating Income Total Equity	The ability of an MFI to generate income from equity.
Operating Expense Ratio (OER)	Total Expenses Gross Loan Portfolio	The ability of an MFI to control its operating costs or the operational efficiency of an MFI.
Operational Self- Sufficiency (OSS)	Total Revenue Total Expenses	The sustainability of an MFI (if OSS > 100% financially sustainable; if OSS < 100% financially unsustainable).

Table 2: Description of the financial indicators

former are more labour intensive. In fact, rural MFIs tend to incur higher operating expenses because their clients are more dispersed. The description of each financial indicator discussed is briefly documented in Table 2.

Subsequent, we turn to the outreach analysis, which aims to determine the number of villagers (who failed to have access to formal financial institutions) served by UED-SP MFIs in rural areas of Rokan Hulu. The breadth and depth of outreach of MFIs measure the number of poor and the poorest of the poor (including women and agricultural borrowers) reached out by MFIs, respectively (Navajas et al., 2000; Hermes et al., 2011). Women and agricultural borrowers are good proxies for the depth of outreach because the women are more likely to be poorer than men due to their lower education, health conditions, and due to discrimination, (Bhatt & Tang, 2001; Dowling & Valenzuela, 2010). On the other hand, earnings of agricultural borrowers from their farm-based activities are susceptible to weather conditions. Hence, there are several indicators that can be used to measure the extent of outreaching of the UED-SP MFIs in Rokan Hulu, for example, the number of borrowers, the number and percentage of men and women borrowers, and the number and percentage of agricultural and non-agricultural borrowers.

To ascertain the performance of financial sustainability and outreach, the empirical analysis will be based largely on secondary data collected from the financial statements and annual reports of the UED-SP MFIs in 2012 and 2015. It is due to the financial statement reports of all UED-SP MFIs were not properly recorded in the same format and in an orderly manner. The sample covered 153 UED-SP MFIs of Rokan Hulu in the Riau Province. To examine the performance of financial sustainability of the UED-SP MFIs, the independent sample t test will be performed to determine whether or not the calculated mean value of each financial indicator of UED-SP MFIs is any different from the mean value of the 2009 MFI Benchmarks at three levels. The levels of the benchmarks are the World MFIs (which is the

world MFIs include banks and MFIs operating worldwide that have been covered by the MIX market institution analysis of NBFIs (non-bank financial institutions), NGOs (non-government Unions/ organisations), Banks, Credit Cooperatives and Rural Banks), the Rural Bank type (is the banking institutions that target clients who live and work in non-urban areas, and who are generally involved in agricultural activities), and the Asian MFIs (which are the banks and MFIs operating in the Asian region that have been covered by MIX market institution analysis of NBFIs (non-bank financial institutions), NGOs (non-government organisations), Bank, Credit Unions/Cooperatives and Rural Banks). The 2009 MFI Benchmarks are obtained from the Microfinance Information Exchange (MIX) database which contains the latest publication of various categories of MFI performance at different level by the MIX Market institutions. The calculated test statistic has a t-distribution. If the mean value of the financial (or outreach) indicators of UED-SP MFIs is not significantly different from zero, it infers that the financial (or outreaching) performance of UED-SP MFIs is compatible with the 2009 MFI Benchmarks.

Results and Discussion

Financial Sustainability Performance of UED-SP MFIs

Table 3 presents the key financial performances of the UED-SP MFIs of Rokan Hulu in the Riau Province in 2012 and 2015. In addition, it also provides independent sample t-test statistics comparing the mean values of financial indicators of UED-SP MFIs against the 2009 MFI Benchmarks (at all levels), to show whether they are significantly different. With respect to OSS in 2012 and 2015, the UED-SP MFIs achieved 110.85% and 108.30% respectively (refer to the first row of Table 3). The values are greater than 100%, suggesting the rural MFIs were operationally self-sufficient attributed by stringent selection procedure on loan disbursement despite operating in the rural areas, even with higher costs of loan delivery.

This evidence corroborates the study by Aveh *et al.*, (2013) in Ghana, which shows that the business strategies adopted for the MFIs there had a positive impact on the self-sustainability of the MFIs.

