ASSESSING PERFORMANCE AND INTERVENTION OF MICROFINANCE INSTITUTIONS: A CASE STUDY IN SUDAN

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Abstract

Purpose - Microfinance has obtained a universal avowal as an important tool for poverty alleviation. However, knowledge about the achievements of Microfinance objectives remains partial and challenged. The objective of this study is to develop a conceptual framework for assessing performance and intervention of MFIs in Sudan from three dimensions of measurement; the 3D measurements are outreach, sustainability, and Assessment of social impact as a direct MFIs intervention. The conceptual framework we developed is relatively new since it combines two different schools of thoughts; intended beneficiary school and intermediary school.

Design/methodology/approach - This study uses a case study of three MFIs in Sudan involving open-ended questioning.

Findings - The expected result is that microfinance programs in Sudan will have a positive social and political impact. Moreover it would provide a statistical proof of interdependence between sustainability and outreach.

Keywords: Microfinance Institutions, Impact Assessment, Sudan, Performance measures

1.0 Introduction

1.1 Research Background and Motivation

Microfinance has obtained a universal avowal as an important tool for poverty alleviation in many developing countries (Armendáriz & Morduch, 2005; Bakhtiari, 2011; Gibbons & Meehan, 2002; Johnson & Rogaly, 1997). Microfinance perceived as a vital dynamic mechanism towards attaining the millennium target of reducing poverty and hunger by 2015 (Fernando, 2004; Simanowitz & Walter, 2002). Ledgerwood (1999) defines microfinance as the provision of financial services to low-income clients including small traders, street vendors, small farmers, service providers (hairdressers, rickshaw drivers), artisans and small producers. A World Bank study has identified three objectives of MFIs that are very often cited (Webster, Riopelle, & Chidzero, 1996): to create employment and income opportunities through the creation and expansion of micro-enterprises, to increase the productivity and incomes of vulnerable groups, especially women and the poor, and to reduce rural families’ dependence on drought-prone crops through diversification of their income generating activities.

The establishment of MFIs that can achieve their primary challenging objectives of sustainability and outreach to the poor who are not served by the conventional financial institutions has been a prime component of the development Strategy of many developing countries. (Brau & Woller, 2004) mentioned that majority of MFIs are not
"sustainable," where sustainability is associated in microfinance literature with financial self-sufficiency. However, nearly all MFIs operate depending on subsidies and gifts from governments and donors to cover their costs (Morduch, 2000) reported a rough estimate that only 1 percent of MFIs are now financially self-sustainable and they would never increase over 5 percent. Microfinance was anticipated to be capable to wean themselves off subsidy from donors and to attain self-sufficiency as their repayment of loans was very good. But Morduch (1999) assert that the well revealed high rate of loan repayment in the microcredit industry has by some means unsuccessful to automatically convert the subsidy-dependence MFIs into self-sustaining institution. Morduch 2000 is also doubtful of the optimistic of microfinance being able to be financial self-sustainable and in same time to ensure depth of outreach and alleviation of poverty.

Another problem is outreach of financial services to the poor particularly in rural area. Microfinance still reaches only a fraction of the world’s poor (CHRISTEN Robert Peck, 2004; Robinson & NetLibrary, 2001). For example, only about 133 million people are estimated to be served by the MFIs, compared to the 900 million poor people in the Asia Pacific region alone (ADB, 2000a).

Other issue that this paper highlights is the IA of microfinance intervention. As per Hulme (2000) IAs assess the difference in the values of key variables between the outcomes on `agents' (individuals, enterprises, households, populations, etc.) which have experienced an intervention against the values of those variables that would have occurred had there been no intervention. IA as a chain is influenced by a mediating process (e.g. MFC economic characteristic) that influences both behavioral changes and the outcomes (as depicted in Figure 1). Assessing such complicated chain provides two choices about which link (or links) to focus on;

(a) To assess the impact on intended beneficiaries (individuals or households) by getting as far down the impact chain as is feasible. That is intended beneficiary school of thought which based ideas of conventional evaluation. However, this choice has drawbacks such as:

(i) Evaluating the effect of microfinance program (particularly in rural area) on poverty is very difficult because it is hardly ever clear what MFCs would have done in the absence of the microfinance program.

(ii) Performing cost-benefit analysis requires measuring both social cost and benefits of microfinance which is complicated. Benefit to a client from a loan may include the utility derived from financing wedding expenses, increasing consumption of durable goods, etc. Such benefits are unlikely to match benefits as defined by microfinance providers, which are usually related to poverty alleviation(Schrieder & Sharma, 1999).

