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Social Outreach Model and Efficiency in Sharia Micro Finance Institution: Literature Review

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Abstract:

The aim of this research is to propose a model of social outreach in the Syariah Micro Finance Institution, which covers the Koperasi Syariah and Baitul Maal wa Tamwil in Indonesia.

The data were taken from the financial reports, documentation, observation and field interviews. The research applies mixed empirical methods by combining two forms of quantitative and qualitative methodologies through the sequential explanatory strategy.

The weight and the priority were given to quantitative data. The mixing of the data couldn't be performed in each stage (partial), so we eliminated the methodologies in the partially mixed sequential dominant status design only.

The efficiency calculation uses the input and output samples with the analysis instrument of Data Envelopment Analysis (DEA). Meanwhile, the inter-relationships between variables uses the multivariate analysis. The secondary data triangulation, interview and focus groups were expected to improve the credibility of the findings.

The results from other studies (literature review) explain that there is a partial or simultaneous influence, there is a trade-off and also correlation between financial and social efficiency.

Keywords: *Social outreach model, sharia finance, efficiency.*

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1. Introduction

The role of SMEs within the national economy has empirically proven either in a normal condition or during the time of crisis. There are two important indicators, the contribution in the sector of gross domestic product (PDB) and the absorption of human resources. According to Statistics Indonesia in February 2014, SMEs have touched the lives of 125 million people or almost half the population of Indonesia with 56 business units in Indonesia and their 107.7 million workers. The biggest obstacle faced by this sector is the lack of funding or capital. The distribution of banking credit has become important in the business development. Based on the Bank Indonesia's 4th trimester SME Credit Development Report 2014, the distribution for medium industry is 47.5%, small industry 29.7%, and the other micro industry of 22.8%. Islamic Banking has a significant influence on the development of SMEs and the economy.

The activity of Sharia Micro Finance Institution (LKMS) is principally the same as the conventional LKM, although there are some differences in terms of their contract (*akad*) and transaction where the sharia system does not allow for bank interest. Although most of clients were Muslims and indicate preference for Islamic MFIs, in reality their choices of MFI were based on economic (low interest rates, low collateral and size of loan) and non-economic factors (such as quality of services variables; easiness, speed/fast, nearness, payment method and loan officers' profile). There appears to inconsistency in the behavior whereas conventional MFI's clients preferred an Islamic MFI and Islamic MFI's clients preferred a conventional MFI (Masyita and Ahmed, 2013). Through this sharia system, forms of financing for small businesses are developed through the use of profit-sharing system. The key important value of Islamic Banking is the implementation of the interest free principle and profit and loss sharing (PLS) within the business performance. The combination between PLS and *akad* provides a fair and just portion for both parties in profit sharing through *mudharabah* accordingly with contract agreement. Meanwhile, the risks are the burden for the capital owner as long as the loss are not caused by the management's fault.

The development of sharia banks is followed by the development sharia financial institutions outside of the banking structure, as *Baitul Maal wa Tamwil* (BMT), Takaful Insurance, Sharia Stock Market and Sharia Fiduciary Institutions. The success of sharia banking in Indonesia is closely related to the role of Sharia Micro Finance Institution (LKMS). The position of LKMS that is represented by *Bank Perkreditan Rakyat Syariah* (BPRS)/People's Sharia Credit Bank, BMT and *Koperasi Pesantren* (Kopontren)/Islamic Boarding School Cooperative is highly vital and reaches the sharia transaction in remote regions that cannot be served by common banks or bank-owned sharia business units. The micro finance institutions emerge as a response to the majority of the people who do not have adequate access to conventional finance institutions as an impact of the population growth (World Bank, 2014).

The lack of access is the main factor that hinders the people to interact with the formal finance system, such as financing geographical and social issues, and sometimes also the questions on documentation. These issues are not new and a number of efforts to respond to them have been made, although the micro finance institutions appear to become the highest potential option to solve their problems.

The overwhelming expectation on micro finance institutions, the result and evidence of poverty due to malpractice have become a deeper analytical consideration. Various assumptions that this type of program is not always positive, but on the other hand, a deeper attention is needed for the social impact and prevention of overwhelming debt, and also abuse as occurred in Bolivia and Andra Pradesh, India (CGAP, 2010). A number of studies have analyzed the internal and external factors of failures in micro finance institutions (Sainz-Fernandez *at al.,* 2015). In a hypercompetitive environment the innovations of small and medium-sized companies become the crucial activity that decides their survival. Process innovation management and the evaluation of its efficiency and time are key competitive advantages in relation to big companies (Havlíček, Thalassinos, Berezkinova, 2013).

Sakai and Marijan (2008) explain that there is an imbalance in the sector of BMT due to the unintegrated formal financing system according to the regulations of the OJK/Financial Services Authority, and the limited number of comprehensive empirical studies. Seibel (2005; 2007) produces a wider scale research showing that the number of LKMS sustainability level is still substantially low, no more than a fifth of the well-performing BMT. The limited data has made it difficult for the gaining knowledge on the condition and mapping, and also a holistic evaluation to mend the BMT condition (Seibel, 2005).