As for the PA, the UED-SP MFIs attained more than 80% in both years (second row of Table 3), indicating that they had adequate liquidity to carry out their outreaching mission disbursing loans to serve the financial needs of the rural poor. Even though the yield on gross portfolio of UED-SP MFIs was close to 9% in 2012 and 2015. This means that the rural MFIs were able to maintain their productivity by generating income from the loans to the rural borrowers. However, they did much worse than the 2009 MFI Benchmarks across the board (third row of Table 3) by at least three times. When profitability is considered, the ROA for the rural MFIs stayed above 7% in both years (fourth row of Table 3). When the profitability is expressed in terms of ROE, it increased from 8.09% in 2012 to 9.31% in 2015 (fifth row of Table 3), depicting that the rural MFIs were more commercially viable compared with the 2009 MFI Benchmarks (at all levels), despite the rural MFIs were young, operating not-forprofit and being state-owned. In relation to operating expenses, although a typical rural MFI tends to operate with high transaction costs due to smaller loan sizes, its OER declined from 17.05% in 2012 to 16.94% in 2015 (last row of Table 3), suggesting UED-SP MFIs in Rokan Hulu were able to manage their operations efficiently.

Overall, the independent sample t-test statistics do not reject the null hypothesis of no significant difference in the mean values of the majority of financial indicators between the UED-SP MFIs and the 2009 MFI Benchmarks (at all levels), except for the Portfolio Yield (see 2012 and 2015 in the third row of Table 3) and the ROE (see 2012 in the fifth row of Table 3). More precisely, the t-test statistic does not reject the null hypothesis when the p-value is greater than 0.05. The test results

Table 3: Independent t-test for financial sustainability indicators (mean) of UED-SP MFIs in Rokan Hulu in 2012 and 2015 against the 2009 MFI Benchmarks (Mean)

Indicators of Financial Sustainability		UED-	the 2009 MFI Benchmarks by MIX Market			Independent Sample t-test of UED-SP MFIs to the 2009 MFI Benchmarks					
	Year	SP - MFIs	World	Rural Bank Type	Asian MFIs	World MFIs		Rural Bank Type		Asian MFIs	
			MFIs			t	р	t	р	t	р
Operational Self- Sufficiency (OSS, %)	2012	110.85	110.8	118.7	112.7	0.002	0.999	-0.265	0.791	-0.062	0.950
	2015	108.30				-0.069	0.945	-0.285	0.776	-0.121	0.904
Portfolio to Assets (PA, %)	2012	82.49	74.7	65.7	74.4	0.522	0.603	1.124	0.263	0.542	0.589
	2015	83.01				0.555	0.579	1.157	0.249	0.576	0.566
Yield on Gross Portfolio (Yield, %)	2012	8.96	32.9	29.0	27.6	-3.855	0.000	-3.227	0.002	-3.002	0.003
	2015	8.80				-2.794	0.006	-2.342	0.021	-2.180	0.031
Return on Assets (ROA, %)	2012	7.32	-0.1	2.4	0.5	1.765	0.080	1.170	0.244	1.622	0.108
	2015	7.22				1.068	0.287	0.704	0.483	0.981	0.328
Return on Equity (ROE, %)	2012	8.09	5.3	15.3	29.6	0.485	0.629	-1.253	0.213	-3.737	0.000
	2015	9.31				0.381	0.704	-0.569	0.570	-1.928	0.056
Operating Expense	2012	17.05	27.2	18.9	21.8	-1.211	0.229	-0.221	0.8 26	-0.567	0.572
Ratio (OER, %)	2015	16.94	21.2			-0.694	0.489	-0.132	0.895	-0.329	0.743

Source: Computed from the data in Financial Reports of the UED-SP MFIs in 2012 and 2015. Note: Unit of measurement is in parentheses; level of significance: $\alpha = 0.05$ percent; df = 111.

suggest that the performance of UED-SP MFIs in OSS, PA, ROA and OER is compatible with the 2009 MFI Benchmarks (at all levels). On the other hand, the UED-SP MFIs were not as productive if compared with the yield on gross portfolio of the World MFI, the Rural Bank Type, and the Asian MFIs (see 2012 and 2015) in the third row of Table 3). Likewise, a similar conclusive t-test result indicates that UED-SP MFIs were not as profitable in comparison with the ROE of the Asian MFIs. Given that UED-SP MFIs in Rokan Hulu are relatively young, based on its short years in operation (The MIX Market, 2010). Their performance in terms of financial indicators are as good but not better than the 2009 MFI Benchmarks across the board, especially in OSS, PA, ROA and OER. Although they are state-owned, they are still self-sufficient, profitable, efficient and well managed financially, without depending on any outside funding.