(iii) There was no generally accepted mechanism to assess the impact that the MFIs have made on the borrowers. As a result, it is very difficult to compare the impacts of the MFIs against each other. (Nanayakkara, 2012)

(b) To measure the two key variables of microfinance operation: institutional outreach and institutional sustainability (Yaron, Benjamin, & Piprek, 1997). If both outreach and sustainability have been enhanced then the intervention is judged to have a beneficial impact as it has widened the financial market in a
sustainable fashion. But this intermediary school focuses purely on the beginning of the chain and in particular on changes in the MFI and its operations. Furthermore, Nanayakkara (2012) identified the following problems regarding sustainability and outreach:

(i) Subsidy Dependence Index (SDI) only measures the dependence on subsidies, and not any impact on the poverty level of the borrowers. For example, an MFI may have a zero or negative SDI indicating that it is not depending on any subsidy.

(ii) An MFI may function at lower efficiency, but can still attain the ultimate zero SDI by charging very high interest rates to its poor MFC.

(iii) Using only the ‘outreach’ (the number of customers) might not represent the real performance of an MFI relating to its customer base. The rational for this is first, a larger customer base point out that the MFI has perform effectively fine at some period in the past to enlarge its customer base. However, the current number may not reveal whether the number of customers are increasing or decreasing over the period of time for which the performance is analyzed.(Nanayakkara, 2012).

This study is believed to be significant in providing indicators and find solutions in order to improve the outreach to poor in rural area and achieve sustainability of MFIs by clearly indicating the performances of MFIs that is vital to first; the donors and/or Government by measuring the performance of efficient utilization of the significant funds injected into the microfinancing sector. Also the finding will contribute in improvement of the frameworks that monitor and control the MFIs. Second to MFIs, according to, Helms (2006) and the Consultative Group to Assist the Poor the lack of strong MFIs represents a major constraint on the further development of the microfinance industry(CGAP, 2006). Consequently performance measures are a means for managing MFIs and are a likely requirement for sustainability(Helms, 2006). This study entitles, what drives MFIs financial sustainability by providing insights for what needs to be monitored for sustainability. Also, the finding will contribute to MFIs by examining the relationship between firm performance and corporate governance in MFIs that will investigate the impact of governance mechanisms on MFIs’ dual missions of financial sustainability and providing banking services to micro-enterprises and low-income families. CSFI (2008) identifies governance as a major obstacle to MFI growth.

Furthermore, there is very low competition among the MFIs to attract customers. This is caused mainly by the very large demand for microfinancing services in developing countries compared to the supply. Lack of competition can affect the need for higher performance.

In other words, the concept of ‘performance evaluation’ is a very important issue to all stakeholders including MFCs.

1.2 Microfinance in Sudan

Microfinance is important and influential tool to combat poverty in many countries over the world. Thus, Sudanese banks entered the field of microfinance with the vision that it is the most proper tool to achieve their social role. In addition to commercial and specialized banks microfinance is provided through a wide range of social programs, national and international NGOs and social and charitable funds (CBOS, 2012).
Recent development on microfinance in Sudan reflected that Ali Osman, First Vice-President of Sudan has endorsed the Plan of Department of Poverty Reduction And Creation of job opportunities. Another recent development on microfinance in Sudan is the initial partnership deal between Bank of Khartoum (BoK) and Islamic Development Bank (IDB), to set up Irada Company for microfinance in which BoK offered over US $42 millions in microfinance projects and the deal is one of the major achievements in the framework of the partnership between IDB and BoK to support the small-scale projects ((IDB), 2012).

Khartoum, Feb. 22 (SUNA) - The recommendations of the Islamic Microfinance Forum, which organized by the Center of Studies of Islam and Contemporary World in collaboration with the International Info-Vision Center for Training in Malaysia, have called for establishment of specialized units and centers under umbrella of the Central Bank of Sudan. (Ltd., 2012).

Central Bank of Sudan (CBOS) oversees an institutionally diversified financial sector comprising 38 licensed banks, most of which are registered as commercial. Five additional banks are registered as specialized including three important microfinance providers: The Agricultural Bank of Sudan (ABS); the Savings and Social Development Bank (SSDB) and the Family Bank in Khartoum state (CBOS 2012).

