2016

Formalization Effects of Microfinance in Sub-Saharan Africa: Synthesizing Evidence of Potential Transitions from the Informal to Formal Economy

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Formalization Effects of Microfinance in Sub-Saharan Africa:
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submitted in partial fulfillment of the requirement for the degree

of

Bachelors of the Arts in Economics

at

Skidmore College

by

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Abstract:

Sub-Saharan Africa is the only region of the world where the number of people living in absolute poverty continues to grow. The region is characterized as having a large informal economy, within which exist a number of negative social and economic circumstances hindering economic growth and development. Recently, microfinance has been suggested as an innovative approach towards poverty alleviation and increasing standards of living. Through comprehensive synthesis of existing literature, in combination with an examination of the relationships between aspects of formal economies, this paper provides evidence that microfinance institutions can serve as an avenue towards formalization. However, incentivization, supporting programs, appropriate regulations, monitoring, and cultural considerations are all necessary in ensuring that microfinance institutions facilitate efficient progression from informal to formal economies. In order to further support the findings of this paper, a potential empirical model is proposed, although data sets for pertinent variables are not yet comprehensive enough to carry-out such a regression. This paper identifies gaps and biases in existing data, and highlights the necessary next steps for research on microfinance and formalization to proceed.

Section I: Introduction

Sub-Saharan Africa is the only region of the world where the number of people living in absolute poverty continues to grow. The region is also characterized by high unemployment, gender inequality, and unsafe working conditions - all which contribute to an environment in which the informal sector of the economy thrives (Mondal 2009) (ILO 2014,). According to the African Development Bank, the informal sector contributes approximately 55% of SSA's GDP and 80% of the labor force **(**Recognizing Africa's Informal Sector 2014). Most people do not enter the informal economy by choice, but as a necessity for survival and means to access to basic income generating activities (ILO 2014). The term "informal economy" refers to "all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements" (ILO 2014).

Although the informal sector of the economy plays a significant role in income generation in developing countries (due to the relative ease of entry, low requirement for education, skills, technology, and capital) there are substantial negative impacts of such a large informal sector, which have far-reaching implications for the region's ability to develop. Most economic units in the informal economy do not have secure property rights, which lessens their accessibility to both capital and credit (ILO 2014). Members of the informal economy also have limited access to public infrastructure and markets, as well as the legal and judicial systems to enforce contracts. Informality may also inhibit investment in bigger businesses and impede trade, as informal firms often lack the necessary size to exploit economies of scale fully (ILO 2014). Additionally, unregistered and unregulated economic units often don't pay taxes, benefits, or entitlements to workers, which not only prevents the protection of workers, but also means that they may compete unfairly with formal enterprises (ILO 2014).

The informal sector of the economy is in contrast with the formal economy, which is defined as an organized system of employment with clear written rules of recruitment, agreement, and job responsibilities, as well as standardized relationships between the employer and the employee, fixed work hours, and set payment amounts and schedules. The formal economy is also categorized as generally having decent work environments, entitlements to a variety of social protection benefits, as well as providing workers with access to organized institutions where grievances may be addressed (Fundsforngos.org).

A 2014 report by the International Labor Office (ILO) describes how employment within the informal sectors prevents households and economic units hindered by the informal economy from increasing productivity and eventually escaping poverty. The report emphasizes that inclusive development is not possible unless rights and opportunities are extended to workers in the informal economy, as well as the importance to facilitate transitions from the informal economy to the formal economy in order to promote poverty reduction. (ILO 2014)

Recently, microfinance has been suggested as an innovative approach to promoting formalization (ILO 2014). Microfinance Institutions (MFIs) are defined as "financial institutions similar to commercial banks with the exception that lending and borrowing are conducted with the sole objective of making credit accessible to the poor who cannot obtain a loan from a conventional financial institute because of the inability to provide a collateral" (Mondal 2009, pg. 1). MFIs aim to improve standards of living through providing those in poverty with access to additional capital without collateral. In most countries, microfinance clients are usually self-employed and low-income entrepreneurs in both urban and rural areas - often including traders, street vendors, small farmers, service providers, artisans, and small producers (Mondal 2009).

Although microfinance is becoming increasingly part of the dialogue and strategy regarding poverty alleviation in developing nations, comprehensive research on its role in transitioning the informal to the formal economy is lacking. **The purpose of this paper is to investigate whether microfinance serves as an effective link between the financially excluded and economically vulnerable populations in SSA, with formal banking and higher levels of social and economic protection.** In simpler terms, I aim to examine whether microfinance is effective in promoting formalization of informal economies in the SSA region. In order to investigate the relationship between the use of MFIs and the formality of SSA economies, this paper will provide descriptive analysis aiming to answer the following questions: 1) What does existing literature and theory predict as economic and social outcomes of increased use of microfinance, 2) Do these predictions align with characteristics of the formal economy, rather than the informal economy? 3) If the predicted benefits of microfinance are associated with the formal economy, how does microfinance facilitate formalization?

This paper will also discuss the status and implications of data availability for indicators related to the above questions, as well as present a potential empirical analysis method that could be used to test the descriptive analysis used in this paper, if pertinent data were available.

Section II: A Review of Key Literature

Microfinance is increasingly becoming a key part of the dialogue regarding global development and poverty alleviation strategies. Economic and social scholars, as well as established NGOs have identified MFIs as a potentially substantial progression in linking the informal and formal economies, as well as an important step towards economic growth and higher standards of living in SSA. The following section reviews key literature regarding both the nature of dynamics between the informal and formal economies, as well as the role of microfinance in the region, specifically examining potential benefits, concerns, complications, and approaches.

The United Nations has done extensive research regarding the use of microfinance as a poverty alleviation and development tool, specifically in SSA. The organization has argued that MFIs are not only effective in addressing material poverty, deprivation of physical goods and services, and the income to attain them, but if properly guided can extend benefits to a community by addressing the psychological and social effects that prevent individuals from prospering. The United Nations' 2013 report on microfinance in Africa emphasizes the need for urgent action in providing access to formal financial institutions for a greater portion of the population. The report goes on to cite consensus among development experts that microfinance can economically empower individuals and enable them to contribute to and benefit from economic development in a variety of ways (UN 2013).

