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Comparative Study on Sustainability of Sharia Microfinance Institutions Through Financial and Social Efficiency

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***Abstract**:*

This research analyzes the depth, the breadth, the scope, the length and the worth of the outreach of sustainability with financial and social efficiency.

Secondary data was taken from the Baitul Maal wat Tamwil (BMT), which provides lending to Micro, Small and Medium Enterprises.

The research method is a quantitative descriptive research with verification. The data analysis technique is a Partial Least Square with 5% significance level.

The calculation of efficiency of the data envelopment analysis and the measurement of change in the total factor productivity is performed with the Malmquist index.

Keywords: *Depth, breadth, scope, length, worth, sustainability.*

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1. Introduction

BMT is a financial institution with the concept of sharia, born as an option that combines the concept of *maal* and *tamwil* in an agency activity. The presence of BMT is meant to absorb the aspirations of the Muslim community in the midst of anxiety, economic activities with the principle of usury, as well as supporting the findings to develop activities of empowering small and medium enterprises (Permana, 2017; Setyawati *et al.*, 2017; Suryanto and Ridwansyah, 2016.).

This institution has brought financial benefits to the society, especially to the small society that is not bankable and rejects usualy. BMT runs a sharia economic mission and improves microeconomics even though it has not given a positive signal. As a microfinance institution that has taken the side of the weak economic community, many challenges and problems arose and are faced in the development of BMT. BMT has many features compared to other microfinance providers in Indonesia.

This approach to the fincial system can be implemented among the poor and licensed and supervised by the Ministry of Cooperatives and SMEs (Masyita and Ahmed, 2013). Some BMTs have been incorporated into micro entrepreneur groups such as the Muamalat Business Group (Poskusma). PINBUK or small business incubation centers provide an important role for BMTs with a total of more than 4000 registered BMTs.

Another BMT receives financial assistance from the Ministry of Social Affairs of the Republic of Indonesia called BMT Joint Business Group (KUBE) and consists of 87 branches in 19 provinces. Indonesia also has a primary cooperative called Induk Koperasi Syariah (INKOPSYAH) with 372 BMTs spreading across the island of Java and North Sulawesi incorporated in the container to obtain funding such as financial literacy training and infrastructure development.

Mainly, BMT functions as a social institution, such as Baitul Maal (house of wealth) which acts as a productive collector and distributor of zakat, infak, alms and waqaf (ZISWAF) and is channeled to the rightful recipients according to the provisions in the Quran (QS Attaubah: 60) divided into eight parties (asnaf) putting a high priority on the poor.

On the other hand, as a business function, Baitul Tamwil (house of financing) provides financial mediation through funding and storage arrangements. Pure productive business activities are to benefit the lower and middle sectors of the society (micro). The social function of BMT is related to the provision of interest-free finance (qardhul hasan) to the poor (Juwaini and Mintarti, 2010). BMT also helps promote Islamic values in funding its products in every economic activity.

BMT growth in Indonesia is quite rapid, since until the end of 2012 there are 3,900 BMTs. A total of 206 of them joined the BMT association throughout Indonesia. In 2005, all of the BMTs' 96 associate assets reached Rp. 364 billion. In 2006, their assets grew to Rp. 458 billion and by the end of 2011 the total assets reached Rp 3.6 trillion from 206 BMTs that joined the association (Joelarso, 2012). In its development, in 2013, BMT growth rate has reached more than 5,500 BMTs, spread throughout Indonesia (Mughal, 2014).

This number continues to grow and is estimated to an amount which reaches up to between 567 thousand and 600 thousand units in 2013 (Warta Ekonomi, 2013). This indicates that micro finance institutions are needed by small communities, especially in the regions where it is needed to support the economic growth of the people, especially low-income people who are not covered by banking services. Kholim (2004) noted that BMT spreads most in West Java, namely 637 BMTs (20%), East Java 600 BMTs (19%) and Central Java 513 BMTs (17%). In 2010, however, West Java reported to the Association of BMTs in Indonesia about the decreasing number of BMTs by 54.3% or 291 units compared to 2004. Only 180 BMTs were active, the remaining 111 units (38.14%) were inactive or dormant (ABSINDO West Java, October 2010).