Sudan (North Sudan) is situated in northeast Africa with an area 1,861,484 square kilometers and population stood at 34,206,710 million. Despite large endowments of natural resources, Sudan is an extremely poor country that has to deal with social conflict, civil war, and the July 2011 secession of South Sudan. (UNDP, 2012). According to ECA & CBS (2011-2012) task force8 , Sudan’s GDP growth declined from 5% in 2010 to 2.8% in 2011 due to the secession of South Sudan reducing the population by about 20% and oil revenue by 75%. Average inflation surged to 20% in 2011, up from 15% in 2010, owing to the rise in food prices and the depreciation of the Sudanese pound. ((AEO), 2012).

According to UNDP (2012), the incidence of poverty in North Sudan stood at 46.5%. The poverty gap ratio and the poverty severity index stood at 16.2% and 7.8% %, respectively. This signifies how deep and severe poverty is in North Sudan. About 44.8% of the population of North Sudan are consuming below food poverty line of 69 SDG per month (USD 14)9. Food poverty index is higher in rural (55%) than urban areas (28%). Employment-to-population rate stood at 31.06% and unemployment rate stood at 17%. Youth (15-24) unemployment rate stood at 25.4%.GDP – real growth rate is -0.2% (2011 est.) and GDP – per capita (PPP) is USD 3,000 (2011 est.)10 CBOS defines microfinance as financial services to poor people. Poor people are defined as people with an income not exceeding twice the minimum salary (currently SDG 500 per month equivalent to USD 200) and whose productive assets excluding land do not exceed a value of SDG 10,000 (USD 4,000). A former restriction excluding low-income wage-earners from the microfinance client was recently lifted. Micro-financing is restricted to a maximum of SDG 10,000 per contract (USD 4,000)11.

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8 The Economic Commission for Africa (ECA) initiated discussions with the United Nations Development Program-Khartoum and African Development Bank (AfDB) country office in Sudan to assist the Central Bureau of Statistics (CBS) to prepare separate historical macroeconomic data for Sudan. This work is still ongoing.  
9 Conversion rate : USD 1 = SDG 4.9  
10 Conversion rate: USD 1= SDG 2.5
1.3 Challenges of MFI in Sudan

In Sudan the sustainability of MFIs remains questionable due to the strong prevailing “charity” culture and the cap on profit margin applicable for banks. As constantly when subsidies are a condition for operating MFIs activities, the sustainability of such a supply of services is an issue, and can affect MFC’s reimbursement behavior negatively. Consequently, most stakeholders in Sudan understate the importance of sustainability in the provision of microfinance. Despite ambitious development plans, extensive work done on policy and a large amount of funds available, microfinance remains in its early stages and surprisingly little work under taken to evaluate their performance. Moreover there is a fear among interested parties in the industry that MFIs could not stay in the market to serve the poor without the immense support of government, donors and others (CBOS 2012). In addition, poor infrastructure precludes expanding of outreach.

2.0 Review of Theory and Past Literature

2.1 Theory

This paper attempts to review the framework of assessing the impacts of MF programs. According to Hulme (2000), the term IA is being substituted for evaluation with a greater focus on the outcomes of interventions, rather than inputs and outputs. Implicitly, IA is a method by which stakeholders search for more information about MFI effectiveness than is the one available from the routine accountability systems. IA is also of significance to subsidized MFIs in terms of meeting the eternally increasing accountability demands of their governments.

Hulme (2000) views IA as being “...as much an art as a science...” (a phrase lifted from Little, 1997, p. 2). The scientific improvements relate to improving standards of measurement, sampling and analytical technique. Improving the “art” of IA has at least three strands. One concerns making more systematic and informed judgments about the overall design of IAs in relation to their costs, specific objectives and contexts. The second is about what mixes of IA methods are most appropriate for any given study. The third relates to increasing our understanding of the ways in which the results of IA studies influence policymakers and microfinance institution (MFI) managers.

According to David Hulme (2000) the conceptual framework of IA has three main elements:

(a) a model of the impact chain that the study is to examine;
(b) the specification of the unit(s), or levels, at which impacts are assessed; and
(c) the specification of the types of impact that are to be assessed.

2.1.1 Models of impact chains that the study is to examine

IAs assess the difference in the values of key variables between the outcomes on “agents” (individuals, enterprises, households, populations, policymakers, etc.) which have experienced an intervention against the values of those variables that would have occurred had there been no intervention.