In another UN report, the organization also states "microfinance has the potential of formalizing the informal sector, empowering micro-entrepreneurs to participation and benefit from the formal economy" (UN 2013). The report cites that the economic performance of SSA over the past three decades has been tightly correlated with levels of savings and investment, and that the relatively slow economic growth in the region has been linked to low levels of capital accumulation. Underscoring the importance of promoting private savings in the region is critical, the report cites evidence from South East Asian countries - which show that sustaining high economic growth rates is directly dependent on attaining increased levels of capital accumulation, as well filling an investment savings gap that would decrease the region's dependence on foreign aid. The UN states, "When properly harnessed and supported, microfinance can scale-up beyond the micro-level as a sustainable part of the process of economic empowerment by which the poor can lift themselves from poverty" (UN 2013, pg. 4).

The UN underscores that though microfinance is just one tool in the approach to poverty eradication, as it becomes more widely accepted and moves into the mainstream, “the supply of services to the poor may likewise increase, improving efficiency and outreach, while lowering costs. This, in turn, can have a multiplier effect on people's standard of living” (UN 2013, pg.5). The UN argues that MFIs have the potential to transcend micro-level benefits to macro-level solutions to poverty eradication. In order for microfinance to reach its potential in SSA, the UN outlines four key principles that would allow MFIs to become culturally and institutional sustainable within the diverse societies of the region:

1. Pool together people's resources through group formation and networking
2. Prioritize local knowledge and participatory planning, relying on mutual trust and peer pressure to ensure participation and repayment
3. Reinforce microfinance to empower the African private sector
4. Strive for efficiency through targeting the poorest of the poor, mobilizing savings, charging interest rates that cover operational costs, target women, utilize pre-existing support organizations, avoid external dependency, among others

The UN continues in arguing that MFIs have the potential to provide training in financial management, legal rights, business management, as well as other services, and that under the collective organization framework, they can empower individuals and groups to bargain for higher wages, better work conditions, health services, child care, and common formal of insurance to protect their lives and livelihoods. The report highlights that MFI clients, especially women, can be empowered to reach leadership roles, and voice their opinions and desires – not only in the work place, but also domestically. (“Microfinance in Africa: Combining the Best Practices of Traditional and Modern Microfinance Approaches towards Poverty Eradication”)

The UN’s research on microfinance is relevant to my paper in that it highlights the potential for MFIs to not only promote capital accumulation and poverty alleviation, but also may provide opportunities to increase development aspects for informal wage workers, which indicate formalization – such as increased social protection benefits, and empowerment and ability to negotiation employer relationships and contracts. Additionally, the UN highlights the importance of connecting microfinance with the private sectors and utilizing support organizations – which supporting literature argues is key in the linkage between the informal and formal economies (UN 2013).

Economic scholar Wali Mondal's paper *Poverty Alleviation And Microcredit In Sub-Saharan Africa* (2009), analyzes the prevalence of extreme poverty in SSA in respect to socio-economic conditions and infrastructure existing within the region, specifically the growth of microcredit and microentrepreneurship. The paper examines the growth of microcredit using primary data of 297 microfinance institutions within 34 countries throughout SSA, and concludes that the expansion and increased use of MFIs has reduced incidence of extreme poverty of their clients, and promoted the formation of a microentrepreneur class. Mondal also argues that through the expansion and increased use of MFIs comes the opportunity for growth in the labor markets and levels of savings among borrowers. Mondal's research implies that there is potential for the expansion and growth of MFIs and microentrepreneurship in at least 13 countries in SSA, but asserts that in order for microfinance to be successful in the region, macroeconomic policies relating to fiscal policy, public sector governance, monetary policy, transparency in monetary and financial institutions, and trade regime, must be stepped up significantly. The paper argues that there is currently insufficient government stability and empowerment of private-sector producers, and though the growth and expansions of MFIs may improve these factors, some degree of macroeconomic reform is key to the success of microcredit and MFIs in sub-Saharan Africa (Mondal, 2009).

Mondal's paper is significant to my research in that it identifies that the potential for the expansion and growth of microfinance, but also that there must be accompanying policies and regulations in order for the benefits to be realized. My paper views MFIs as a link between the informal and formal economies, and I argue that in working as an avenue towards integration, such institutions promote communications between the sectors, which may in turn allow for more meaningful policies and regulations (Mondal, 2009).

Vice-Chancellor of the University of Ghana and economic scholar Ernest Aryeetey (2008) focuses on MFIs as an avenue towards financial inclusion and formalization through the linking of the informal and formal economic sectors. In his paper *From Informal Finance to Formal Finance in Sub-Saharan Africa: Lessons from Linkage Efforts*, Aryeetey introduces his research by stating that most African economies have both informal and formal sectors, and that the operators within these sectors have very little contact with one another and that their clients often don't overlap. He discusses that MFI organizations have been increasingly presented as the best alternative to ensuring access to financial services for small borrowers, and states that in recent development strategies there has been a focus on encouraging linkage between the informal and formal financial markets as a possible solution to this problem, with microfinance seen as a step in the progression of the informal sector. Aryeetey argues that the 'transformation' of the informal financial sector can take place if it is driven by a need to increase access to the resources of the formal financial sectors, and that this drive will first have to come from increased and expanded linkages in the two sectors. Like other literature on the subject, Aryeetey also discuses the need for policy reform and regulation to accompany MFI growth in sub-Saharan Africa (Aryeetey, 2008).

The first section of Aryeetey's paper gives an overview of the financial system that exists in sub-Saharan African economies. Aryeetey categorizes MFIs as semi-formal institutions, meaning that they are legally registered but not licensed as financial institutions by the central bank, and that they have principal clients of micro enterprises and the entrepreneurial poor. Aryeetey presents a case study of expansion of microfinance use in Ghana, where clients for deposits mobilized and loans provided grew 22% from 2001-06, and deposits and loans 20-30% in real terms (Aryeetey, 2008).

Aryeetey grounds his analysis of MFIs as a linkage between the informal and formal economies in existing literature on the dual-nature of economic sectors, which has been explained through modern economic theory as a result of information asymmetry in financial markets and lack of regulation of credit markets, and which has created a mismatch of resources and abilities between form and informal lenders. Aryeetey identifies three main practices that have previously been suggested in order to link the two sectors:

1) adding a degree of flexibility and informality to formal institutions
2) strengthening the structure and performance of informal market operations
3) developing linkages between the formal and informal financial sectors.