Hermes *et al.* (2011) suggest providing credit for the poor, which in many cases is a very high cost activity. Loans with a very small value will lead to very high transaction costs, especially in the screening, monitoring and administrative costs per loan. Some experts' e.q. Connig, Hulme, Mosley, Lapenu, Zeller, Paxton and Cuevas in Lensink and Meesters (2011) state that the per-unit cost of transactions for very small loans for poor people is highly compared to the cost per unit for large loans.

Therefore, it is important for LKMS to optimize existing resources in minimizing costs, so that the operationalization of the LKMS is efficient. The demand for efficiency, the necessity to mobilize funds from the community or from other commercial sources, directs the LKMS to operate in accordance with market principles or known as the commercialization of MFIs (Charitonenko *et al.*, 2004).

Some research results (Conning, 1999: Train, 2007; Hermes *et al.*, 2011; Nugroho, 2009; Acharya *et al.*, 2006; Ghalib, 2011; Montgomery and Weiss, 2011; Hartarska *et al.*, 2013) indicate a trade-off between sustainability of MFIs with their outreach to the poor. The existence of these conflicts has implications for the shift of focus to improve sustainability, which necessitates a reduction of outreach to the poor.

To date, the topic of trade-offs between sustainability and efficiency with outreach is still debated, especially between the welfares who tend to propagate the dominance of outreached goals, and the institutionalists, which emphasize the importance of sustainability and efficiency (Hermes *et al.*, 2011). Similar controversy also occurs

in LKMS. Trade-offs between the sustainability and reach of MFIs to the poor have been questioned since the 1990s (Conning, 1999; Zeller and Meyer, 2002).

Efficiency-related research in microfinance institutions, such as BMT and Sharia Cooperatives is not as much as in the banking sector since this research cannot be separated between financial and social efficiency. The financial efficiency and profitability of an institution are measured by financial ratios (Hassan and Sanchez, 2009). Financial ratios are unsuitable for investigating various sources of causes of inefficiency, estimating financial and social efficiency through inputs and outputs, and damaging sources of efficiency and non-efficiency, either technically, technically and efficiently or non-efficiently and vice versa (Hassan and Sanchez, 2009).

Microfinance institutions are special institutions that simultaneously consider the social and commercial roles in maintaining the sustainability of their survival. This simultaneous function distinguishes this financial institution from conventional financial institutions. Achieving socio-economic efficiency is imperative in its operations, freedom and broader scale. Measuring the efficiency of microfinance institutions is as important as a form of monitoring and optimizing policies.

The focus of this research is to measure and compare the efficiency of Islamic micro finance institutions (LKMS) such as Sharia Cooperative/BMT both economically and socially, and the relationship between the two and the factors that influence them. The efficiency of BMT is determined by maximizing the prepared resources in order to benefit from the performance. Implementation of strategies and measurement of urgent efficiency is needed to attract investor financing, financial operations, gain profit and improve corporate performance's BMT (Lutfi, 2013).

Efficiency through input approach can be seen from financial statements such as profit-sharing, personnel, general and administrative expenses. With regard to output, efficiency can be seen from third party funds distribution of some of the funds, and other operating income (Ali and Ascarya, 2010; Haq *et al.*, 2009; Gutiérrez-Nieto *et al.*, 2005).

Efficiency in Islam is to give results from an event through an effort. This means that the optimization of output will result in a comparison between inputs to performance. Efficiency can be implemented through adjustment of expenditures in accordance with a predetermined capability (CGAP World Bank, 2009).

Yumanita and Ascarya (2006) describe efficiency in two ways, namely technical and economic efficiency. Technical efficiency regulates the approach of technical issues in BMT, balancing output and the resulting input. Economic efficiency has implications for price stability, or in BMTs are usually associated with profit sharing that negates the interest system. In some studies, they state that one indicator of

efficiency in Islam through the application of the elimination of usury system. The price or additional charge on the mudharib has a major impact on efficiency.