All changes are influenced by mediating processes (specific characteristics of the agent and of the economic, physical, social and political environment) that influence both behavioral changes and the outcomes. MFI provides
different services to a client, most commonly in the form of a loan. These services lead to the client modifying her/his microenterprise activities which in turn lead to increased or decreased microenterprise income. The change in microenterprise income causes changes in household income which in turn leads to greater or lesser household economic security. The modified level of household economic security leads to changes in the morbidity and mortality of household members, in educational and skill levels and in future economic and social opportunities. Ultimately, perhaps, these changes lead to modifications in social and political relations and structures. The complexity of such chains provides the assessor with a range of choices about which link (or links) to focus on. For microfinance, it is useful to distinguish between two main schools of thought with regard to which link(s) in the chain to focus on. For convenience, these are termed the intended beneficiary school and the intermediary school. The intended beneficiary school, building on the ideas of conventional evaluation, seeks to get as far down the impact chain as is feasible (in terms of budgets and techniques) and to assess the impact on intended beneficiaries (individuals or households). The intermediary school focuses purely on the beginning of the chain and in particular on changes in the MFI and its operations. Its roots are closely associated with the Ohio State University School on analyses of rural finance.

Generally, two key variables are focused on: institutional outreach and institutional sustainability (Yaron, et al., 1997). If both outreach and sustainability have been enhanced then the intervention is judged to have a beneficial impact as it has widened the financial market in a sustainable fashion.

Moreover, when MFIs provide a suitable services to the intended clientele in an efficient and effective manner are properly to have the most wanted impact of incomes and poverty alleviation. Consequently, measuring their performance based on these criteria provides a straightforwardly quantifiable alternative of the impact of MFIs in lieu of a full cost-benefit analysis. In order to carry out a cost-benefit analysis, both the social cost and social benefit of microfinance have to be measured. Measuring social cost should include the opportunity cost of forgoing alternative investments, such as in education, infrastructure, and health (Zeller & Meyer, 2002). Measuring social benefit is more complicated than measuring social cost. The reason is that the social benefits of microfinance include the benefits accrued to the clients of the microfinance provider, as well as the benefits to society as a whole. Regarding difficulty of measuring the social benefits accruing to the clients of MFIs, Schrieder & Sharma (1999) note that the benefit to a client from a loan may include the utility derived from financing wedding expenses, increasing consumption of durable goods, etc (Schrieder & Sharma, 1999). Such benefits are unlikely to match benefits as defined by microfinance providers, which are usually related to poverty alleviation, increasing productivity, or raising income levels. (Manos & Yaron, 2009).

2.1.2 Units of assessment

Following the design of the model of the impact chain, comes the choice of the unit(s) or levels of assessment. Main units of assessment are the household, enterprise, and the institutional within which agents operate. Rare studies have attempted to assess impact at an individual level (e.g., (Goetz & Gupta, 1996; Peace & Hulme, 1994). Currently some studies have attempted to assess impacts at a different number of levels, such as (Hulme & Mosley, 1996) they selected at household, microenterprise, institutional levels and USAIDÕs Assessing the Impact of Microenterprise (AIMS) Project. Through a household economic portfolio model (HEPM) the latter try to assess impacts at household, enterprise, individual and community levels in order to provide a complete picture of overall
impacts (Chen & Dunn, 1996). The disadvantages of this approach are being complicated, time consuming, high cost, and require high skills.

2.1.3 Types of impact
There are many variables that can be used to assess impacts on different units; economic indicators are the major for microfinance IAs particularly when measuring income changes. Other variables also are levels and patterns of expenditure, consumption and assets. Also the social indicators that became popular in the early 1980s (e.g., educational status, access to health services, nutritional levels, anthropometric measures and contraceptive use) have currently been introduced into the socio-political aspect in order to assess whether microfinance can support empowerment (Goetz & Sen Gupta, 1996; Schuler & Hashemi, 1994; Hashemi, Schuler & Riley, 1996).

2.2 Past Literature Review
This paper attempt to develop a conceptual framework to assess the impact of MFI intervention by suggesting three-dimensional framework for MFI performance assessment: outreach to the poor, financial sustainability, and the outcome of social impact as a result of microfinance intervention. Let us start with literature of social impact and then other performance measures.

2.2.1 Social Impact
It is generally accepted that IA in microfinance is a critical factor in development of microfinance and motivating innovation. It also made a significant contribution for understanding part of the complex interactions between microfinance interventions, livelihoods and different perspectives of poverty reduction. Social performance in microfinance reveals how effectively a MFI achieve its social objectives. According to CGAP (2009), conventional evaluation has focused on ending results and impact. However, impact (which reflects changes in MFC or community conditions as a direct result of microfinance programs) is just one component of social performance. Social performance covers the entire process by which impact is produced. Figure 2 below reveals the dimensions of Social Performance.