Table 1: *Number of BMTs in Indonesia*

No	Stage	Period	Number of BMT (Unit)
1.	Initial growth	1990 - 1995	300
2.	Rapid growth)	1996 1997 1998	700 1.501 2.470
3.	Slowing growth	2000	2.938
4.	Stagnan and decline	2001 2003	3.037 2,856
5.	Re-expansion	2007	3.200
6.	Decline	2010	3.174
7.	Re-expansion	2011	5.500

Source: *Seibel and Agung, 2005; Pinbuk, 2008; Amin, 2010; Kemenkop, 2011; Wediawati, 2017.*

Kholim (2004) records that the most BMT distribution is in West Java, with 637 BMT (20%), East Java 600 BMT (19%) and Central Java 513 BMT (17%). In 2010, West Java files a report to the BMT Association for Indonesia on the declining number of BMT to 54.3% or leaving only 291 unit compared to 2004. Then, there were only 180 active BMT, and the remaining number of 111 units (38.14%) were inactive or dormant (ABSINDO West Java, October 2010). Based on previous studies, the aspects that influence financial and social efficiencies are the following: depth of outreach, breadth of outreach, length of outreach, and scope of outreach. Rama *et al.* (2015), propose a concept of 6 (six) dimensions to measure the sustainability of micro finance institutions either financially or socially by adding the cost of users and worth of users. The problem formulation, therefore, are the following:

1) Do the variables of depth, breadth, length, and scope of the outreach have the influence either partially or simultaneously on the financial and social efficiencies of sharia micro finance institution?
2) Is there a trade-off between the social and financial goals in the management of sharia micro finance institutions?
3) How is the correlation between the financial and social efficiencies of sharia micro finance institutions?

2. Theoretical Review

2.1 Depth of outreach

Depth of outreach receives higher attention from all the parties who care about the total social outreach of micro finance, including the policy makers. The limitation in measuring depth of outreach is the lack of income information to measure the poverty level of the loan applicant. The construct of depth of outreach according to Schreiner (2002), Paxton (2001), Ledgerwood (1999), Rhyne (1998), Quayes (2012), Paxton and Cuevas (2002) is the widening (scale) and target market of the composition of sex, composition of rural and urban clients, household characteristics, large household, and the high level of dependency, population of senior citizens who that represent the inferior, and education status. The number of loan applicants/borrowers or clients as the measure for outreach only considers the number of clients served from that varieties of micro finance institutions' products without looking at the level of poverty. The depth of outreach is intertwined with the poverty level of the micro finance institutions' clients, there is no perfect measurement from the level of poverty, there is a strong positive correlation between the level of income and the amount of loan.

The indicators for the depth of outreach according to Schreiner (2002), Gulli (1998), Mersland and Strom (2009), Cull *et al.* (2007), Hermes *et al.* (2011), Ledgerwood (1998), Hermes *et al.* (2011), Rama and Tamrat (2015) are the average loan size, GDP percentage per capita, percentage of female clients, income and prosperity, sex, location, access to public facility, education, housing, ethnicity, and durability.

2.2 Breadth of outreach

Kinde (2012) explains that the number of loan applicants/borrowers as the measurement proxy for the breadth of outreach can provide the repair for the financial sustainability within micro finance institutions. The construct for breadth of outreach according to Anne-Lucie *et al.* (2005), Yaron (1997), Okumu (2007), Navajas *et al.* (2000) is the outreach to widen the micro finance service for the people less serviced by financial institution. Micro finance industry is supposed to have a large-scale outreach to make a difference in the world's poverty level.

Therefore, the indicators for breadth of outreach according to Rama and Tamrat (2015), Okumu (2007), Ledgerwood (1998), Copes (2007) refer to the number of clients, percentage of the change in the number of served clients and the type of product and program, i.e. business loan, consumption loan, savings and insurance. Breadth of outreach is also measured through the volume of total service for saving deposits and the total of unfinished portfolio.

2.3 Length of outreach

The length of outreach according to Schreiner (2002) and Rama (2014) is the duration of outreach—the timeframe when micro finance institutions yield loans or product and service that provides financial adequacy or other financial performance indicators as the benefit for the equity, profit margin, or asset return, other than the indicators that suggest for sustainable organization. Therefore, the indicators for the length of outreach according to Schreiner (2002) and Rama (2014) is the timeframe (age) of the organization, yield of the equity, profit margin (profit orientation) and asset return.