Aryeetey highlights the third option as most practical. He emphasizes efforts to link and integrate formal and informal finance can be useful for efficiency of the finance system, but don't necessarily aim to get rid of the informal sector all together, as informal activities remain relevant until there are major socio-economic shifts within the population. (Aryeetey, 2008)

Aryeetey continues by evaluating the feasibility of financial linkages between sectors in Africa, stating that although microfinance has been successful in enabling small businesses and individual entrepreneurs to get started, access to capital for both MFIs and clients is still a key obstacle. Aryeetey also cites unit costs of offering such services as a continuing impediment to the transition process, though he argues technical innovations (such as post office banking and mobile phone banking) may offer solutions to this problem in the future. In regards to making the financial banking system more inclusive, Aryeetey cites that some mainstream banks have chosen to link up with MFIs, while others have created MFI subsidiaries (ex: Benin and Chad by Financial Bank, Kingdom Bank in Zimbabwe). Like other scholars discussed in this paper, Aryeetey underscores the importance of integration of the informal and formal sectors incentivization and regulation (Aryeetey, 2008).

Relevant to the formalization section of my paper is researchers' Pais and Sarma (2008) work on the relationship between financial inclusion and development. In their paper *Financial Inclusion and Development: A Cross Country Analysis*, the authors aim to identify the factors of development that are significantly associated with financial inclusion. The study provides methods of quantitative analysis in examining financial inclusion and use of the formal banking sector (an indicator of formality), with various aspects of development (Pais & Sarma, 2008).

Pais and Sarma use empirical cross-country analysis of the relationship, employing the use of the index of financial inclusion - which is a multidimensional index developed by Sarma that uses factors such as banking penetration, availability of banking services, and usage of the banking system, to measure the level of inclusiveness in the financial sector of a country. The variables for financial inclusion that were examined include accessibility, availability, and usage. The authors measured accessibility by the penetration of the banking system proxied by the number of bank A/C per 1000 population. Availability was measured by the number of bank branches and number of ATMs per 100,000 people. The proxy used for the usage dimension was the volume of credit plus deposit relative to the GDP. A formula was used to calculate a dimension index for each dimension, and each dimension was then given a weight, and then plugged into another formula to calculate the overall index of financial inclusion (IFI). The authors then compared IFI with human development index (HDI), which concluded that in general, countries having high level of human development are also the countries with a relatively high level of financial inclusion (Pais & Sarma, 2008).

Pais and Sarma carry out regressions of IFI on three different sets of variables: the first is a regression of the IFI on a set of socio-economic variables such as income, employment, inequality, literacy and so on, the second regression attempts to capture the role of physical infrastructure, and the third regression attempts to see the effect of banking sector variables such as soundness indicators, ownership pattern and prevailing rate of interest on financial inclusion. The data for the regressions were obtained from the World Development Indicators (WDI) (Pais & Sarma, 2008).

The study concludes that levels of human development, income, and financial inclusion in a country are closely positively correlated, though a few exceptions exist. Additionally, they conclude that equality, literacy, urbanization, and physical infrastructure for connectivity and information (indicated by roads network, telephone and internet usage) also show significant correlations with financial inclusion. Furthermore, the paper demonstrates that banking sector variables such as, non-performing assets (NPA) and capital adequacy ratio (CAR) are negatively correlated with levels of financial inclusion. Foreign ownership of banks was also found to be negatively associated, while government ownership and interest rate both did not seem to have any significant association with financial inclusion (Pais & Sarma, 2008).

Pais and Sarma highlight an inclusive financial system as significant in reducing the growth of informal sources of credit, which they explain are often exploitative. The paper also recognizes that the informal sector/economy forms a significant share of employment in several less developed countries they analyzed. Pais and Sarma suggest that formal sector employment could imply participation in the formal financial system though receiving wages and salaries routed through the formal banking system, and that formal employment implies inclusion in employment related social security system, benefits of which are availed through the formal banking system. The paper highlights that the proportion of formal sector employment would be an important indicator of the level of financial inclusion, but they did not cover this - citing the lacking of reliable cross-country data on the proportion of formal sector workers (Pais & Sarma, 2008).

Pais and Sarma's research is relevant to my paper in that it highlights the positive correlations between indicators of development with that of the increase in financial inclusion, of which MFIs promote by providing banking services to those otherwise unreached by the formal banking sector. In their paper, Pais and Sarma cite that highly capitalized banking system tend to be less inclusive, and that alternative financial institutions, such as MFIs, have been implemented to reach those who have been financially excluded. They highlight the benefits of a more inclusive financial system, stating that it "…enhances efficiency and welfare by providing avenues for secure and safe saving practices and by facilitating a whole range of efficient financial services (including access to credit" (Pais & Sarma, 2008). As Pais and Sarma illustrate, such avenues for better saving practices create a more inclusive banking system, which in turn reduces the growth of informal sources of credit – thus promoting formalization within the banking sector (Pais & Sarma, 2008).

In her research for the United Nations Department of Economic and Social Affairs, scholar Martha Chen (2007) examines the relationship between the informal and formal sectors of the economy with the formal regulatory environment. The paper distinguishes between the formal economy, (which comprises of regulated economic units and protected workers) and the formal regulatory environment (which comprises of government policies, laws and regulations). The paper asserts that the previously widespread assumption that the informal sector is comprised of unregistered and unregulated enterprises whose owner operators chose to avoid registration, and thereby taxation, is often incorrect. She argues that enterprises may exist in the informal economy for a number of involuntary reasons, such as a regulatory environment that is too punitive, too cumbersome, or simply non-existent. Also, Chen cites that most informal enterprise operators would be willing to pay registration fess and taxes if they were to receive the benefits of formality enjoyed be formal enterprises (Chen, 2007).

Chen also highlights that in evaluating the informal economy, it is important to focus not only on informal enterprises, but also employment relationships that are not legally regulated or protected. The paper categorizes informal employment by the nature of employment relationships, all of which tend not to be protected by law or collective bargaining arrangements:

1) Disguised: the relationship is deliberately disguised to appear legal
2) Ambiguous: the relationship is objectively ambiguous so there is doubt whether an employment relationship even exists
3) Not clearly defined: the relationship clearly exists, but it is unclear who the employer is, what right the worker has, and who is responsible for securing these rights

Chen argues that employers engage in these employer relationships as a means to avoiding their formal obligations as employers, which suggests that informal employment is usually not voluntary for informal wage workers (Chen, 2007).