There are many studies that evidenced the success of microfinance in attaining their objectives since the mid 1990s (Hulme & Mosley, 1996; S. Khandker, 1996; Remenyi, 1991; Schuler, Hashemi, & Riley, 1997) (Amin, St Pierre, Ahmed, & Haq, 2001; S. R. Khandker, Samad, & Khan, 1998; Robinson, 2002; Robinson & NetLibrary, 2001; Rutherford, 1998). However, an affirmative impact of MFIs on the socio-economic welfare of the poor can only be maintained if the MFI can accomplish a good financial and outreach performance.

A number of studies on MFIs have emphasized on the assessment of their performance and sustainability by assessing their financial indicators (such as loan recovery rate and profitability) resulting self-sufficiency, outreach, and delivery mechanism (Chaves & Gonzalez-Vega, 1996; Woolcock, 1999; Yaron, 1994; Yaron, Benjamin, & Charitonenko, 1998; Yaron, et al., 1997). The study of Christen et al (1995), for example, assessed the performance (using outreach and financial sustainability criteria ) of some MFIs in Bangladesh, Bolivia, Costa Rica, the Dominican Republic, Indonesia, Kenya, Niger, and Senegal. Using consolidated financial data of each MFI, this
study emphasized on numerous performance indicators such as loan size, number of borrowers, operational self-
sufficiency, financial self-sufficiency, adjusted return on assets (ROA), and adjusted return on equity (ROE). The
findings of Christen et al recommend that the two keys to full self-sufficiency are efficient operations and
appropriate pricing policies. However, this study does not reveal the social impact of microfinance intervention - on
those financial performance indicators which our research is attempt to do.

Another study, performed by (Chaves & Gonzalez-Vega, 1996), disclose the success of MFIs in Indonesia as a
consequence of the organizational design. Their argument is that the design of an organization is crucial since it will
decide its performance and, as a result, the success or failure of the institution. Our study also will reveal creative
organizational design such as branchless banking, credit delivery systems that will contribute to MFIs success.
The third example is (Yaron, 1994) study that assessed the financial performance, incentives, modes of operation,
and policies, of four publicly funded MFIs in Asia – the Bank for Agriculture and Agricultural Cooperatives
(BAAC) in Thailand, the BKK and the BRI Unit Desa in Indonesia, and the Grameen Bank in Bangladesh – that are
alleged to be successful, to identify what factors contributed to their success such as modes of operation, economic,
social, and institutional factors. (Yaron, 1994) identifies four essential conditions for a MFI to turn out to be
sustainable. First, an MFI has to charge interest rates sufficient enough to cover unsubsidized costs to keep the value
of equity in real terms. Second, an MFI has to maintain a high rate of loan repayment. Third, an MFI has to provide
high interest rates to encourage saving deposit which in turn enhance significantly financing the loan portfolio.
Lastly, an MFI has to provide an efficient operation (lower cost) of loan delivery transaction which includes the
screening process, processing loans, and collecting repayments.

2.2.2 Outreach and Sustainability
Sustainability is defined as the ability to cover all expenses with revenue plus produce a surplus of revenue over
expenses to finance future growth (Ayayi & Sene, 2011, p. 304). As an elusive economic condition, sustainability
has not been achieved by most MFIs, and consequently subsidies are still needed. For example, poverty-focused lenders
such as the Grameen Bank would not be able to survive without subsidies (Morduch, 1999, p. 1571). In this
regard, (Armendáriz & Morduch, 2005, p. 18) say:

[. . .] the hope [. . .] is that microfinance programs will use the subsidies in their early start-up phases only, and, as
scale economies and experience drive costs down, programs will eventually be able to operate without subsidies.

Though, the microfinance is controlled by an institutionist model (Morduch, 2000; Woller, Dunford, & Woodworth,
1999) affirmed that an MFI should be capable to pay off all its operating and financing costs from microfinance
program revenues. Its roots are closely associated with the Ohio State University School on analyses of rural
finance. This analysis of the unsuccessful rural credit agencies done by several LDC governments during the 1960s
and 1970s analyzed the root cause of failure to be the “lack of institutional viability” (Gonzalez-Vega, 1994). This
analysis led to two primary conclusions: (1) institutional sustainability was crucial for MFIs success (2) financial
self-sufficiency was essential for institutional sustainability.