2.4 Scope of outreach

The challenge to measure the scope of outreach is how to decide for the products and services to capture a meaningful difference. The construct of scope of outreach according to Thys and Barres (2004), Rama (2014) and Woller and Schreiner (2004) is the number of varieties of loans, savings, insurance and other offered products based on the lines or the types of products, which include the difference in the amount and type of offered loans, the difference in the amount and type of offered savings product, and the difference in the amount and type of offered voluntary non-finance service. Therefore, the indicators for the scope of outreach according to Thys and Barres (2004), Rama (2014), Woller and Schreiner (2004), Maududi (1985) and Mas'udi (1993) is the type of loan, savings, insurance, and other products, types on non-financial services such as *zakah*, *infaq*, and *shadaqah*.

2.5 Financial efficiency

Efficiency has become the focus of attention for companies in improving their performance to yield larger profit through the improvement of income and pressing the sacrificed costs. Berger and Mester (1997) define the measure of cost efficiency as how close the actual cost in the funding loan activity is to the cost of LKM that operates on its best performance to yield output and similar condition. Cost efficiency can measure the cost deduction that can be achieved due to technical and allocative efficiency.

Micro financial efficiency is how good micro finance institutions allocate their input, such as staff, asset, and subsidy to yield maximum output, such as number of credits, independent financial adequacy or profitability and poverty outreach (Balkenhol, 2007). Annim (2010) provides the definition for efficiency as an optimum combination in the forms of the time of staff, number of staff, and operational cost to achieve the maximum number of credit and clients it means that LKM is said to have the efficiency when there is an effort from the management to concentrate on the activities that can yield minimum cost on each unit and client. Gonzalez-Vega (2003, as cited in Martinez-Gonzalez, 2008) suggests for a potential technical training for staff in the field of micro finance, and to see if there is an incorrect implementation in funding. The lack of incentive package also influences the staff and managers' attitude in decision making, policy making and policy implementation, regulation error, investors' inappropriate intervention, error in the product design, and highly consumptive methodology. The repair for the micro finance sector is not useful when unnecessary waste still occurs (Martinez-Gonzalez, 2008). According to Kokkinou (2010), LKM is assumed as a production unit or product yielding company, that works on regulation and environment, utilizes the same input and operates the technical and economic aspects efficiently. This institution naturally has a double task—the social and financial objectives.

Institutionalist thoughts are more focused on the financial aspect and attention on the adequacy and independent sustainability (Serrano-Cinca *et al.*, 2009). Cull *et al.* (2007) finds that the LKM moving based on loan for their clients is healthier, has better performance that influences the profitability, but it is more limited on the depth of outreach or degree of poverty. This apparently indicates the evidence of a trade-off between financial and social performance. Gonzalez (2007) strengthens this finding, where the repair in efficiency does not support the number of loans per staff, but for the improvement of average loan size, so there is an expense for the poorest client. Furthermore, Hartarska *et al.* (2013) also contend that in an input market, LKM takes the role of price takers, since it pays for competitive salary for its relatively educated workforce, competes with the others for access on financial capital (loan and donation), and participates in the competitive market for physical capital. Some of the LKMs participate as the entity that orientates on profit, although the majority are still operating as non-profit. However, not all the LKM maximizes their profit, since all make effort to minimize cost.

2.6 Social efficiency

As a financial institution, the main activity of BMT is to provide financing services and profitable savings. The larger it is for a BMT to reach for their clients can make for a larger economic scale, so their operational cost can be more efficient. BMT with a good skill of market outreach shown by the ease of access for the clients and loan applicants/borrowers tend to have good performance. It can be said that the wider the market outreach then the number of served clients or members is higher, which also means that the gained funding mobilization and the amount of granted loans are higher. The factor of market outreach theoretically and practically serves as the main requirement to form a sustainable BMT. Descriptively, the factor of market outreach according to Robinson confirms for the quality of LKM service is formed from outreach.

Profit does not only serve as the requirement for BMT to maintain the program sustainability, but also as the requirement for future organizational development and the signal on the efficient sources allocation. Profit has become the requirement to convince the community to place their fund and to provide a wider benefit. Besides, the social responsibility related to the organizational obligation has maximized the positive impact on the stakeholders and reduce the negative impact that may arise until the lowest level. In the context of Islamic financial institution, the form of social obligation refers to the Islamic financial institution's implementation of inviting others to righteous deeds (*halal*) and prohibiting them on wrong deeds (*haram*). The implementation of *halal* activities is expected to invite benefit for the needs of the community. In contrast, prohibited activities may result in negative impact on the community, such as usury-based business activity, gambling, *gharar*, and alcohol production or other community endangering products.

3. Previous Studies

Table 2 presents previous studies with the name and the year of the research, the main variables, the research method and the finding as a compact literature review in this field.