In discussion of the formal regulatory environment's relationship with the informal economy, Chen highlights three main concerns, including over-regulation, deregulation, and lack of regulation. Over-regulation can create barriers and costs not only to operating formally, but also to entering the market informally at all. Deregulation of labor markets is associated with the rise of informalization or ‘flexible’ labor markets, which labor advocates have argued need to be reversed in order to protect informal wage workers from economic risks and uncertainty associate with flexibility and informalization. Lack of regulation in the informal economy can also be as costly to informal operators as an excessive regulatory environment. Chen illustrates her point in the case of unregistered street vendors; many times municipal governments either try to eliminate them or turn a blind eye, which have punitive effects including eviction, harassment, and the demand for bribes by police, municipal officials, and other vested interests (Chen, 2007).

Chen presents arguments that more equitable linkages between the informal economy and the formal economy can, and should, be promoted through appropriate inclusive policy and regulatory environment. Like Mondal and Aryeetey, she argues for policies that balance the relative costs and working formally and informally. The paper highlights the fact that for many policymakers, formalization means incurring the costs of entry into the formal economy to self-employed, by forcing obtainment of licenses, registration of accounts, and paying taxes. Chen argues that this is not a sustainable approach for formalization, and that in order for the process to be feasible, there must be positive economic impacts for all parties – meaning that the self-employed must be ensured the benefits of operating formally, including enforceable commercial contracts, legal ownership of their place of business and means of production, tax breaks and incentive packages to increase their competitiveness, membership in trade associations, and statutory social protection. Chen also discusses the potential positive effects of formalization on informal wage workers, which would result in the conversion to a formal job with secure benefits and social protection. The paper concludes in uncertainty as to the feasibility of formalization; arguing that that most bureaucracies wouldn’t be able to handle the volume of license applications and tax forms if all businesses formalized, and that bureaucracies may not be able to provide the incentives and benefits to the newly formalized enterprises (Chen, 2007).

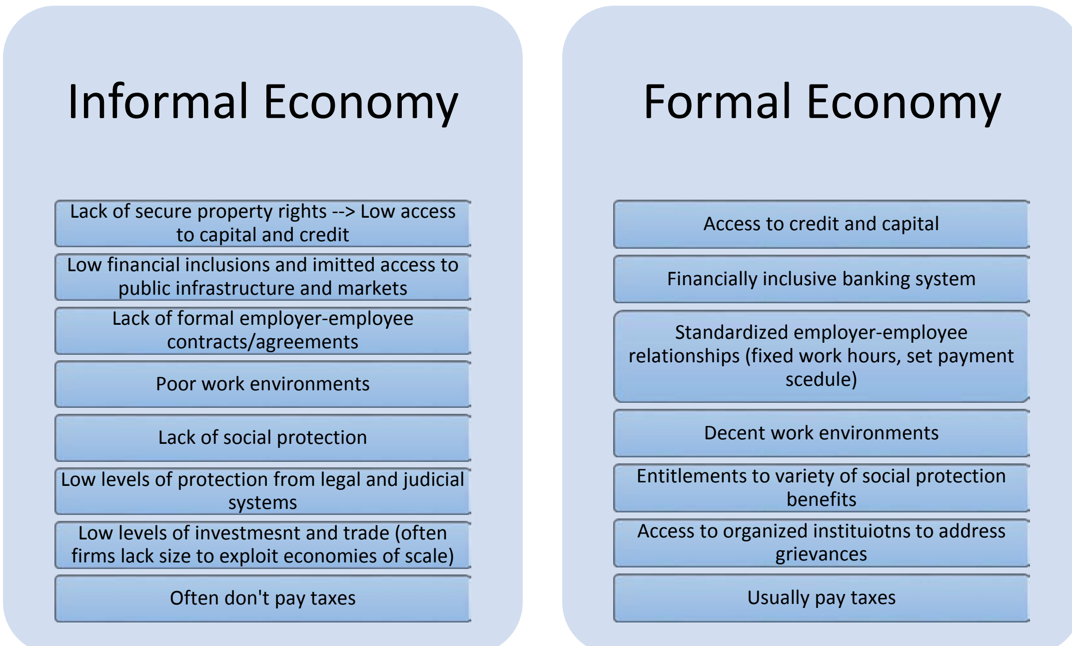
I argue that related literature presented in my paper demonstrate that the use of MFIs as a link between the informal and formal economies alleviate many of the concerns presented by Chen. MFIs expansion as a step in the process in formalization (such as outlined by Aryeetey) may prevent an overwhelming volume of registration/tax forms by easing into a more formal economy, rather than attempting to impose formality for all enterprises at once. MFIs also present the potential to transition the burden of providing incentives and benefits from bureaucracies, to the MFI institutions themselves.

Throughout the literature, there are several common themes regarding the potential of microfinance, dynamics between the informal and formal economies, and MFIs as an avenue of linkage between the two sectors of economies. The need for incentives for both MFIs and their potential clients is seen as key to the growth and expansion of microfinance in SSA. Macroeconomic policies and regulations are also underscored as imperative to promoting sustainability of MFIs and the integration between informal and formal economies, both in the banking sector and the labor market. Although past literature has provided means for examination of the dynamics between the informal and formal economies, as well microfinance's potential role in the relationship between the two economies, there is a gap in the qualitative analysis examining the role of microfinance in transforming specific aspects of the informal economy to that of the formal economy in a comprehensive way. By laying out predictions of existing literature and theory on the economic and social outcomes of increased use of MFIs, analyzing whether these predictions align with characteristics of the formal economy or the informal economy, and examining whether existing data support these predictions, my research aims to fill this gap.

Section III: Literature and Theory Analysis

In order to examine whether microfinance has the potential to effectively link the informal and formal economies, I first present a visualization of characteristics of both the informal and formal economy (Figure 1).

Figure 1: Aspects of the Informal vs. Formal Economy



As Figure 1 illustrates, many characteristics of the informal economy have opposing counterparts as aspects of the formal economy. For example, the informal economy is characterized as not having formal employer-employee contracts and relationships, while the formal economy is characterized as having standardized relationships with fixed work hours and set payment schedules.

In order to demonstrate that existing literature supports microfinance as an avenue for transitioning from an economy characterized by aspects of the informal economy, to that of the formal economy, I present a comprehensive overview of microfinance benefits identified by scholars and non-governmental organizations (Table 1). Column 1 is organized by aspect of the formal economy, followed by key papers that identify each aspect as an outcome of microfinance. Column 2 summarizes details of each paper's findings, followed by column 3, which summarizes methods used to reach each finding. Column 4 outlines the data used in each paper. Methods and data information for each paper are outlined only in the first row that that paper appears.