Outreach Performance of UED-SP MFIs

The results for outreach performance can be found in Table 4. Overall, the breadth (in terms of the number of borrowers) and the depth (in terms of number of women borrowers as well as the number of agricultural borrowers) of outreach of the rural MFIs increased from 2012 to 2015. For instance, the average number of borrowers increased from 229 persons in 2012 to 321 persons in 2015, showing a 40% expansion of the breadth of outreach. Even though the men borrowers dominated in terms of the average total number of borrowers in both years, their percentage (of the total average number of borrowers) declined from 77.8% in 2012 to 72.7% in 2015. On the contrary, the percentage of women borrowers, used as the first proxy for the depth of outreach, gained ground from 22.2% in 2012 to 27.3% in 2015. The same trend was observed on the percentage of agricultural borrowers, used as the second proxy for the depth of outreach, which increased from 67.1% in 2012 to 77.1% in 2015. The outreach performance of UED-SP MFIs implies that reaching out to more rural borrowers at large has the propensity to increase access to the disadvantaged group such as women and farm-based microenterprises. Moreover, the decrease in average loan per borrower from IDR 2,620,900 in 2012 to IDR 1,953,100 (Table 4) was attributable to the increase in the breadth and depth of outreach. As a consequence, the increase in the number of active borrowers could raise the cost of loan screening, delivery and monitoring (Shankar, 2006) while remaining financially self-sustainable (Table 3). These findings support the positive results that the pursuit of financial sustainability goes hand in hand with the reaching out to the poor (Cull et al. 2007).

To gauge the performance in terms of the depth of outreach of UED-SP MFIs in

Description	2012	2015
Number of Borrowers (NoB) (Person)	229.23	321.67
Number of Men Borrowers (NMB) (Person)	176.49	242.85
Number of Women Borrowers (NWB) (Person)	52.69	83.08
Number of Agricultural Borrowers (NAgB) (Person)	146.97	242.35
Number of Non-Agricultural Borrowers (NNAgB) (Person)	67.77	81.85
Average Loan per Borrowers (ALPB) (IDR, 000)	2,620.91	1,953.13
Percentage of Women Borrowers (PWB) (%)	22.24	27.27
Percentage of Agricultural Borrowers (PAgB) (%)	67.10	77.13

Table 4: The breadth and depth of outreach of the UED-SP MFIs, 2012 and 2015

Source: Computed from the data in Annual Reports of the UED-SP MFIs in 2012 and 2015. Note: Unit of measurement is in parentheses.

relative terms, we also applied the 2009 MFI Benchmarks (at all levels) for the purpose of comparison. However, the MIX Market only reported the percentage of the women borrowers as an outreach indicator (The MIX Market, 2010). Therefore, the second proxy for the depth of outreach, that is, the percentage of agricultural borrowers, will be excluded from the outreach performance comparative analysis. The percentage of the women borrowers that the UED-SP MFIs served in 2012 and 2015 was much lower than that of the 2009 MFI Benchmarks in relation to the World MFIs, the Rural Banks Type, and the Asian MFIs. However, the p values of the independent samples t test statistics are greater than 0.05 in both years with the exception for the Asian MFIs in 2012 (first row of Table 5). From the independent sample t test results, it can be inferred that the mean values of the outreach indicator in 2015 are not significantly different (second row of Table 5). The comparative analysis shows that the UED-SP MFIs have the ability not only to improve their social performance in terms of serving more women borrowers in rural areas, but also to deepen their outreach performance in 2015. This is in line with the 2009 MFI Benchmarks such as the World MFIs, the Rural Bank Type, and the Asian MFIs.