Table 2: *Previous Studies*

No	Researcher(s)/Year/ Title	Variable(s)	Research Method	Research Finding
1.	Gutiérrez-Goiria et al. (2007): Social Efficiency in Microfinance Institutions.	Social efficiency, financial efficiency, ROA, ROE, age, transparency and geographical location, women and prosperity index.	Data source were 89 Micro Finance Institution MIX Market database, analyzed using Data Envelopment Analysis (DEA).	There is a positive insignificant correlation between social efficiency and finance. There is a positive significant relationship between women support efficiency and efficiency within prosperity. Geographical

				area becomes an important factor, there is no relationship between profitability, age, and information with efficiency.
2.	Oteng-Abayie (2011): “The Measurement and Determinants of Economic Efficiency of Microfinance Institutions in Ghana: A Stochastic Frontier Approach.”	Economic efficiency, total cost, salary, payment interest rate, number of active borrowers, savings, gross loan portfolio, cost per borrower, age.	Data take were 135 Micro Finance Institution in Ghana, taken from Microfinance Information Network (GHAMFIN), Association of Credit Unions (CUA), analyzed using Stochastic Frontier Approach and multivariate analysis.	Savings and cost per borrower support for the scope and economic scale. Cost per borrower indicates that Micro Finance Institution keeps on performing efficiency reparation.
3.	Kinda (2012): “Financial Sustainability of Microfinance Institutions (MFIs) in Ethiopia”	Financial efficiency, number of borrower, loan size, capital structure, dependency ratio, cost per borrower, productivity (proxies of borrower per member and saver per member)	Data source were taken from national bank of Ethiopia and MIX Market database, analysed using multiple linear regression	Number of borrowers, loan size, dependency ratio and cost per borrower are the important variable in the decision for finance sustainability in Micro Finance Institution in Ethiopia. Meanwhile, Meanwhile, cost per borrower and productivity do not have any significant influence.
4.	Marr et al. (2012): “Microfinance Social Performance: A Global Empirical Study.”	Social performance, age, profit status, regulation status, loans per loan officer, asset	The number of data is 878 Micro finance institutions in 98 countries and taken from MIX Market database, analyzed using multiple regression analysis.	Variables of age, regulation status, loans per loan officer, asset have a significant influence on social performance. Meanwhile, profit status does not have a significant influence.

5.	Heidmann and Nilsholm (2012): Compatibility between Outreach and Efficiency in the Microfinance Market."	Social efficiency, average loan balance, the number of female loan applicants/borrowers, age, region	Data were collected from Micro finance institutions through MIX Market database. Analyzed using Stochastic Frontier Analysis (SFA) and correlation	Social outreach has a negative correlation on efficiency Micro finance institutions. The high number of female loan applicant percentage does not have positive correlation on the high level of inefficiency.
6.	Arodi (2013): "The Relationship between Outreach and Financial Sustainability of Microfinance Institutions in Nairobi County."	Financial sustainability, the number of female loan applicants/borrowers, number of branches, number of young clients, number of disabled clients, number of farmer clients, number of clients operating "Jua Kali"	Data were collected from Kenya Women Finance Trust (KWFT) and analyzed with multiple linear regression.	Variables of the number of female loan applicants/borrowers, number of branches, number of young clients, number of disabled clients have a positive influence on profitability. Variables of number of farmer clients, number of clients operating "Jua Kali" do not have a significant influence on profitability.
7.	Karanja (2014): "Relationship Between Outreach and Financial Performance of Deposit Taking Microfinance Institutions in Kenya."	Financial performance (ROA), number of active loan applicants/borrowers, average loan size, number of new loan applicants/borrowers	9 Micro finance institutions were taken as data sources in Kenya, analyzed with multiple linear regression.	Average loan size, number of loan applicants/borrowers, ROE, number of new loan applicants/borrowers have a positive significant influence on social outreach. There is a strong positive relationship between social outreach and financial performance.
8.	Widiarto and Emrouznejad (2015): "Social and Financial Efficiency of Islamic Microfinance Institutions: A Data Development Analysis Application"	Social efficiency, financial efficiency, sceme, operational region, age, profit orientation, loan portfolio, customer target and regulation	Data were collected from MIX Market database, analyzed with DEA	Islamic micro finance institutions can be measured through double bottom line, i.e. social and financial efficiency, and the result can be compared with conventional micro finance institutions.