Table 1: Formalization Effects from Microfinance: As Identified by Key Papers

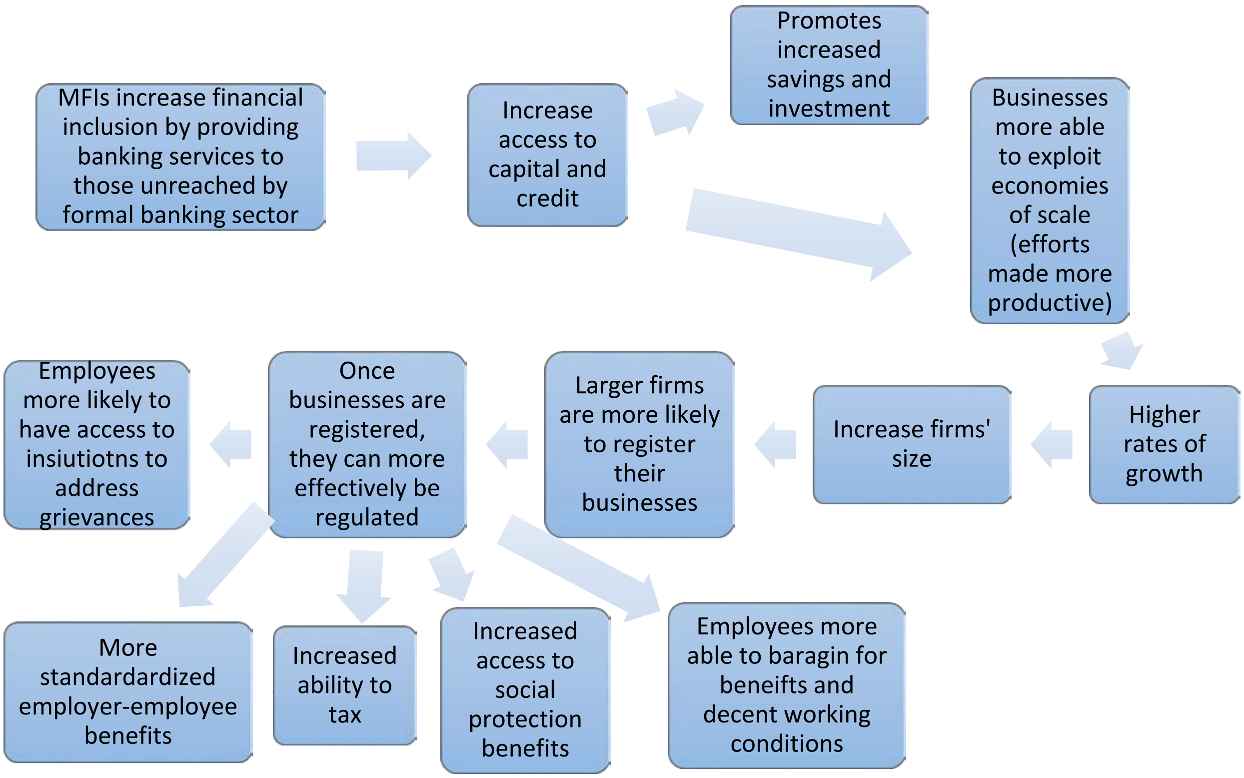
Paper	Finding – Impact of Microfinance	Methods	Data
Access to credit and capital leading to increased productivity			
The UN *Microfinance in Africa*	- credit used as working capital → clients effort become more productive (EX: can buy ride or grains in bulk at wholesale prices	- Qualitative analysis based on survey of UN projects in SSA	- 85 microfinance factsheets compiled for Africa and non-African countries (2000) - 3 one-week observation missions in 3 different African sub-regions (199-200) - Discussions held at meeting of African practitioners of microfinance (2000)
UN (2013)	- MFIs offer credit facilities ranging from traditional consumption financing to working capital loan products	- Qualitative analysis of past studies including cross-sectional and country-specific studies from CGAP, UNDCF, UN, Women's World Banking, African Development Bank	- Microfinance Information Exchange (MIX market database) - CGAP, UNDCF, UN, Women's World Banking, African Development Bank
Monal (2009)	- microfinance promotes growth in the labor markets and levels of savings among borrowers	- Analysis of primary data in assessment of the MDGs	- primary data of 297 microfinance institutions within 34 countries throughout SSA
Financially inclusive banking system			
The UN *Microfinance in Africa*	- MFIs build on Africa's traditional savings ethic to enhance outreach and quality of services		
*Pais and Sarma (2008)	- inclusive financial system → reduction in informal sources of credit	- OLS regression of financial inclusion with various socioeconomic variables	- Index of Financial Inclusion (2008) for 8 SSA countries
Dupas and Robinson (2009)	- despite negative interest rates (initial fee + low interest rates_ offered by savings accounts, *89% of respondents offered account opened one* - *55% actively used the account*	- Experimental study with empirical regressions	- Kenya - 122 respondents - Self-reported logbooks
Aryeetey (2008)	- rural MFIs generally reach 15% of population, compared to 10% of commercial banking sector	- Qualitative analysis of past studies	- Studies by Ghana Microfinance Institutions Network (2006)
UN (2013)	- MFIs create linkages with the formal financial system - MFIs in SSA maintained the highest growth in depositors of any region in 2008		
Standardized employer-employee relationships			
UN (2013)	-MFIs may provide opportunities to increase development aspects for informal wage workers, such as standardized workplace relationships and contracts		
Decent work Environments			
The UN *Microfinance in*	- Principle of collective		

Africa	organization used by MFIs empowered people to bargain for better work conditions		
Social protection benefits			
The UN *Microfinance in Africa*	- Principle of collective organization used by MFIs empowered people to bargain for health services, child-care, common forms of insurance		
UN (2013)	- In some countries, MFIs provide micro-insurance (loan, life and burials, health [MicroCare in Uganda] , crop [Opportunity International in Malawi], property)		
Access to institutions to address grievances/legal system			
**Woodruff (2013)	- access to legal institutions mentioned as benefit from formalization by firms 1 year after they had been given incentive to register their businesses	- quantitative and qualitative analysis of fieldwork and previously reported tax data	- fieldwork/surveys in Sri Lanka, tax data from Mexico and Bangladesh
Taxes			
**Woodruff (2013)	- registration of businesses/firms increases ability to tax (increases revenue) → higher level of formalization - registered business more likely to believe 'being a good citizen means paying taxes'		
Investment			
Dupas and Robinson (2009)	- Usage of interest-free savings accounts (even with negative interest rates) *increased productive investment for women*		
*Pais and Sarma (2008) run regression analyzing the relationship between financial inclusion and socioeconomic variables. I include their work in my analysis as the fundamental reasoning behind microfinance is to increase levels of financial inclusions			
**Woodruff (2013) presents evidence based on field work in Sri Lanka, Mexico, and Bangladesh although his conclusions are relevant to other developing countries, such as those in sub-Saharan Africa			

Table 1 provides synthesis of existing literature and theories' prediction of the economic and social outcomes of microfinance in SSA. As shown, individual papers and reports have each highlighted microfinance (or increased financial inclusion) as promoting specific aspects of the formal economy.

