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An Analysis on the Efficiency of Philippine Microfinance Institutions: A Stochastic Frontier Approach

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Microfinance institutions (MFIs) were created to provide loans and financial services for the poor as commercial banks have requirements that are not accessible to them. The Philippines government soon started using MFIs as a poverty alleviation tool to answer the market failure created by the commercial banking industry since it cannot accommodate the needs of low-income earners due to the high costs attached to it. However, recent studies have shown that MFIs are "mission drifting," which means that they are deviating from their original social purpose and becoming more financially driven. As a result, this paper estimates the financial and social efficiency of Philippine MFIs using a two-step Stochastic Frontier Approach from 2005 to 2018.

Policy Recommendations

1. **Responsibility in Accounting**

Given that the study revealed that MFIs are financially efficient but socially inefficient in their production, where the public, especially the poor, does not receive the full benefits MFIs may give, it is recommended that the regulatory body, the Securities and Exchange Commission (SEC), requires MFIs to perform responsibility in accounting, which involves transparency of accurate and complete financial statements that are free from errors. This includes quality control, external audits, and risk assessment. These would make the evaluation of MFIs' compliance with social efficiency metrics easier. Such metrics include client outreach and poverty reduction. Also, responsibility in accounting may lead to favorable results for the entities as their reputation with

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investors improves. This makes them a viable choice for donations and contributions that can improve the financial performance of MFIs. Such a recommendation is aligned with the existing practice of NGOs, where the latter provides NGO-Funder accountability reports.

2. **Employee motivation through incentives**

In order to properly reach their social objectives, MFIs need to motivate their employees to boost their performance and morale. This can be done by giving incentives to employees who can reach a certain threshold for the number of borrowers. It may be through productivity-performance or allowances. While this may be recognized as a financial motivation, it still encourages social engagement as it expands the breadth of consumer loans. The incentive includes bonuses and a reasonable percentage increase in salaries.

3. **Explore digital banking**

The Bangko Sentral ng Pilipinas can push MFIs to explore digital banking to expand their outreach. Such platforms include mobile banking and e-wallets for its clients and customers to use. This makes services more accessible nationwide with the emergence of the internet and mobile phones. This would reduce face-to-face and over-the-counter transactions. However, there should be an established training program to encourage financial literacy and consumer protection to make it easier for Filipinos, especially the marginalized, to use digital banking. Additionally, the regulatory body should develop a website that would receive public complaints regarding microfinance products and services to have other avenues for filing such and address them as soon as possible. Doing so would also help improve social efficiency (Habaradas & Umali, 2013).

4. **Close evaluation of MFIs for policy adjustments**

The performance of the MFI industry is majorly based on existing regulations. It pressures various agencies and regulatory bodies to exercise diligence and vigilance in carefully evaluating the efficiency of MFIs (Habaradas & Umali, 2013). The study reveals that when they are left alone, MFIs have general tendencies to act for their benefit. They push for personal financial profitability rather than performing for the benefit of society. Therefore, close observation of the industry's behavior is required to avoid counterintuitive implementation of policies while taking into account both the social and financial aspects of MFIs.

Introduction

MFIs are usually assessed based on their financial and social performances. Financial performance is defined as the degree of an MFI in meeting its financial objectives through profit. Previous literature has provided that financial performance indicators are accounting items in an entity's income statement (Shkodra, 2019). On the other hand, the Microfinance NGOs Act of 2015 (2015) explains social performance as a way in which an MFI pursues its mission through practice. Factors such as client outreach and poverty reduction are the usual indicators of changes in the social performance of MFIs (Armendáriz and Szafarz, 2011). Existing studies estimate the social and financial efficiency of MFIs to determine their performance, and most authors only focused on individually analyzing either financial or social efficiency. In fact, the same process has been widely adapted in the Philippine context, and only a few tried simultaneously estimating the two types of efficiency. Hence, motivating the researchers to analyze financial and social efficiency using the stochastic approach in the local context.

Model Specifications and Results

The study used panel data covering 14 MFIs over the course of 14 years from 2005-2008, with a total of 196 observations. All information was garnered from the Market Information eXchange (MIX) Market database of the World Bank.

The study used Stochastic Frontier Analysis for its methodology. It has become an interesting method for contemporary researchers trying to estimate financial and social efficiency because it segregates firms' internal inefficiency from random external shocks. The study is based on a two-step model wherein the first step estimates efficiency and the second step determines the possible drivers of inefficiency. Moreover, the researchers employed a logarithmic production function to adjust for the data availability from the World Bank. Since this is the case, the results from the first step estimation will reveal the elasticity of the coefficients of the independent variables. The researchers found out that each variable for both the financial and social sides is inelastic, indicating that a change in one of the independent variables, holding the other variables constant, will lead to a lower change in the dependent variables (financial - gross loan portfolio; social - number of borrowers).

The sum of the independent variables will determine the returns to scale exhibited by the MFI industry. For financial efficiency, the industry exhibits increasing returns to scale, which means that when all inputs simultaneously change, the effect on financial output would be much higher. On the other hand, for social efficiency, the industry exhibits decreasing returns to scale, implying that concurrent movements in the inputs would lead to a smaller change in social output. It is important to take note of two parameters - variance and gamma. The parameter variance represents the gap between the actual and efficient output for financial and social efficiencies. Furthermore, the parameter gamma determines the primary driver for such a gap. The results for the variance in financial and social efficiency are significant, indicating a gap between the actual and efficient output wherein MFIs' observed output levels are below the frontier. On the other hand, gamma is insignificant for financial efficiency but significant for social efficiency. This indicates that for financial efficiency, the gap is primarily driven by external factors, while the gap for social efficiency is primarily driven by internal inefficiencies.

The study also reveals that the intensity of opportunity cost differs depending on what MFIs prioritize. For instance, firms that prioritize social efficiency exhibit lower levels of financial efficiency and vice versa. However, those firms that prioritize financial efficiency suffer a much more significant loss in their social efficiency score as opposed to those prioritizing social efficiency. Hence, there is a need to shift policies to promote social efficiency.

For the second step of estimation, determining the indicators that affect financial inefficiency is not necessary since MFIs have proven to be financially efficient from the results of the first step estimation. For social efficiency, despite the presence of inefficiency, there are no significant variables explaining the inefficiency MFIs face. The study may not have covered the appropriate variables.

Lastly, the results are further reflected in the findings on the efficiency of NGOs and non-NGOs. In this study, results have shown that NGO MFIs prefer to prioritize social efficiency, while non-NGO MFIs prefer to prioritize financial efficiency. Alinsunurin (2014) also led to these findings as the study showed that non-NGO MFIs tend to be more financially efficient while their NGO counterparts are more socially oriented. This led the researchers to recommend policies inspired by the practices of NGO MFIs in order to mitigate the mission drifting being experienced by the industry.

Conclusion

Overall, the study was able to estimate the social and financial efficiency of MFIs using the Stochastic Frontier Analysis approach. Results indicate that the MFI industry is financially efficient but socially inefficient. This proves that there is indeed mission drifting as these institutions deviate from their original social purpose to pursue financial gain. The researchers do not discount the fact that financial viability is important for the survival of these firms; however, they should not deviate from their original purpose of catering to the financial needs of the poor. Interestingly enough, when firms are segregated based on their legality (NGO or non-NGO), results show that NGO MFIs prioritize social efficiency while non-NGO MFIs prioritize financial efficiency. This led the researchers to recommend certain practices employed by NGO MFIs to improve the social efficiency of the whole industry.

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