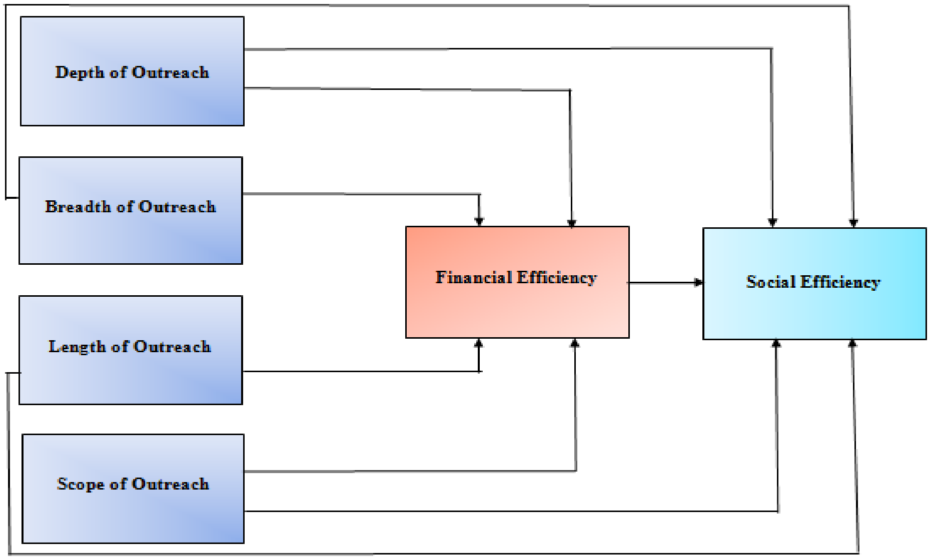
9.	Gutierrez-Goiria et al. (2016): "Social Efficiency in Microfinance Institutions: Identifying How To Improve IT"	Social efficiency, economic efficiency, scale, target market, age, legal status and region	Data sources were collected from Microfinance Information Exchange (MIX) Market database, analyzed with Data Envelopment Analysis (DEA) and multivariate analysis	Legal status and target market as the determinant factor of efficiency, while, age and scale do not have any influence. There was a positive correlation between social and economic efficiencies.
10.	Hossain and Khan (2016): "Financial Sustainability of Microfinance Institutions (MFIs) of Bangladesh."	Financial sustainability, age, size, loan, debt to equity ratio, deposits, the number of female loan applicants/borrowers, capital assets ratio, operating expenses, write off ratio, loan applicant/borrower per staff member	Data were collected from 86 Micro finance institutions in Bangladesh through MIX Market database. Analyzed with econometric analysis.	Capital assets ratio, operating expenses, and write-off ratio have an influence on financial sustainability. Meanwhile, size, age, loan applicant/borrower per staff member, loan, debt to equity ratio, deposits, the number of female loan applicants/borrowers do not have an influence on financial sustainability.
11.	Kar and Deb (2017): "Efficiency Determinants of Microfinance Institutions in India: Two Stage DEA Analysis"	Financial efficiency, social efficiency, operating expenses, number of staffs, gross loan portfolio, number of active loan applicants/borrowers, portfolio at risk more than 30 days, ROA, ROE, operation scale	Data sources were collected from Micro finance institutions in India through MIX Market database. Analyzed with DEA with BCC and Undesirable Measure Model.	Gross loan portfolio, number of active loan applicants/borrowers, ROE, operation scale has a significant influence on financial and social efficiencies
12.	Roy, P. (2017): "Unearthing the Double Bottom Line Commitments of Indian	Social efficiency, financial performance, sustainability, number of active loan	Data were collected from 100 Micro finance institutions in India through Market	There is a variation of performance indicators and efficiency, and operational balance of double bottom line in micro finance institutions, especially related to scale

	Microfinance Institutions”	applicants/borrowers, gross loan portfolio, number of staffs, risk, legal status, age	database and analyzed with econometric analysis	outreach such as number of loan applicants/borrowers

Source: *Compiled by Researcher, 2018.*

Based on literature review and previous research above, the research model is:

Figure 1: *Research Model*



Source: *Adjusted by Researchers, 2018.*

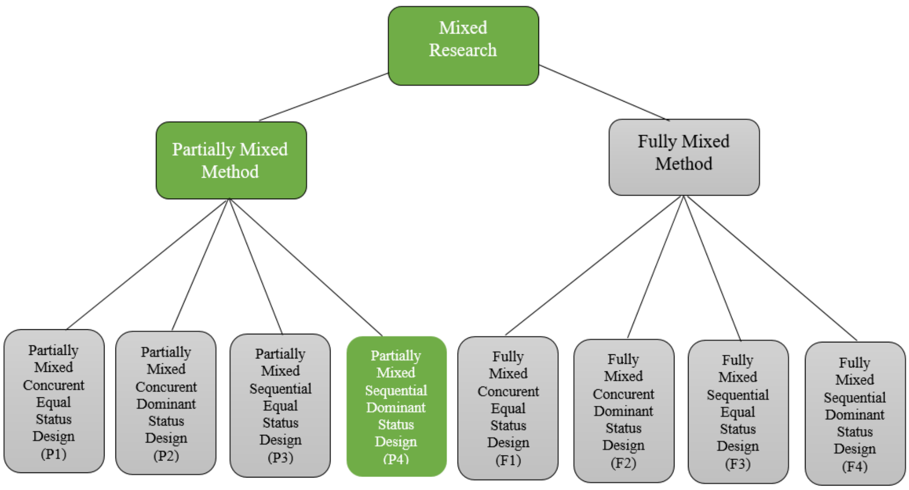
4. Research Method

According to Sugiyono (2011), research is a systematic, methodological, and consistent construction of scientific activity based on analysis and it aims to reveal the truth as one of the manifestations of the willingness to manage know what is currently being faced. Research method has a tight relationship with procedure, technique, tool, and the implemented research design. The research design is the blueprint that directs the research to be specific and according to its aim. The research design process involves interrelated multiple decisions, among them is the research approach that can describe how information is achieved (Aaker *et al.*, 2013).