However, analysis can be furthered by investigating the relationships between aspects of the formal economy encouraged by microfinance. Thorough examination of literature and theory on the subject reveals that microfinance has the potential to serve as an avenue towards formalization – connecting each aspect through cause and effect flow relationships (Figure 2).

Figure 2: MFIs as an Avenue Towards Formalization



Through initiating and providing supporting framework and programs, MFIs act as mechanism through which formalization of economies can occur (Figure 2). Microfinance creates a more inclusive financial system by providing banking services to those who would not normally have access, building upon traditional savings ethics to enhance outreach and quality of services (The UN *Microfinance in Africa)*(Aryeetey 2008). A more inclusive financial system leads to a reduction in the use of informal sources of credit. Increased access to capital and credit not only promotes savings and investment for businesses engaged by the institution, but also makes their efforts more productive (i.e. they are better able to exploit economies of scale) (The UN *Microfinance in Africa).* As a result of increased returns to investments, actors will experience higher growth rates (implying a decrease in poverty level). If consistent over time, higher growth rates would likely lead to increased firm size for businesses involved, which is directly linked to the likelihood of actors to register their businesses (Woodruff 2013). Once a firm is registered, they have direct link with the formal regulatory environment. Registered firms can more easily and effectively be taxed, and registered business owners are more likely to believe that their duty as an upstanding citizen involves paying taxes (Woodruff 2013).

Relationships between employers and employees, as well as that of the businesses and employees' relationship with the government, also shifts once a business is registered. Employer-employee relationships are more likely to be standardized – with set working out hours and payment schedules (The UN *Microfinance in Africa)* (UN 2013). Workers will also be encouraged to bargain for decent work environment and increased access to social protection benefits such as health services, child-care, and common forms of insurance (The UN *Microfinance in Africa)* (UN 2013). Employees of registered and regulated businesses also have increased access to institutions to address their grievances, including legal and judicial systems (Woodruff 2013). The more standardized work relationships, increased ability to address grievances outcomes, access to social protection benefits, and improved working conditions, all indicate benefits that go beyond increasing income levels and dependability to addressing multidimensional aspects of poverty in ways that reduce the social vulnerabilities of the poorest populations.

The progressions from increasing financial inclusion to the eventual benefits enjoyed by formalization through microfinance are both logical and supported by existing literature. However, this process cannot be expected to transpire without supporting programs, efficient management and regulations, as well as incentives for all actors involved. Each step towards a formal economy can be encouraged by MFIs and governmental actions through a variety of methods. Macroeconomic policies and regulations relating to both the labor market and MFIs are critical in supporting MFIs as sustainable enterprises. The Consultative Group to Assist the Poor (CGAP) cites that the most important role governments can take in supporting microfinance is to maintain macroeconomic stability through appropriate monetary and fiscal policies (Latortue 2004).

CGAP also notes encouraging the private sector to take and active role in financial sector development, including microfinance, would help create a more inclusive financial sector (Latortue 2004). However, in involving formal banks, microfinance development strategies run the risk of clouding the original vision of providing financial services to the poorest and most vulnerable populations, with the ideals of the profit-maximizing private banking sector. Therefore, linking MFIs with formal banks should only be carried out with supervisory mechanisms that ensure the vision of microfinance as a tool for the poorest is maintained.

The importance of appropriate levels of regulation has also been underscored as central to the success of MFIs. Although sustainable institutions require penalties for misconduct, rule breaking, or loan default, as well as taxation and registration fees, the rewards of engaging in microfinance must outweigh these penalties in order to incentivize participation. Additionally, the potential benefits of MFIs will likely be positively affected by the monitoring of businesses' progress towards formalization; this would provide insights as to where additional incentives and encouragement may be needed to more efficiently facilitate the transition.

The benefits and sustainability of MFIs may also be bolstered by the inclusion of cultural considerations in the model for implementing and operating such enterprises. A number of studies conducted in countries including Cambodia, Mali, Bangladesh, and Indonesia, have demonstrated that integration of local culture and the targeting of women were key aspects contributing to the success of MFIs (Phlong 2009) (Deubel 2003) (Varghese 2001) (Rudjito 2003). Cultures with preexisting traditions of group lending, interdependence, and high levels of are likely to have greater success with microfinance models (Aggarwal et. al., 2015) (The UN *Microfinance in Africa)*.

Although the identified potential benefits of microfinance and formalization are wide-ranging and have been recognized by economists, social scholars, governments, and non-governmental organizations, criticisms of the microfinance model are also present in the current literature. The majority of these criticisms are in reaction to the notion of microfinance as a 'cure-all' for economic and social problems in developing countries. The diversities of the SSA region, as well as the holistic approaches needed to address the multidimensional aspects of poverty, must be kept in consideration when implementing the microfinance model. In order to be effective, MFIs must be adaptable to the broad range of social, geographic, and cultural conditions within the region. Additionally, microfinance cannot be used exclusively as the poverty reduction tool, but rather in compliment to other development strategies, such as reforms in education, government, and health care, as well as women's empowerment programs and equality laws.