Yuningrum (2012) mentions that BMT inefficiency occurs due to less than optimal input management while the output, exceeds or is less than normal capacity. The amount of savings owned by BMT does not affect the value of its output. Meanwhile, the capital and acceptance of operational expenses, such as financing, revenues, operations and profit sharing are very influential on the output.

In some microfinance institutions there are doubts about the conflict between profit and social concern, a question that sometimes becomes as a paradox of social costs (Pava and Krausz, 1996). Several studies have examined the overall relationship between social and economic efficiency and analyzed the factors that determine how microfinance institutions can improve their perspectives.

Gutierrez-Goiria *et al.* (2016) state that there is a positive correlation of social and economic efficiency, compatible with each other and this issue is generally controversial with the realities on the ground. High positive correlations have been found, where achieving social value is maintained without neglecting economic goals so that the sustainability of microfinance institutions.

Pava and Krausz (1996) conducted a total of 21 empirical studies, in which 12 studies have found a positive relationship between financial performance and social awareness, while 8 studies have no relationship between the two and only one is negatively correlated. Previous researchers found results that traditional economies assume a negative relationship between financial performance and social responsibility, which is difficult to maintain.

2. Literature Review

Depth of Outreach:

Reaches are broadly divided into two, namely: depth of outreach and breadth of outreach. The rapid growth of microcredit, the extent of coverage is increasing both at the industry level and at the individual MFI level. Microfinance institutions that pay more attention to the scope of coverage tend to be difficult to have the same attention as the depth of reach because both require substantial resources (Handayani, 2013). The depth of reach receives more attention from all concerned about the overall social outreach of microfinance, including policy makers.

Limitations in measuring depth of outreach are the absence of income information to measure the poverty rate of borrowers. Since the borrower's wealth data is not collected, the income / wealth data is not available to the researcher. Therefore, the most widely used measure is the average number of loans per borrower (Average Outstanding Loans / AOL).

The requisite amount of credit requested usually corresponds to the borrower's ability to return the credit. The impact is expected to be a strong correlation between the average loan amount and the average income and income is an indicator in measuring poverty.

Quayes (2012) reveals that there is no perfect measure of poverty levels, it is very good at measuring the depth of reach because there is a strong positive correlation between the income level and the size of the loan. In other words, the poor borrower will be smaller than the size of the loan. Based on theories of depth range in similar research conducted previously and adjusted to the data and condition of the research object is assumed to be age variable, ROA, proportion of trade sector borrowers, proportion of agricultural sector borrowers and number of female borrowers influences the average loan amount (AOL) used as a proxy depth of coverage. Hesi (2017) revealed in his research that the depth of loan coverage in BPR is influenced by profitability, regulation, socio-economic, local culture and syariah compliance.

Breadth of Outreach:

Kinde (2012) explains that the number of borrowers as a breadth of outreach proxy can provide improved financial sustainability in microfinance institutions. These variables indicate a positive relationship between the number of borrowers and the sustainability of microfinance institutions. Anne-Lucie *et al.* (2005), Yaron (1997), Okumu (2007) describes the range to expand microfinance services for people who are poorly served by financial institutions.

The breadth of the number of clients served and the volume of services such as the total savings in deposits and unfinished portfolio totals measure this range. Rhyne (1998) explains that there are two aspects that are often used to reach poverty, namely depth and breadth. Wide range refers to the scale of operations of micro financial institutions. Schreiner (2001) cited in Woller and Schreiner argued that range should be measured through depth, user pricing, cost to users, breadth, length and scope.

The broad aspect relates to the number of participants that BMT can serve. More and more financing recipients indicate that contributions to society are widespread. Its meaning is that BMT can help micro business community increase in number and also play wider role for economic strengthening of society member.

Another important point is that more and more people served with Islamic finance will have an increasingly widespread practice of usury liberation. The amount of assets plays an important role, the higher the assets owned the higher ability of BMT to be able to provide financing to micro enterprises.