In broad guideline the research approach can be categorised into three categories, exploratory, descriptive, and causality. These three types of research are different in their objectives, formed hypotheses, and data collection method (Aaker *et al.*, 2013). Research exploratory aims to dig and identify the problem information, so it can provide insights and understandings to the researcher (Malhotra, 2010). The descriptive research aims to provide accurate depiction from the researched aspects, while the causality of the research is to identify when a variable influence other variable.

This research applies mixed methods, which is to combine two forms of approaches—qualitative and quantitative. The mixed method research is an approach that combines qualitative and quantitative researches (Creswell, 2010). This approach is used because the use of only one approach, qualitative or quantitative only, cannot answer the problem and objective of a research (Creswell, 2013). Meanwhile, according to Sugiyono (2011), mixed methods is a research that combines between two research methods at once, qualitative and quantitative in a research activity, so a more comprehensive, valid, reliable, and objective data can be obtained. This method is more focused on the variable of financial efficiency and social efficiency, so the interrelationship with the variable of depth, breadth, length, and scope of outreach can be explained deeper.

Figure 2: *Type of Mixed Method Research*

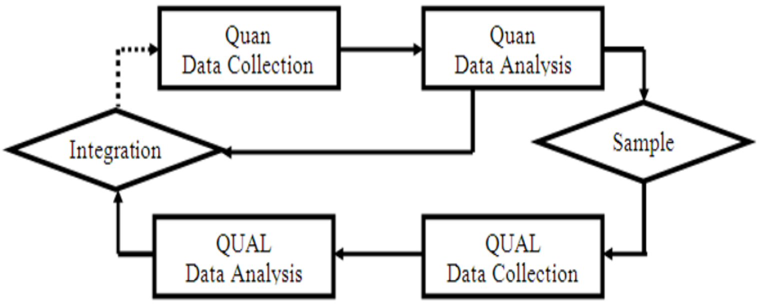


Source: *Leech dan Onwuegbuzie, 2009.*

The strategy used is sequential explanatory. In this strategy, the first stage is to compile and analyse quantitative data, and then followed collecting and analysing the data built from the initial qualitative result. The weight or priority is given on quantitative data (Creswell, 2013; Leech and Onwuegbuzie, 2009). The qualitative method is used to provide explanation in the findings of the quantitative method. Steckler *et al.*, (1992) propose the model as "qualitative methods are used to help explain quantitative findings". Morse (2010) also adds that the design is noted with KUAN→kual. The arrow sign shows that the research is performed sequentially, while the superscript KUAN—an acronym of quantitative—indicates priority or dominant weight. The data mixing is not done within each of the research stages (partial), so this research belongs to the partially mixed sequential dominant status design (P4), as shown in Figure 2.

The model is used when the quantitative phase begins before the qualitative phase. The statistics data in the first phase provides and empirical basis to choose the sample of the respondents for the qualitative phase. The qualitative (QUAL) phase uses the superscript to give more weight to answer the research question. The integration of the findings from the two phases occurs after the data analysis, which is then partially mixed (Leech and Onwuegbuzie, 2009). Although the quantitative phase is based on several variables, it provides narrative data as a complement for the qualitative phase. Secondary data triangulation, interview, and focus groups are expected to improve the credibility of the findings (Creswell, 2007), and it is presented in Figure 3 below:

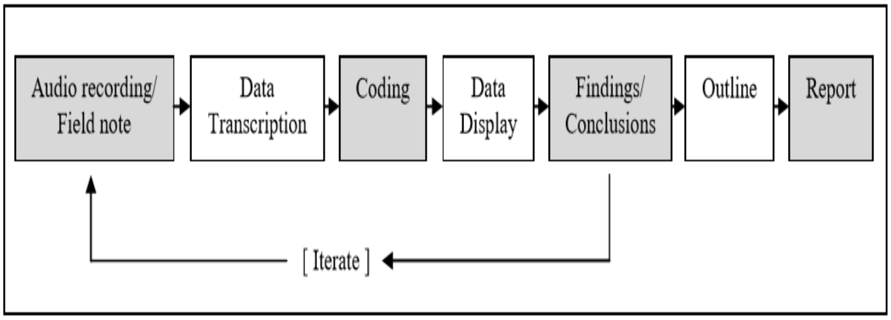
***Figure 3**: Partially Mixed Sequential Dominant Status Design*



***Source:** Leech dan Onwuegbuzie, 2009*

Quantitative data collection is based on the BMT finance report and *Koperasi Syariah*, and also from the use of questionnaire (survey) to clarify and deepen the existing information. Meanwhile, qualitative data are obtained from in-depth interviews and observation. The process of data transcription, coding, data analysis, and report writing is shown in Figure 4 below:.