Source: C GAP Appraisal Guide 1994

Conversely, Welfarists opposed institutionists over the dilemma of sustainability. Welfarists argument is that MFIs
can attain sustainability with no financial self sufficiency (Morduch, 2000; Woller, et al., 1999) their argument
donors can be considered as social investors in sense that donations can be as a form of equity. Socially investors
ready to obtain a lesser expected financial return because they also receive the inherent return of not investing in firms that they find repulsive.

Morduch (2000) describe the argument between institutionists and welfarists as the “microfinance schism.” That caused mainly by the implication of financial self-sufficiency on depth of outreach. Consequently, MFIs would not provide a sufficient depth of outreach (Morduch, 2000).

3.0 Conceptual framework and Hypotheses

3.1 Conceptual framework

This conceptual paper reviews the methodological options for assessing the impacts of microfinance programs and the broader literature on it. As stated in Introduction above, assessment of microfinance programs remains an important field for stakeholders and researchers and the objective of IA is to provide what is being achieved by MFIs (proving impacts) and to improve effectiveness and efficiency of MFI activities (improving interventions).

Based on the theories and literature covered in this paper, we propose a framework that will implement the thought of first; intermediary school which will assess the two primary criteria of MFI performance; outreach and self-sustainability. Second, the intended beneficiary school partially by assessing social impact-outcome (change of income from productions) as direct result of microfinance intervention which will benefit MFC and the society as whole. The argument for this choice is that, evaluating the effect of microfinance program (particularly in rural area) on poverty is very difficult because it is hardly ever clear what MFCs would have done in the absence of the microfinance program.

The main difference distinguish this study is by hybrid the two schools in one conceptual framework. That measuring full performance of MFI outreach and sustainability (intermediately school) and measuring partial performance of social impact of outcome of microfinance intervention (Intended beneficiary school) with lower cost since measuring social impact is extremely expensive according to CGAP 2009. Very few study have focus on the social impact which attributable to microfinance intervention due to the difficulty of obtaining reliable data of microfinance intervention and its related direct social impact particularly for developing countries (such as Sudan) where microfinance is at the infancy stage. Some of these issues have already been debated in the literature, but we augment the debate by providing different views and new insight. The conceptual framework we used is relatively new since it combines two different schools of thoughts that is intended beneficiary school (partially) and intermediary school (fully).

Our main point here is that this conceptual framework will evaluate the overall performance of MFIs and their impact on poverty alleviation from three assessment dimensions (3D). One dimension, outreach, is a hybrid index that measures the financial services (the output of the intervention) that the MFI managed to provide, given the objectives it was founded to achieve and for which it received support. Second dimension, is the self-sustainability or SDI, a composite index that measures the extent to which the MFI is independent of subsidies. The outreach-SDI framework was generally accepted and adopted by many researchers. Examples include (Gonzalez-Vega, Schreiner, Meyer, Rodriguez, & Navajas, 1996) Schreiner, Meyer, Rodriguez, and Navajas (1996), and (Lariviere & Martin, 1998) who claim that (Yaron, 1992, 1994) suggested two fundamental criteria to evaluate the impact of microfinance interventions: sustainability and outreach. Third dimension is the assessment of social impact-outcome of microfinance intervention. That will use the economic indicator of income changes as a result of crops production which is a direct result of microfinance intervention. This indicators represents the impact that match the benefits as
defined by microfinance providers; raising income level, moreover, it measures the microfinance benefit to society as whole in aspect of food security and economic growth.

This study will choose MFIs as a unit of assessment for the reason of availability of data and analytical tools such as profitability, SDI, and transaction cost among others. This research will assess the performance and intervention of microfinance program by selecting three MFIs in Sudan. These three MFIs (such as ABS)\(^\text{12}\) provide financial services (loans) mainly for agricultural activities and have their means and capabilities for identifying farmer’s production (yield) as a result of the direct financing. This will facilitate assessing social impact of MFIs intervention at a lower cost.

Based on the two important criteria of self-sustainability and the outreach, several performance assessing techniques have been developed since 1990s such as (Ledgerwood, 1999) and (R. R.-. CGAP, 2009) among others. In choosing an assessment technique, consideration must be given to some related factors, such as the geographical context (a proper benchmarks in Asia are not necessarily suitable for Africa), the age of the institutions (young MFIs usually incur higher costs and should not be compared to mature MFIs), and the varying lending approaches. Consequently this study will choose CGAP 2009 in assessing the 3 MFIs in Sudan.

