Assessing the Operating Efficiency for the Vietnam Microfinance Institutions and Implication for the Transmission

Pham Hong Linh,
MSc, Banking faculty, Banking Academy of Vietnam
12 Chua Boc St, Dong Da Dist, Hanoi, Vietnam
linhph@hvnh.edu.vn

Nguyen Thi Thu Trang,
MSc, Banking faculty, Banking Academy of Vietnam
12 Chua Boc St, Dong Da Dist, Hanoi, Vietnam
trangntt@hvnh.edu.vn

Abstract. This paper investigates the operating efficiency of Vietnam microfinance institutions (MFIs) in formal and informal sectors during the period from 2010 to 2015 through the operating self-sufficiency ratio, return on asset ratio and return on equity ratio. The results show that the ratios of formal MFIs were higher than these of informal MFIs. Then authors recommend that the informal MFIs in Vietnam should concentrate on operation management rather than transforming to formal MFIs by all means.
Keywords: microfinance institutions; formal MFIs; informal MFIs; operating efficiency of MFIs.

Оценка текущей эффективности вьетнамских микрофинансовых организаций и выводы о путях их развития

Пхам Нонг Линх
канд. экон. наук,
Банковский факультет, Банковская Академия Вьетнама
12 Chua Boc St, Dong Da Dist, Ханой, Вьетнам
linhph@hvnh.edu.vn

Нгуен Тхи Тху Транг
канд. экон. наук,
Банковский факультет, Банковская Академия Вьетнама
12 Chua Boc St, Dong Da Dist, Ханой, Вьетнам
trangntt@hvnh.edu.vn

Аннотация. В данной работе исследуется текущая эффективность микрофинансовых организаций (МФО) Вьетнама в формальном и неформальном секторах в период с 2010 по 2015 г. посредством анализа коэффициентов текущей самодостаточности, рентабельности активов и капитала. Результаты исследований показывают, что коэффициенты текущей самодостаточности в формальных МФО были выше, чем в неофициальных МФО. Авторы рекомендуют неофициальным МФО Вьетнама сосредоточиться на текущем управлении, а не на попытках превращения в официальные МФО.
Ключевые слова: микрофинансовые организации; формальные МФО; неформальные МФО; текущая эффективность МФО.

I. INTRODUCTION

According to common definition of ADB (2000), microfinance institution is the provision of a broad range of financial services such as credit, saving, insurance and money transfer for the poor, low-income households and micro-corporation. Invented from the beginning of 17th century under the name of credit union in agriculture sector, MFIs become more and more popular throughout the world, especially in developing countries. MFIs are proved to be efficient approach for poverty reduction (Shirazi and Khan, 2009; Imai, Arun, and Annim, 2010; Boateng and Bampoe, 2015).

Evaluating the MFI's performance is more complicated than other financial institutions because MFIs have to face the challenges in providing financial services for the poor as well as ensuring cost recovery to avoid bankruptcy. According to Meyer (2002), evaluate the MFI's performance should be in term of critical triangle including outreach to the poor, financial sustainability and impact to the poverty. Meyer (2002) implies that the poor need financial support in the long term rather than once time in life. Moreover, MFI's target is improving the living condition for the poor, thus reducing poverty often is often an indicator to assess whether IFIs have accomplished its mission or not. Providing financial services for the poor normally are high transaction cost, the MFIs often receive additional external funding to compensate the shortfall between revenue derived from customers and cost of providing financial services. While receiving additional funding is limited, donors will sustain the grant in the future or not is uncertain. These above factors led to the low level of financial sustainability in MFIs.

Financial sustainability shows the ability that MFIs can survive in the long term by their own income without any contribution from donors. Financial sustainability is measured by operational self- sustainability (OSS) and financial self-sustainability (FSS). OSS measures whether MFIs' operating income is sufficient to cover operating costs such as salaries and wages, supplies, loan losses and other administration costs. FSS shows MFI can cover the costs of fund and other subsidies received when they value at market rates. Moreover, the return on asset (ROA) and return on equity (ROE) are also applied to measure MFIs' sustainability.

II. LITERATURE REVIEW ABOUT THE PERFORMANCE OF FORMAL AND INFORMAL MFIS

Some study proved that informal MFIs perform better than formal MFIs. Bakker, Schaveling and Nijhof (2014) showed the negative relationship between legal status and operational efficiency in MFIs because formal MFIs have to pay more to meet the legal requirements. Similar, Ngo (2012) indicated that cost is the obstruction so the MFIs only reach the certain point in efficiency and size could consider about transforming from informal to formal MIFs. Ngoc (2015) in her study about 434 MFIs in developing countries from 2010 to 2014 proved that there is difference in sustainability between formal and informal MFIs. Then formal MFIs are less competitive than formal ones due their lower at operation efficiency and sustainability as well.