Conclusions

The UED-SP MFIs in the Riau Province of Indonesia were able to accomplish the social mission of providing financial access to as many rural poor as possible marked by reaching out to the poor with the lowest income level, such as women and the agricultural microenterprises, while remaining commercially viable. As far as the financial sustainability performance is concerned, they achieved more than 100% for their OSS ratio in 2012 and 2015, demonstrating that their operations did not depend on subsidies from the local government or donor agencies, even though they are not-for-profit and stateowned. Their performance in terms of financial indicators are as good but not better than the 2009 MFI Benchmarks across the board, especially in OSS, PA, ROA and OER. Meanwhile, their performance in terms of depth of outreach, that is, reaching out to women borrowers was on par with the MFI Benchmarks (at all levels) in 2015. The factors leading to the success of the rural MFIs to become commercially viable in serving a high number of the poor and the poorest of the poor are due to their microfinance activities that are run on a set of guiding principles with sound microlending practices. For example, all MFI activities must be community centric. They must be accessible to all community members and must be driven independently by

Depth of outreach indicators	UED-SP	Bench	e 2009 M mark by Market	Independent sample test to						
	MFIs (Mean)	World MFIs	rural	Asian	World MFIs		Rural bank type		Asian MFIs	
				MFIs	t	р	t	р	t	р
Percentage of women borrowers 2012 (PWB, %)	22.24	63.3	38.2	77.3	-3.827	0.000	-1.487	0.140	-5.131	0.000
Percentage of women borrowers 2015 (PWB, %)	27.27				-1.045	0.297	317	0.752	-1.452	0.149

Table 5: Independent t-test for the depth of outreach indicators against the 2009 MFI Benchmark, 2012 and 2015

Note: Level of significance: $\alpha = 0.05$ percent

the community with accountability. Finally, the proposed activities must be selected based on prioritised community needs, without fear or favour. Strict eligibility criteria for a microloan depend on the applicant's proof of residence, mandatory minimum savings with the rural MFIs, collateral support, and sound business plan or activity. Borrowers with good track records are eligible for the next loan, worth up to 50% of the first loan, depending on fund availability. Even though the findings would be useful to the stakeholders and developing countries as a successful social business model to alleviate poverty, they have certain limitations. It should be noted that the analysis of financial sustainability and outreach might yield quite different results when there were errors and omissions in the financial statements due to incompetent bookkeeping by the officials of the UED-SP MFIs. One likely area for future research is to extend the existing study by examining the social and economic impacts of microlending by UED-SP MFIs in Indonesia's Riau Province so that the donor agencies and non-profit organisations could appraise whether the donations/funds that have been raised to support the strategic mission of a microfinance programme is well invested.

Acknowledgements

The first author will like to thank for the feedback and suggestions from the chairperson and the participants in the 8th International Conference on Postgraduate Education 2018, in Universiti Malaysia Terengganu, Malaysia.

References

- Adam, D., & von Pischke, J. D. (1992). Microenterprise credit programs: Déja vu? World Development, 20(10), 1463-1470.
- ADB. (2000). Finance for the poor: Microfinance development strategy. Manila: Asian Development Bank (ADB).
- Aveh, K., Krah, R. Y., & Dadzie, P. (2013). Business strategy and sustainability of microfinance institutions in Ghana.

Research Journal of Finance and Accounting, 4(10), 17-28.

- Bayai, I., & Ikhide, S. (2016). Financing and financial sustainability of microfinance institutions (MFIs): A conceptual view. Bank and Bank Systems, 11(2), 21-32, doi: http:// dx.doi.org/10.21511/bbs.11(2).2016.03
- Bhatt, N., & Tang, S. Y. (2001). Delivering microfinance in developing countries: Controversies and policy perspective. *Policy Studies Journal*, 29(2), 319-333.
- Bogan, Vicki L. (2012). Capital structure and sustainability: An empirical study of microfinance institutions. *Review of Economics and Statistics*, 94(2), 1045-1058.
- BPMPD. (2009a). Petunjuk Teknis Program Pemberdayaan Desa (*Operational Guidance* of Rural Empowerment Programme). Pekanbaru: Rural Development and Community Empowerment Agency, Riau Province.
- BPMPD. (2009b). General Guidance of Rural Empowerment Programme. Pekanbaru: Rural Development and Community Empowerment Agency, Riau Province.
- BPMPD. (2014). Laporan Program Pemberdayaan Desa (*Rural Empowerment Programme Report*). Pekanbaru.
 Pekanbaru: Rural Development and Community Empowerment Agency, Riau Province.
- BPS. (2014). *Riau in figure 2014*. Pekanbaru: Badan Pusat Statistik Provinsi Riau.
- BPS. (2015). Sensus penduduk 2010 Indonesia. Badan Pusat Statistik Indonesia, http:// sp2010.bps.go.id/index.php/site/index.
- BPS. (2016). Number of poor people, percentage of poor people and the poverty line, 1970-2015. Badan Pusat Statistik Indonesia. https://www.bps.go.id/ linkTabelStatis/ view/id/1494
- Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2007). Financial performance and