***Figure 4**: Analysis of Data Qualitative Process*



***Source:** Adopted by Miles and Huberman, 1994.*

The interview record was initially transcribed from the form of audio to verbatim note, without any alteration, keeping the originality of the data before the analysis, using the analysis method that involves various coding exploration processes (Miles and Huberman, 1994, as cited in Abd-Karim *et al.*, 2010). This research's unit of analysis is the BMT/*Koperasi Syariah* which widely distributed in West Java and it is legally active. The units of observation and interview were focused on the managers or coordinators of the BMT/Kopsyah.

However, the consideration to use the structural leader of the institution was because the respondents understand the concepts of social outreach and efficiency that have to be organised. The finance report data collection was done during the period of 2016-2017. The analytical method began from looking at the data characteristics through descriptive statistics, efficiency, and multivariate model analysis. Descriptive statistics was used to provide a more general picture for the data, in relation to the studied variables, so they can explain the existing characteristics by explaining the sum of the values. The mean, maximum, minimum, and standard deviation are the parts explained in the descriptive analysis.

The analytical tool used to test the efficiency was the data envelopment analysis (DEA) with both input and output variables. Multivariate analysis uses the linear regression. The factor of outreach highly determines the financial and social efficiencies for BMT/Kopsyah in Indonesia especially the ones that relate to depth, breadth, length, and scope of the outreach.

5. Discussion

The factor of outreach highly determines the financial and social efficiencies for BMT/Kopsyah in Indonesia especially the ones that relate to depth, breadth, length, and scope of the outreach.

5.1. Relationship between depth of outreach on financial efficiency

One of the measurements for depth of outreach indicator is through a scale that covers small-medium, small-large, and medium-large enterprises. The other indicators were identifying loan portfolio, calculating instalment loan, and explaining the risk of company process transformation was also important (Widiarto and Emrouznejad, 2015). Meanwhile, target market explains the sizes of low end broad, low end high end, low end small business, broad-high end, broad-small business, and high-small business (Widiarto and Emrouznejad, 2015; Gutierrez-Goiria *et al.*, 2016).

Kar and Deb (2017), Roy (2017) in their studies explain that gross loan portfolio, operation scale, and risk have a significant relationship on financial efficiency in Micro Finance Institution. Kinda (2012) explains that the average loan size indicates for depth of outreach and is an important variable in the decision for finance sustainability in Micro Finance Institution.

5.2. Relationship between depth of outreach on social efficiency

According to Gutiérrez-Goiria *et al.* (2007; 2011), there is a loan process by the client Micro Finance Institution and there is a positive significant relationship between women support efficiency and prosperity efficiency. There is a relationship between social performance and finance, there is no relationship between company size profitability and company social performance. Hermes *et al.* (2009) in their research explain that social outreach has a negative influence on the social efficiency of Micro Finance Institution. The lower the average loan balance and the percentage of women borrower as the measurement for the depth of outreach, the impact will be less efficient. This research result is supported by Marr *et al.* (2012) on the variables of age, regulation status, loans per loan officer, and asset that have a significant influence on social performance, but the profit status does not have a significant influence. On the other hand, the legal status and target market as the deciding factor for efficiency, but age and scale do not have any influence (Gutierrez-Goiria *et al.*, 2016).

5.3. Relationship between breadth of outreach on financial efficiency

The result research of Arodi (2013) shows that the credit access of female client has a positive influence and strong correlation between social outreach and finance sustainability, and it implies on the total number of clients in a social mission and also profitability. Kinda (2012) explains that the number of borrowers as a measurement proxy of breadth of outreach can result in finance sustainability reparation within Micro Finance Institution. This variable indicates there is a positive relationship between the number of borrower and the Micro Finance Institution sustainability.

According to Schreiner (2001), the broad aspect is related to the number of participants serviced by the BMT. The high number of financing receiver shows that the contribution to the society is broader. It means that BMT can help more micro enterprise society and have broader role in empowering the society’s economy.

Another important thing is there are more members of the society who can receive the service of Islamic financing and it will lead to the freedom from the practice of usury (*riba*). The amount of asset also has an important role, since the higher the asset owned by a BMT, then the BMT's ability to provide financing to micro enterprises will also be higher. According to Widiarto and Emrouznejad (2015) the aspect of the number of borrowers is categorised as breadth of outreach, since in it there is an indicator that defines the number of individual or group, monitors the payment responsibility, and explains the portion of gross loan portfolio. Ali (2013) mentions that branch diversification, number of active borrowers, percentage of female client have an influence on finance sustainability. There is a positive correlation between the total asset, total number of active borrowers, borrower per staff, age, return on asset, operational self-efficiency with efficiency. Meanwhile, savings and cost per borrower support the scope and economic scale and indicates that Micro Finance Institution has always performed efficiency reparation.