In addition, there are studies indicated that formal MFIs perform better than informal ones. Bassem (2009) examined the countries in Mediterranean region through survey and concluded that formal MFIs are better because customer trust them more so it is easier for them to reach the idle of money in residential and provide loan to customers. Meanwhile Amelie Brune (2009) researched MFIs in Africa and Asia region and proved that the scale of MFIs does not affect their operational efficiency. Thao (2015) investigated the outreach and the sustainability for the MFIs in Vietnam, but the study only conducted for the formal MFIs rather than analyzing and comparing with informal MFIs in Vietnam.

Thus previous studies give different conclusions about the relationship between legal status and operational efficiency of formal and informal MFIs.

III. RESEARCH METHODOLOGY

3.1. Variable selection

In this paper, the authors used three indicators: Operational Self Sustainability (OSS), Return on Asset (ROA) and Return on Equity (ROE) to measure the financial sustainability, from which to measure and compare the performance between formal and informal MFIs. Based on the results, the authors would propose recommendations on the transition from informal to formal MFIs.

Operational Self Sustainability (OSS) is considered the most simple and common index to assess the self-sustainability of MFIs (Marakkath, 2014). This indicator is often reported publicly by microfinance institutions annually. Operational Self Sustainability measures whether revenue of a MFI cover its total costs (including operational expense, loan loss provision and financial costs). In which, the ratio greater than 100 percent indicates that the microfinance institution can cover all its costs through their activities and not rely on donations or grants from external funds to survive (Churchill and Frankiewicz, 2006). However, according to international practices, the index should be greater than 120% to ensure the self-sustainability for long-term.

Return On Assets (ROA) is the most common ratio used to measure the profitability of banks and financial institutions (Pasiouras and Kosmidou, 2007, Goddard et al, 2004, Sufian et al, 2009). ROA shows the effectiveness of asset investment and capabilities of senior executives in the use of the financial resources to make profit (Hassan et al, 2006). The higher ratio of ROA indicates the higher profitability on an asset unit of the MFI. However, the too high ROA is not necessarily good because it may be the result of investing in assets with high level of risk. According to international practices, ROA of about over 2% proved an efficient MFI.

Return On Equity (ROE) represents the ability to make profit on an equity unit. ROE is considered to be one of the most comprehensive indicators to evaluate the profitability of a business, because the ultimate goal of a business is to maximize the property of shareholders. ROE is equal to ROA multiplied by the financial leverage (total assets on equity), reflecting the trade-off between risks and profitability of the organization.

3.2. Hypotheses and models

To be able to give recommendations of the transformation of microfinance institutions, the paper assessed whether there were differences in the Operational Self Sustainability and profitability between formal and informal microfinance institutions. T-test was conducted to answer those questions. Before implementing t-test, Lillierfors test would be done to test the normal distribution of data. Research also performed additional non-parametric test (non-parametric Wilcoxon sign-rank) to test the differences in the Operational Self Sustainability and profitability between formal and informal microfinance institutions. Hypotheses of the study were as follows:

H_0: There is no difference in the self-sustainability and profitability between formal and informal microfinance institutions.

H_1: There are significant differences in the self-sustainability and profitability between formal and informal microfinance institutions.

In each test, p-value value will be used as a basis to draw conclusions for the research questions.

3.3. Data Collection and Description

Research data was taken from annual data of 22 Vietnamese microfinance institutions which were announced on the website mixmarket.org during the period from 2010 to 2015. One problem was that some organizations did not have full data of all these years, making up the final data including only 76 observations. Table 1 showed that the average of operational self-sustainability and that of profitability of Vietnamese MFIs were higher than the points of reference. As analyzed above, the OSS should be over 120% to ensure the long-term performance of the microfinance institutions, while ROA over 2% proving microfinance institutions efficient. These figures of Vietnamese MFIs (average of 139.4% and 5.6%, respectively) were significantly larger than the benchmarks. However, the data also showed a high degree of volatility of variables (with large standard deviations). Specifically, OSS was the most volatile indicator, varying between only about 1.96% (which indicated the income covered little the costs of the organization) and 252% (the income was 2.5 times the total cost). ROA fluctuated from –2.92% to 14.75%, while ROE from –12.61% to 72.35%.

Table 2 presented the results of Lillierfors test for normal distribution of OSS, ROA, ROE of formal and informal microfinance institutions. The results showed that there was no reason to reject the hypothesis H_0 at the significant level of 5% (only test for data series of the operational self-sustainability of informal microfinance institutions rejected H_0 at 10% level of significance), which means that the data sets were normally distributed. This result indicated that the research

Table 1. **Summary Statistics**

	Mean	Median	Maximum	Minimum	Std.Dev	N
OSS	139.40%	141.20%	252.82%	1.96%	40.30%	76
ROA	5.60%	6.35%	14.75%	-2.92%	4.02%	76
ROE	14.68%	15.72%	72.35%	-12.61%	12.96%	76

Source: authors' own computation.

Table 2. **Results of Lillierfors Test**

		p-value
Formal MFIs		
OSS	0.0878	> 0.1
ROA	0.1182	> 0.1
ROE	0.1338	> 0.1
Informal MFIs		
OSS	0.1402	0.0638
ROA	0.1338	> 0.1
ROE	0.0876	> 0.1

Source: authors' own computation.

can use t-test to assess the differences in the self-sustainability and profitability between formal and informal microfinance institutions.