Length of Outreach:

Schreiner (2002) says that the outreach period is the time frame in which Microfinance Institutions generate loans or products and services. The long-time

concern issue concerns the welfare of the poor now and in the future. Without long reach, MFIs can improve social welfare in the short term but destroy their ability to do so in the long term. Rama (2014) defines the period of outreach as a financial or other financial performance indicator as a return on equity, profit margin or asset return, in addition to indicators suggesting sustainability, institutions such as operational self-sufficiency, number of years of operation, average annual changes in equity (regardless of source), average annual cash flows, risky portfolios, loan deletions, or customer indices of additional indicator satisfaction explicitly, recognize that financial independence is unnecessary and inadequate for institutional sustainability, and they provide other relevant factors assessing the length of outreach .

This is related to how long BMTs can provide financing to the micro business community. Problems that must be realized in the development of micro-enterprises require a long time so that the availability of funds for the financing of micro-enterprises should be available within a long period of time.

This means that BMT must have the ability to provide financing for a long time (sustainability). Since BMT is a non-subsidized microfinance institution, profitability has an important meaning in sustainable micro-enterprise services. Profitability can be a signal of BMT's ability to serve micro businesses for the future.

Scope of Outreach:

Rama (2014) defines the scope of outreach as the number of different types of loans, savings, insurance and other products offered broken down by product line or product type. The challenge that measures the coverage of outreach is how to determine the products and services, in dorder to capture meaningful differences.

Any variation in contract terms can be counted as a separate product or service. For example, it is conceivable that the MFI may offer the same loan product with four repayment options based on credit history. Is this being counted as four loan products or as one? According to Thys and Barres (2004), when MBB asks MFIs to report on the range of products offered, the MFI uses a variety of definitions.

Consequently, it is necessary to develop a clear definition of the products and services to avoid similar confusion. The scope of outreach includes: the difference in the number and types of loan products offered, the difference in the number and types of savings products offered and the difference in the number and types of voluntary non-financial services offered (Woller and Schreiner, 2004).

Worth of Outreach:

Feasible for the user is the willingness of the client to pay without burdening his life, for example a family member dropping out (Rama, 2014). Repurchase is the best and easiest way to measure value. The simplest proxy for repetitive loan values. If

clients pay and get back to get more loans, they may believe that they benefit. Presumably, clients who value loans are more likely to meet the terms of the loan contract and tend to overcome the repayment. Admittedly, gathering information about financial transactions and wallet share will be difficult.

Presumably, the lower is the interest rate charged to the average market rate, the greater is the value creation for the client. Measuring the value of savings conceptually is more difficult than measuring the value of the loan. For example, many savings accounts are inactive, resulting the difficulty in using the age or duration of saving as a savings account holder to be a valuable indicator.

Sustainability:

The consequence of the absence of funding from donors or subsidies from the government then the operationalization of LKMS leads the commercial to achieve the sustainability of its business. Hamada (2010) conducted a research that the operationalization of LKMS in Indonesia has led to the commercialization that requires LKMS to be efficient. Efficiency demands arise in the early stages of operationalization of the LKMS, where there is a demand for LKMS to cover all costs incurred from institutionalization of the institution, by optimizing the use of inputs in the form of labor costs and the cost of funds to maximize its output, namely financing.

The approach taken by Hartarska *et al.* (2013) states that the goal of sustainability and outreach (serving the poor) can be achieved through minimizing costs. Thus, the efficiency concept used in this analysis is cost efficiency. The measure of cost efficiency in this terminology, referring to Berger and Mester (1997), is how closely the actual cost of lending activities to the MFI compares with the cost of an MFI operating at its best performance level, to produce the same output and under the same conditions also.

This cost efficiency can measure cost reductions that can be achieved due to the allocative and technical efficiency. Since the cost function is not directly observable, the inefficiency is measured by comparing it with its frontier in terms of cost efficiency.