According to CGAP (2009), these are the basic tools to measure performance in a few critical areas at a minimum, measure in five areas which we will implement:

1. Outreach - breadth
   - Number of active clients or accounts

2. Outreach - depth
   - Average outstanding balance per client or account

3. Loan repayment
   - Portfolio at risk (PAR) or
   - Loans at risk (LAR) or
   - Current recovery rate (CRR) together with Annual loan loss rate (ALR)

4. Financial sustainability - profitability
   - For nonsubsidized institutions:
     - Return on assets (ROA) or
   - For subsidized institutions:
     - Return on equity (ROE)
     - Financial self-sufficiency (FSS) or
     - Adjusted return on assets (AROA) or
     - Subsidy dependence index (SDI)

\(^{12}\) Agriculture Bank of Sudan (ABS): established 1958 and have more than 92 branches mostly in rural areas with objective mainly to provide financial services to framers. This bank specializing in MF programs and have huge MF department to provide MF services. For 2010-2011 they provided fund of SDG 545 million (USD…) for MF programs.
5. Efficiency

Operating expense ratio (OER) or
Cost per client

Moreover, this study also will investigate how lending methodology used by MFIs will impact financial and operational performance as well as outreach. Lending methodology refers to the way loans are given. The categories used are individual loans, group loans, and village banks, which are larger groups of approximately 20 members.

3.2 Hypothesis

The testable research hypotheses are as follows:

H₁: MFIs operating in Sudan have good financial, operational sustainability and outreach performances.

For this hypothesis, the following objectives are proposed:

(i) Evaluate the overall performance of MFIs in Sudan relating to sustainability and outreach

(ii) Review the regulations, styles and approach of operation, motivation, and financial performance of the best practice microfinance Institutions from outreach perspective

(iii) Assess the role of institutional environment in which the microfinance institutions operate. For instance, the connection and coordination between MFIs in Sudan and others have influence on microfinance.

(iv) Investigate the impact of governance mechanisms on MFIs’ dual missions of financial sustainability and providing banking services to micro-enterprises and low-income families.

H₂: there is a social impact attributable to microfinance intervention in Sudan

In this hypothesis it is proposed that the socio-economical (outcome) of microfinance program in Sudan as a direct intervention is assessed.

4.0 Proposed Methodology and Research Design

MFIs are complex phenomenon that has economic and socio-cultural perspectives (Chaves & Gonzalez-Vega, 1996; DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Oliver, 1991; Rhyne & Otero, 1992). In order to cope up with such a complex phenomenon and to assess the performance and sustainability of MFIs and the affecting factors, our study attempt to use a mixed approaches and tools of analysis. Particularly, this study uses an embedded case study design

According to Hulme (2000) the most common methods used in IA are sample surveys, rapid appraisal, participant observation, case studies and participatory learning and action. This study will use a case study of three MFIs in
Sudan which will provide detailed studies of a specific MFI involving open-ended questioning and the preparation of histories. This choice is made based on conditions under which the method is and is not appropriate based on the concept of attribution and fungibility. That explain, at the heart of IA is the attribution of specific effects (i.e. impacts) to specific causes (i.e. interventions) (Hulme, 2000)

Previous studies such as (Chaves & Gonzalez-Vega, 1996; Yaron, 1994; Yaron, et al., 1998) Christen et al (1995) – use a multiple case study approach that analyses several MFIs. Our study, accordingly, will use three MFIs in Sudan to assess their performance and partial social impact. At the end of 2011 there are nine Non-governmental MFIs and three commercial banking specialized in MFIs in Sudan. All of the three proposed MFIs would be the largest and with established branches in both urban and rural. Data will be collected for the period 2010 & 2011. A strong case study should use as many sources of evidence as possible. In our study, the three sources of evidence suggested by (Yin, 1994)Yin (2003) will be used. These are: (1) Documentation; (2) Interviews; and (3) Archival records from the three MFIs.

The first phase is data collection, of which we will reviewed publicly available information relate to the three MFIs and the MFIs in general from public and some of their private records. The second phase will make an interview with the senior management chief finance officer (CFO) and / or the CEO each organizational interview will take probably between two to three hours. Also we will review (after permission) the main reports prepared by the finance departments and all necessary transactions in order to achieve the objective of this study. As recommended, an interview guide will be used to minimize interviewer bias(Lillis, 1999).