outreach: A global analysis of leading microbanks. *The Economic Journal*, *117*(1), F107-F133.

- D'Espallier, B., Hudon, M., & Szafarz, A. (2013). Unsubsidized microfinance institutions. *Economics Letters*, *102*(2), 174-176.
- Dowling, J. M., & Valenzuela, M. R. (2010). Economic development in Asia. Singapore: Cengage Learning Asia Pte Ltd. ISBN 9789814272933.
- Duguma, G. J., & Jigin H. (2018). Effect of deposit mobilization on the financial sustainability of rural saving and credit cooperatives: Evidence from Ethiopia. *Sustainability*, 10(10), 3387; doi:10.3390/ su10103387.
- Ejigu, L. (2009). Performance analysis of a sample microfinance institutions of Ethiopia. *International NGO Journal*, 4(5), 287-298.
- Fall, F., Akim, A., & Wassongma, H. (2018). DEA and SFA research on the efficiency of microfinance institutions: A meta-analysis. *World Development*, 107(C), 176-188.
- Forster, S., Greene, S., & Pytkowska, J. (2003). The state of microfinance in central and Eastern Europe and the new independent states. Washington DC: The World Bank.
- Haryanto, N., & Isril. (2013). Pelaksanaan Program Usaha Ekonomi Desa Simpan Pinjam (UED-SP) di Kabupaten Rokan Hulu Tahun 2010-2011. http:// repository.unri.ac.id/xmlui/bitstream/ handle/123456789/3605/ jurnal NUR HARIYANTO.pdf?sequence=1.
- Hermes, N., Lensink, R., & Meester, A. (2011). Outreach and efficiency of microfinance institutions. *World Development*, 39(6), 938-948.
- Kipesha, E. F., & Xianzhi Z. (2013). Sustainability, profitability and outreach trade-offs: Evidences from microfinance institutions in East Africa. *European Journal of Business and Management*, 5(8), 136-149.

- Khandker, S. R. (1998). *Fighting poverty with microcredit: Experience in Bangladesh*. New York: Oxford University Press.
- Kyereboah-Coleman, A., & Osei, K. A. (2008). Outreach and profitability of microfinance institutions: The role of governance. *Journal* of Economic Studies, 35(3), 236–248. http:// doi.org/10.1108/01443580810887797
- Ledgerwood, J. (1999). *Microfinance handbook: An institutional and financial perspective.* Washington DC: The World Bank.
- Lopatta, K., Tchikov, M., Jaeschke, R., & Lodhia, S. (2017). Sustainable development and microfinance: The effect of outreach and profitability on microfinance institutions' development mission. *Sustainable Development*, 25, 386-399. doi: 10.1002/ sd.1663.
- Marr, A. (2004). A challenge to the orthodoxy concerning microfinance and poverty reduction. *Journal of Microfinance*, 5(2), 1-35.
- Masri, D. (2014). Analisis perputaran modal kerja pada usaha ekonomi desa UED-SP Tuah Negeri Rambah Hilir Rokan Hulu (Studi Kasus: UED-SP Tuah Negeri Rambah Hilir Rokan Hulu). http:// download.portalgaruda.org/article.php? article= 119881&val=5490
- Miyashita, Y. (2000). Microfinance and poverty alleviation: Lessons from Indonesia's village banking system. *Pacific Rim Law and Policy Journal*, *10*, 149-189.
- Morduch, J. (1999). The microfinance promises. Journal Economic Literature, 37(4), 1569-1614.
- Navajas, S., Schreiner, M., Meyer, R., & Gonzalez-Vega, C. (2000). Microcredit and the poorest: Theory and evidence from Bolivia. *World Development*, 28(2), 333-346.
- Nyanzu, F., Peprah, J. A., & Ayayi, A. G. (2019). Regulation, outreach, and sustainability of microfinance institutions in Sub-Saharan Africa: A multilevel analysis. *Journal of*

Small Business Management. doi:10.1111/jsbm.12467.