5.4. Relationship between breadth of outreach on social efficiency

Gutiérrez-Goiria *et al.* (2007) in their research mention that there is a positive significant relationship between the efficiency of women support and the efficiency in prosperity. This result is in line with Heidmann and Nilsholm's (2012), in which thje high percentage of female borrower does not have a positive correlation on the high level of inefficiency.

5.5. Relationship between length of outreach on financial efficiency

Widiarto and Emrouznejad (2015) explain that the age of a company has an influence on sustainability Micro Finance Institution and can be measured through financial efficiency. Hossain and Khan (2016) yield a research in Bangladesh, where the age range of the Micro Finance Institutions is between 10 – 40 year and they, in average, have better performance in maintaining sustainability. This is related to how long LKM can provide financing to the society of micro business and the profitability can be a sign for them to be able to serve these micro businesses in the future. Surender Singh *et al.* (2013) in their research find there is a positive correlation between total asset, total number of active borrowers, borrower per staff, age, return on asset, self-efficiency operational with efficiency. Meanwhile, the debt to equity ratio has a negative correlation on efficiency. According to Khan and Sulaiman (2014), there is no one single way to achieve efficiency, but it depends on the scale, age, and the type. Meanwhile, the return on equity has a significant influence on financial efficiency.

5.6. Relationship between length of outreach on social efficiency

Marr *et al.* (2012) mentions that the variable of age, regulation status, loans per loan officer, and asset has a significant influence on social performance. Meanwhile, profit status does not have a significant influence. This research is in contrast with Gutierrez-Goiria *et al.* (2016), which finds that the variable of age and scale does not have enough influence on efficiency. Kar and Deb (2017) mentions that the return on equity has a significant influence on social efficiency.

5.7. Relationship between scope of outreach on financial efficiency

Oteng-Abayie (2011) explains that savings and cost per borrower support the scope and economic scale. Cost per borrower indicates that Micro Finance Institution has always performed efficiency reparation. Hossain and Khan (2016) mentions that deposit does not have an influence on finance sustainability. Mulyaningsih, Yani *et al.* (2016) find that based on the estimation of cost function, it is seen that the component of input consists of fund cost, output variable consists of financing, and the environment variable consists of capital variable significant on total cost. The value of high cost efficiency of the LKMS is predicted to be able to optimise the use of human resources, so it can minimize the cost.

5.8. Relationship between scope of outreach on social efficiency

The BMT activitiy in collecting and distributing *zakat*, *infaq*, and *shadaqah* is also a part of the social benefit from the aspects. The distribution to the poor can help to improve the life quality through productive activity, such as financing *qard al hasan* or consumptive financing and also to achieve social justice with reducing the centrality of richness only to those who are wealthy. Al Maududi (1985) mentions that *zakat* is the best form of social guarantee for the society. According to Mas'udi (1993), *zakat* is the most vital tool in achieving social justice.

5.9. Relationship between financial efficiency and social efficiency

Gutiérrez-Goiria *et al.* (2007; 2011) states that there is no significant positive correlation between social and financial efficiency. Gutierrez-Goiria *et al.* (2016) explained that the performance of microfinance institutions is measured in financial and social terms. There is a positive relationship between financial and social efficiency in this institution. This result is in line with the research by Arodi (2013) which provides the results of research that between social performance (reach) has a strong positive relationship to financial sustainability in microfinance institutions in the region of Nairobi, Kenya.

This study mentions that the focus of microfinance institutions is in providing credit to the poor who do not have access to banking. Microfinance institutions try to be financially sustainable, often seem to experience losses in practice. Some who have successfully made loans include: women, young people, disabled people and rural branches have received financial assistance through interest rates below market rates. Finally, a shift from microfinance institutions focused on financial sustainability and efficiency. Karanja (2014) states that the average loan size, number of borrowers, ROE, number of new borrowers have a significant positive effect on social outreach. There is a strong positive relationship between social reach and financial performance.

6. Conclusions

Sharia micro finance institutions' depth of outreach is measured through the indicators of average loan size, GDP percentage per capita, percentage of female clients, income and prosperity, sex, location, access to public facility, education, housing, ethnicity, and durability. Breadth of outreach concerns with the efforts to widen micro finance service for those who receive inadequate service by financial institutions. The indicators refer to the number of clients, the shifting percentage of served clients and either the types of products or programs, such as business loan, consumption loan, savings and insurance. Length of outreach consists of the timeframe for the loan or the product and service indicated by age of the institution, equity yield, profit margin (profit orientation) or asset returns. Scope of outreach indicates the number of the types of loan, savings, insurance and other offered product based on the product lines or the types of product including the number and type of offered product, difference in the number and type of offered savings product, and the type of the offered voluntary non-finance service.

The total of social outreach has a good influence either partially or simultaneously on the financial and social efficiencies of sharia micro finance institution. Empirically, there is a trade-off in the objectives of both financial and social efficiency in the management of sharia micro finance institutions and there is a correlational relationship between them. The mixed method research is an approach that combines qualitative and quantitative researches, this research belongs to the partially mixed sequential dominant status design.

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