In this study, construct validity will be addressed by cross-examine the same questions through different sources of evidence that will include direct interviews, archival sources, web sites of MFIs and financial statements. Inconsistencies, if any, will be resolved by making contact with the multiple sources, and draft findings at each MFI will be reviewed with their CEO and /or CFO. Internal validity will be addressed through pattern matching, which focus on how and why the pattern of observation about each case was consistent or inconsistent with the expectations that the measures would be used contribute to financial sustainability. External validity will be addressed through replication logic. This analysis focused on cross case analysis and comparison of the results. Finally, reliability will be addressed by making of face-to-face interviews, the use of a pre-determined questions corroborate documentation.

A qualitative analytical procedure will be applied to analyze and interpret the data. According to Lillis (1999), the analysis of any qualitative data includes the process of reduction, classification, and interpretation. Data to be collected will be coded and linked to the themes that will be investigated. This method will reduce the possible bias and provide an audit trail, as a result will enable the user to trace the source of the conclusions(Lillis, 1999).

This single case study will offer descriptive and exploratory details and will show operation and conditions of the MFIs in Sudan. Based on this information, it then explores these cases with a vision for identifying and clarifying key strategic issues, and attempts to explain why some observed outcomes of the MFIs have occurred (Scapens, 1990) Yin 2003).
4.1 Selecting the case study

A case study is an in-depth study of a particular research problem rather than a sweeping statistical survey. It is often used to narrow down a very broad field of research into one or a few easily researchable examples. The case study research design is also useful for testing whether a specific theory and model actually applies to phenomena in the real world. It is a useful design when not much is known about a phenomenon.

The following Sudanese MFIs are selected as a case study since they can directly exhibit and address key issues that have been well identified and discussed in the subject area under study. (Scapens, 1990), they are;

1. Agricultural Bank of Sudan: is a commercial bank specializing in microfinance with 92 branches mostly at rural areas.
2. Gezira Microfinance Institution
3. Youth Microfinance Institution

4.2 Methods and tool of analysis

This study will apply multiple methods of analysis in addressing the problems of study by using both quantitative and qualitative methods. Quantitative analysis uses a statistical analysis and Qualitative analysis uses SWOT analysis.

The data will be analyzed using the mean significant differences and significant relationship between independent and dependent variables. It will involve statistical methods such as t-test, one-way ANOVA, coefficient Cronbach’s alpha and regression analysis to draw the results.

5.0 Conclusion

The recent rise of microfinance programs as a strategy for poverty alleviation and economic growth makes IA an important aspect for MFIs, policy makers and particularly for donors. Thus this study developed a conceptual framework for assessing performance and intervention of MFIs in Sudan from three dimensions of measurement (3D measurement). First is to evaluate the overall performance of MFIs from the two primary criteria of outreach (first dimension) and sustainability (second dimension). Second is to assess outcome (social impact) as a direct MFIs intervention (third dimension). With consideration to difficulty of obtaining reliable data of microfinance intervention and its related direct social impact particularly since microfinance in Sudan is at the infancy stage. Some of these issues have already been debated in the literature, but we augment the debate by providing different views and new insight. The conceptual framework we developed is relatively new since it combines two different schools of thoughts that intended beneficiary school and intermediary school.

The expected results regarding MFIs in Sudan will cover three perspectives; first perspective is the microfinance intervention that will have a strong and positive social and political impact. Since there will be a direct effect of microfinance intervention (loans) on the income changes of individuals which will lead to economic security change of individual and society as whole. The second perspective is regarding sustainability and outreach of which our expected results will show statistical proof of interdependence between sustainability and outreach. Furthermore
MFIs information will reveal evidence that financial sustainability will have an affirmative effect on the depth of outreach, and from other hand, growth in the depth of outreach will enhance the financial performance of an MFI. This study will show that outreach and financial sustainability complement each other positively. However, for-profit MFIs will have a higher probability of attaining financial self-sufficiency and the nonprofit MFIs have better depth of outreach. The third perspective, this study will reveal that internal environment such as governance, management, and credit mechanisms will a vital role in achieving objectives of MFIs in Sudan. In addition, external environment such as regulatory and political environment and socio-economic conditions also influence their performance and sustainability.

Figure 1: Impact Assessment Chain
Figure 2: Dimensions of Social Performance

- **Intent & Design**: What is the mission of the institution?
- **Internal Systems & Activities**: What activities will the institution undertake to achieve its social mission?
- **Output**: Does the institution serve poor and very poor people?
- **Outcome**: Have clients experienced social and economic improvements?
- **Impact**: Can these improvements be attributed to institutional activities?
References


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