Efficiency:

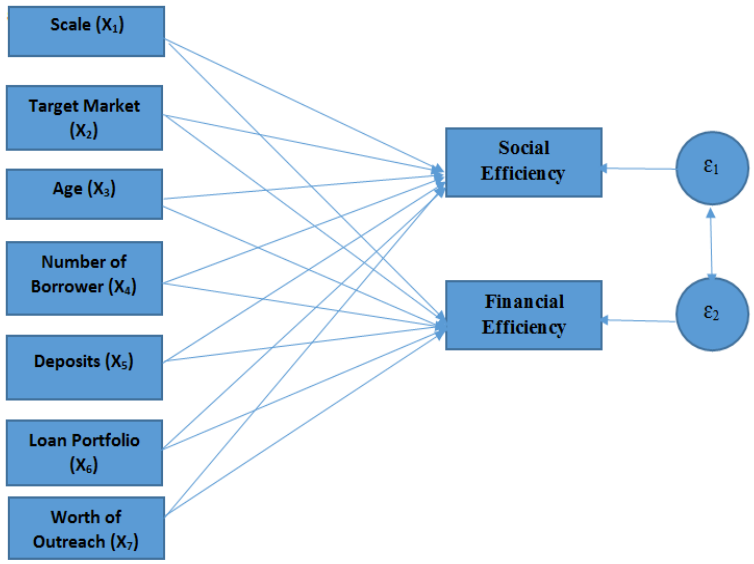
Efficiency is divided into three measurements, technical, allocative and efficiency scales. According to Wezel (2010), technical efficiency has the ability to make decisions in maximizing the output provided input. Allocative efficiency focuses on the ability to make decisions in production by combining prices in the market. Scale efficiency deals with decision making to optimize measurements.

Sarker (1999) says that the bank's efficiency model to test bank efficiency in Bangladesh. Islamic banks can survive in conventional banking where profit and

loss are less dominant. Sarker (1999) argues that Islamic products differ in their characteristic risk and consequently different regulatory requirements.

This study has conducted completely different from previous studies. Based on previous research mapped in the matrix it can be explained that some previous studies were more focused on the factors affecting financial and social efficiency as well as the relationship between the two efficiencies. Other researchers analyze more the relationship between depth variables, breadth and length range. The sub-variables in which the scale, loan portfolio, target market, the number of borrowers and deposit relation to the efficiency, affect the sustainability.

Figure 1. *Theoretical Framework*



Hypotheses:

Hypothesis 1: The scale has a significant effect on financial efficiency;
Hypothesis 2: The loan portfolio has a significant effect on financial efficiency;
Hypothesis 3: The target market has a significant effect on financial efficiency;
Hypothesis 4: The number of borrowers has a significant effect on financial efficiency;
Hypothesis 5: Age has a significant effect on financial efficiency;
Hypothesis 6: Deposits have a significant effect on financial efficiency;
Hypothesis 7: The worth of outreach has significant effect on financial efficiency;
Hypothesis 8: The scale has a significant effect on social efficiency;
Hypothesis 9: The loan portfolio has significant effect on social efficiency;
Hypothesis 10: The target market has a significant effect on social efficiency;
Hypothesis 11: The number of borrowers has a significant effect on social efficiency;

Hypothesis 12: The portfolio age has a significant effect on social efficiency;
Hypothesis 13: Deposits have a significant effect on social efficiency;
Hypothesis 14: The worth of outreach has significant effect on social efficiency;
Hypothesis 15: Financial efficiency has significant effect on social efficiency;
Hypothesis 16: Social efficiency has a significant effect on financial efficiency.

3. Methodology

The method used in this research is exploratory research where the research is derived from a set of theories which subsequently formed the hypotheses that aim to test the theory through a built mode. The steps in testing the hypotheses were through inferential approach, so they can be proven through empirical method which will finally provide conclusion at the end of the research.

The analysis method starts from looking at the characteristics of the data through descriptive statistics and then multivariate model analysis of data analysis including factor analysis and Partial Least Square (PLS), an alternative method of analysis with Structural Equation Modeling (SEM) based on variance.

This analysis is the development of the SEM structural equation model first introduced by Wold in order to maximize the variance of the dependent variable which can be explained by the independent variable by generating the covariance matrix empirically. Like SEM, the PLS model consists of a structural model, which reflects the relationship between latent variables, and the measurement component showing the relationship between latent variables and indicators (Haenlein, 2004).

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