IV. RESEARCH RESULTS

Table 3 presented the average of OSS, ROA, ROE of formal and informal microfinance institutions as well as the t-test results. It showed that compared to formal microfinance institutions, informal ones had higher self-sufficiency and return on assets. Specifically, the average OSS of informal MFIs was 160% whereas that of formal MFIs was only approximately 122% (40% less). As regard to ROA, the figure for informal MFIs was 7% while that of formal MFIs only 4%. For ROE, the difference between the two groups was not statistically significant; however, the figure for informal MFIs was still higher than that of formal MFIs (16% compared to 13%). Wilcoxon test on the difference in the median values concluded with the same results.

These results were consistent with the study by Bakker et al (2014) on the self-sustainability of microfinance institutions over post-crisis period. Accordingly, cost of regulatory compliance was the main reason that caused formal microfinance institutions less competitive, and therefore, their self-sustainability as well as profitability also worse than their informal counterparties. Another explanation for these results came from the research by Peck and Rosenberg (2000): credit cooperatives (customers both the owners and the borrowers) had lower agency cost (costs arising from the conflict between shareholders and managers) than private companies did. Costs for the problem of conflict between principal and agent led to cooperatives as effective as private companies.

In contrast, the study by Bassem (2009) found that formal MFIs would be more efficient because they are trusted by customers, and therefore, easier to access funds from residents. Peck and Rosenberg (2000) explained that the board members of NGOs paid less attention to monitoring management because they were not investors, so they were less interested in the

Table 3. **Results of t-test**

	Formal MFIs	Informal MFIs	differences
OSS	1.2195	1.5779	0.3583***
ROA	0.0400	0.0725	0.0326***
ROE	0.1323	0.1614	0.0291

(Note: *, **, *** denote statistical significance of the t-tests at the 10%, 5%, and 1% level, respectively. Results are based on author' own computation).

survival and the sustainable development of the institutions. The private companies were, therefore, more profitable than NGOs. According to microfinance experts, (Ledgerwood and White, 2006; White and Campion, 2002), the governance systems of non-profit organizations were less effective than those of formal microfinance institutions. Thus, as a result of effective governance system, private companies would be better controlled, and therefore, more efficient than cooperatives and NGOs. The survey results of 39 cases of transformation by Fernando (2004) also confirmed that most of the transformation cases improved the governance system and financial performance of MFIs, as typified by the case of BancoSol in 1992, FFP Caja Los Andes in 1996, Banco Ademi in 1998; Mibanco in 1998; Compartamentos in 1999. However, some empirical studies did not find the relationship between the performance of MFIs and their legal status (Mersland and Strom, 2008, 2009 and Gutierrez-Nieto et al., 2009).

The opposed results to the cases of Vietnamese microfinance institutions in the research (informal institution had higher self-sustainability and profitability) could be explained by both the difference in the research context and the Vietnamese formal microfinance institutions still not organizing an effective governance system as expected by the studies of Ledgerwood and White (2006) and White and Campion (2002). In addition, the reliability of data and consensus on recognizing and reporting standards should be considered. From the definitions of variables, the values of OSS, ROA and ROE were always influenced by risk provisions, which were calculated by expectations of risks. Lack of controls as well as inconsistencies in estimating standards may affect the value and the reliability of OSS, ROA and ROE. High value of OSS, ROA and ROE of informal organizations can be the results of investing in lucrative but risky assets without setting up enough provisions for losses.

V. CONCLUSION AND POLICY RECOMMENDATION

Through the tests and results, there is finding that in Vietnam, the informal MFIs have higher level of operational sustainability and return ratios. This due to formal MFIs in Vietnam pay more on issues related to legal, representatives, transforming cost and upgrade infrastructure while there is unclear about opportunity to raise capital and benefit in transforming. More detail, in Vietnam, the corporate income tax for formal MFIs is 20% while informal MFIs are free to this tax. Moreover, formal MFIs is treated as a kind of financial institution so they have to comply the safety ratios and other regulations given by State Bank of Vietnam.

Based on the empirical result about negative relationship about legal status and operational efficiency in MFIs in Vietnam, the study has generated some policy recommendations:

Firstly, most of MFIs in Vietnam works for social and nonprofit target, so if they transform to formal institution, their original target would be weaken and there are more tax and legal issue burden. So the formal MFIs in Vietnam do not have to transform to formal one by all the means.

Secondly, even though Vietnam has basic legal framework for MFIs, providing the foundation for the transforming from informal to formal MFIs but the MFI generally vulnerable to the fast changes in business environment. In addition, there is a big challenge in competition in finance and banking sector, especially when Vietnam has opened the door more and more broaden. The informal MFIs, therefore, need more proactive in operation and management as well to mitigate risk, achieve targets and especially ready to comply with regulations.

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