In summary of the concerns of the microfinance model, CGAP outlines circumstances under which MFIs may not be the best strategy:

> "Microcredit may be inappropriate where conditions pose severe challenges to standard microcredit methodologies. Populations that are geographically dispersed or nomadic may not be suitable

> microfinance candidates. Microfinance may not be appropriate for populations with a high incidence of debilitating illnesses (e.g., HIV/AIDS). Dependence on a single economic activity or single agricultural crop, or reliance on barter rather than cash transactions may pose problems. The presence of hyperinflation, or absence of law and order may stress the ability of microfinance to operate. Microcredit is also much more difficult when laws and regulations create significant barriers to the sustainability of microfinance providers (for example, by mandating interest-rate caps)" (http://cgap.org)

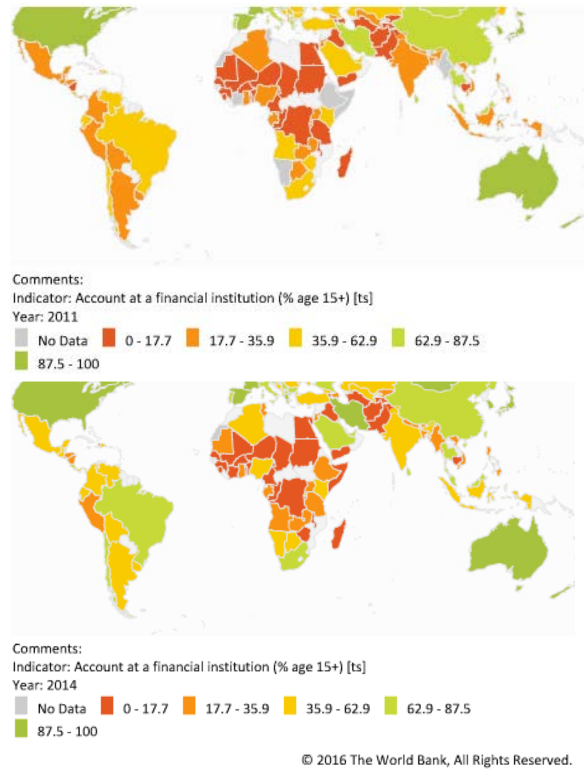
The concerns of hyperinflation and lack of governmental oversight are potentially addressed with the use of appropriate regulatory and macroeconomic policies in conjunction with MFIs. However, this criticism does highlight potential geographic, social, and health related obstacles that may need to be addressed in order to ensure the sustainability of microfinance as a poverty reduction and formalization strategy.

Section IV: Purposed Empirical Model and Current Data Availability

An empirical model derived from the theoretical framework described above would provide quantitative analysis of whether microfinance is effective in promoting formalization in the SSA region. The theoretical model presented in the previous section could be translated into regressions of the use and prevalence of MFIs on sets of variables that indicate level of formality- including financial inclusion (and access to capital/credit), formal sector employment, working conditions, social protection benefits, and access to the legal and judicial systems. Unfortunately, the data available for these variables is not comprehensive enough to conduct a time series regression for the SSA region. This section outlines the current status of data availability in order to explain why regression analysis derived from my theoretical model is not yet attainable, as well as highlight the gaps that would need to be filled in order to make these regressions feasible.

The data set for use and expansion of MFIs in operation in SSA countries is comprehensive for most SSA countries, generally for the years 2005-2014, though there are exceptions. The most complete database comes from the Microfinance Information Exchange (MIX Market), which provides information on over 2,000 microfinance institutions around the world. It collects performance data directly from MFIs, which are then validated by MIX Market analysts. MIX Market provides data for number of Microfinance Institutions in each country, and reports on a number of variables related to microfinance use in SSA for each country, including: MFI count, median number of active accounts, gross loan portfolios (USD), deposits, level of outreach (small, medium, large), regulation status (yes, no), and risk coverage (%). Approximately 81% of the MFIs included in the database are externally audited, and 28% have been independently rated, generally by a firm specialized in microfinance. The data set is relatively complete and could be used in a potential regression analysis, once sufficient data for formality variables are available.

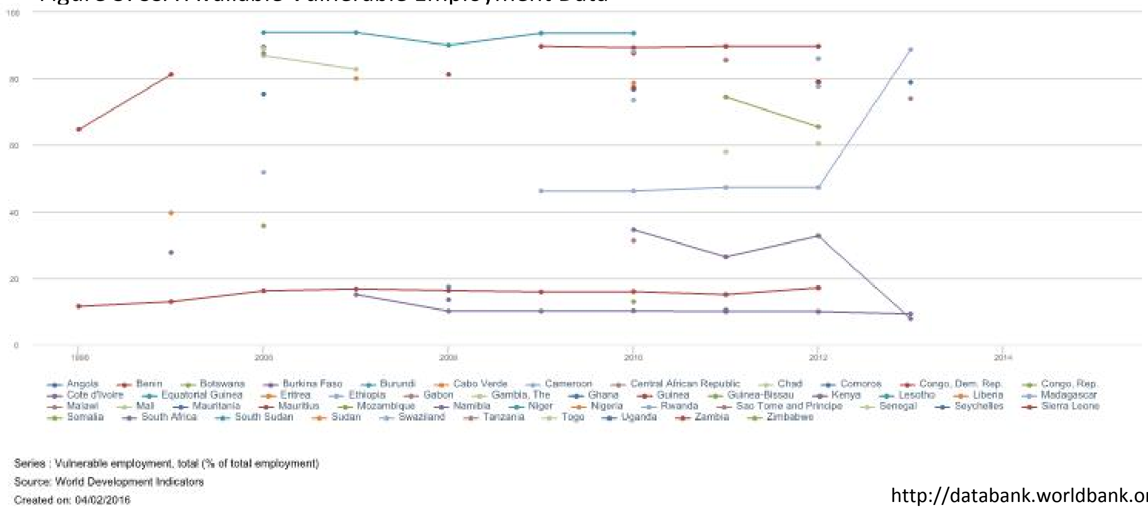
Figure 2: Financial Inclusion: 2011 vs. 2014



The Global Findex Database, created by the World Bank is currently the most comprehensive database on financial inclusion that measures people's use of financial services across countries and over time. Findex data is collected in partnership with the Gallup World Poll and funded by the Bill & Melinda Gates Foundation, and is based on interviews with about 150,000 nationally representative and randomly selected adults (age 15+) in over 140 countries. Key indicators available through this database include, account owners (% age 15+), formal savings (% age 15+), and formal borrowing (% age 15+). However, data for most countries in region has thus far only been reported for the years 2011 and 2014, with some countries reported only for 2014, and some that have no data yet available (Figure 2).

An alternative data source that could potentially serve as a measure for levels of financial inclusion in an empirical regression is the Index of Financial Inclusion (Sarma 2008), which aims to capture information on various dimensions of financial inclusion through a multi-dimensional index in one single digit lying between 0 and 1 - where 0 denotes complete financial exclusion and 1indicates complete financial inclusion in an economy. The data to derive this index comes from the World Bank and the IMF. However, due to lack of metadata to calculate this index, these values are only calculated for 2004, and for only select countries in the SSA region.