- Quayes, S. (2012). Depth of outreach and financial sustainability of microfinance institutions, *Applied Economics*, 44(26), 3421-3433.
- Perdana, P., Rifai, A., & Muwardi, D. (2014). Analisis Kinerja Sosial dan Kinerja Keuangan Lembaga Keuangan Mikro (LKM) Usaha Ekonomi Desa-Simpan Pinjam (UED-SP) Badan Usaha Milik Desa (BUMDes) Ngaso Mandiri Desa Ngaso Kecamatan Ujung Batu Kabupaten Rokan Hulu. JOM FAPERTA, 1(2). http://id.portalgaruda. org/index.php?ref=browse&mod= viewarticle&article=264805
- Robinson, M. S. (2001). *The microfinance revolution: Sustainable finance for the poor*. Washington DC: The World Bank.
- Robinson, M. S. (2002). The microfinance revolution: Lessons from Indonesia, 2. Washington DC: The World Bank.
- Rosenberg, R. (2009). Measuring results of microfinance institutions minimum indicators that donors and investors should track. CGAP Technical Guide. *Consultative Group to Assist the Poor (CGAP)*.
- Rhyne, E. (1998). The Yin and Yang of microfinance: Reaching the poor and sustainability. *MicroBanking Bulletin*, 2.
- Saltzman, S. B., Rock, R., & Salinger, D. (1998). Performance and standards in microfinance: ACCION's experience with the CAMEL Instrument. *CAMEL Discussion Paper Series*. No. 7.
- Seibel, H. D., & Parhusip, U. (1998). Microfinance in Indonesia: An assessment of microfinance institutions banking with the poor. *Economics and Sociology Occasional Papers* No. 2365, Department of Agricultural Economics, The Ohio State University.
- Sekabira, H. (2013). Capital structure and its role on performance of microfinance

institutions: The Ugandan case. *Sustainable Agriculture Research*, *2*(3), 86-100.

- Sekretariat SIMPADU PK. (2015). SIMPADU Penanggulangan Kemiskinan. Sekretariat SIMPADU PK. http://simpadu-pk.bappenas. go.id/
- Shankar, S. (2006). Transaction costs in group micro credit in India. *Management Decision*, 45(8), 1331-1342.
- Syarif, H. (2006). Desentralisasi untuk pembangunan daerah. Jentera, Tahun IV (14). http://jurnaljentera.pshk.or.id/index. php/jentera/article/view/10.1
- The MIX Market. (2010). 2009 MFI Benchmarks. *The MIX* (Microfinance Information Exchange). *http://www.themix. org/publications/microbanking-bulletin/* 2010/10/2009-mfi-benchmarks.
- Widiarto, I., & Emrouznejad, A. (2015). Social and financial efficiency of Islamic microfinance institutions: A data envelopment analysis application. *Socio*economic Planning Sciences, 50(C), 1-17.
- Widiarto, I., Emrouznejad, A., & Anastasakis, L. (2017). Observing choice of loan methods in not-for-profit microfinance using data envelopment analysis. *Expert Systems with Applications*, 82, 278-290.
- Yuniati, Syahza, A., & Jihan, R. S. (2014). Pengaruh Pinjaman Dana UED Terhadap Tingkat Kesejahteraan Masyarakat Penerima Pinjaman di Desa Muara Musu Kecamatan Rambah Hilir Kabupaten Rokan Hulu. https://media.neliti.com/ media/publications/31732-ID-efektivitas penyaluran-dana-usaha-ekonomi-desasimpan-pinjam-ued-sp-kepada-masya.pdf
- Zeller, M., & Meyer, R. L. (2002). The triangle of microfinance: Financial sustainability, outreach and impact. In M. Zeller & R. L. Meyer (Eds.), *International Food Policy Research Institute*. Washington DC.