Figure 3: SSA Available Vulnerable Employment Data



http://databank.worldbank.org

The lack of reliable formal sector employment data for the region presents difficulties for quantitatively examining level of formality's relationship to the use of microfinance. The current employment reports account for both formal and informal employment, depending on the type of survey used. Not only is this problematic for differentiating between the two sectors, but if different survey types are used within a country or across countries, and the coverage or definitions used for employment vary across the surveys, the employment data estimates may not be comparable across years nor countries.

An alternative employment measure that could be used in a potential empirical model is vulnerable employment. The ILO defines workers in vulnerable employment as the sum of own-account workers and contributing family workers. These workers "are less likely to have formal work arrangements, and are therefore more likely to lack decent working conditions, adequate social security and 'voice' through effective representation by trade unions and similar organizations. Vulnerable employment is often characterized by inadequate earnings, low productivity and difficult conditions of work that undermine workers' fundamental rights" (Global Employment Trends 2010). Because the definition of vulnerable employment workers aligns closely with aspects of workers in the informal economy, such data would be useful in quantitative analysis. However, data collected for vulnerable employment is not yet complete enough for potential regression analysis to be meaningful (Figure 3).

Currently, the most robust resource for data measuring social protection in SAA comes from the World Bank's Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE). Key indicators available in this database are calculated in percent and include coverage of all social protection and labor in total population, adequacy of all social protection and labor benefits in total population, benefits incidence of social assistance in poorest quintile, and impact on poverty and inequality reduction of all social assistance. However, data for these indicators have not been consistently collected or reported in the SSA region in enough years to conduct reliable regression analysis on the relationship between social protection and use of microfinance (Figure 4).

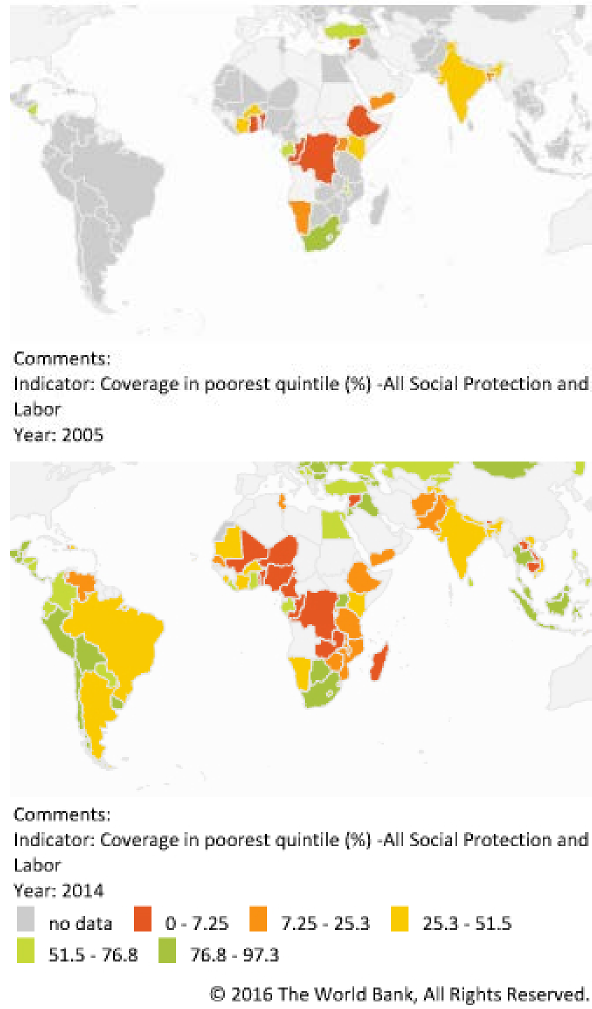


Figure 4: Coverage in Poorest Quintile (%) – All Social Protection and Labor: 2005 vs. 2014

Data for measurements of access to the legal and judicial systems would also be beneficial in evaluating levels of formality in the proposed empirical regression. However, many sub-Saharan African countries do not have a central source for official information of this nature, and international organizations such as The World Bank and United Nations have yet to obtain or collect reliable measurements. Perhaps more concerning than the lack of data regarding access to legal institutions, sub-Saharan African countries generally have low levels of budgetary and human capital resources (i.e. lawyers), physical infrastructure, and regulatory procedures to create an efficient legal system that could potentially be accessed. The lack of robust legal systems and structures in the region is a related yet complex issue, which this paper will not address directly (United Nations Office on Drugs and Crime 2011).

Section V: Discussion

By examining the existing work published regarding the potential and demonstrated benefits of microfinance, the compiled results reveal that the benefits of microfinance align with characteristics of the formal economy. Further analysis demonstrates that MFIs have the potential serve as mechanisms towards formalization - if supported through appropriate regulations, monitoring, incentivization, and macroeconomic policies. Cultural considerations and empowerment are also key aspects to successful microfinance models. Though the lack of reliable and comprehensive data for SSA limits the conclusions of this study, the findings imply that microfinance can indeed potential to effectively link vulnerable and financially excluded populations with the formal banking sector and higher levels of social and economic protection in this region (The World Bank, *Law and Justice Institutions*).

Section VI: Implications and Next Steps

My results have significant implications for development strategies in sub-Saharan Africa, specifically regarding the use of microfinance institutions. The theoretical model developed in this paper suggests that increasing microfinance initiatives in the region would lead to a number of social and economic benefits associated with formalization. The literature on the subject also indicates that in order for the benefits of microfinance to be fully realized, proper macroeconomic policies, regulation, incentivization, and cultural considerations must be properly addressed during implementation and operation of MFIs. This indicates that sub-Saharan African countries and NGOs should emphasize the growth of microfinance in development strategies, but that this must be accompanied by supporting programs and supervisory mechanisms.

However, before resource intensive pro-microfinance programs are implemented, thorough empirical analysis should be conducted. This must begin with methodical and comprehensive data collection for variables derived from the theoretical model described in this paper - including data for: financial inclusion, formal sector or vulnerable employment, social protection benefits, and access to the legal/judicial systems. In order to conduct an unbiased and reliable regression, each variable’s data needs to be collected using consistent methodology across countries and years. A comparison with the evolution and increased prevalence of MFIs in the region ideally would utilize data spanning from pre-2005 (when microfinance greatly expanded) to the current year, though data collection for past years may not be possible.

Once a robust database of variables indicating levels of formality is compiled, an empirical regression could be run to quantitatively determine the relationships between microfinance and the included formality variables. If the use of MFIs correlates with indicators of formality within SSA economies, this would further reinforce the conclusions drawn on by the qualitative analysis conducted in this paper.

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