The impact of Microfinance Institutions on the Informal Economy in Nigeria

Osuagwu, Eze Simpson and Hsu, Sara and Adesola, Ololade

International Institute for Development Studies, Wilmington Delaware, Fudan University, UK Microfinance Association

June 2021

The impact of Microfinance Institutions on the Informal Economy in Nigeria

Sara Hsu
Visiting Scholar
Fudan University

Eze Simpson Osuagwu
Covenant University Ota, Nigeria
eze.osuagwu@covenantuniversity.edu.ng
&
Senior Research Fellow
International Institute for Development Studies
Wilmington, DE United States

Ololade Adesola
Fellow
UK Microfinance Association

Abstract

This paper investigates the impact of microfinance institutions on the informal sector of the Nigeran economy drawing from a cross-sectional data of 14,189 customers from two major microfinance clusters – the Self-Reliance Economic Advancement Programme (SEAP) and ASHA Microfinance Bank Limited with a combined membership of over 700,000 clients. The study applies a descriptive and fully modified ordinary least square (FMOLS) model to evaluate the statistical relationship on average monthly borrowing amount and explanatory variables of factors that could affect the ability of clients to seek support from the various microfinance institutions. Empirical evidence suggests that amount of money borrowed by clients is significantly affected by the nature of business; whether the business is operating in the formal or informal sector, gender of the entrepreneur, and on the other hand whether the degree of borrowing is strongly affected by monthly household expenses of borrowers. The paper therefore concludes that the informal sector is largely supported by micro finance institutions but seeks a policy redirection for government to take steps to formalize the large stream of informal borrowers in order to improve domestic resource mobilization and actualize sustainable development of the Nigerian economy.

Keywords: Microfinance, Informal Economy, Domestic Resource Mobilization, Sustainable Development, Nigeria

JEL Classification: E26, G21

1.0 Introduction

The Nigerian economy is largely made up of an informal sector which is the largest employer of labour. The informal economy suffers a serious setback in developing countries because of the absence of formalized savings and credit system (Tchuigoua 2015, Medina, Jonelis and Cangul 2017). This informs the reason why the microfinance scheme was set up by the Central Bank of Nigeria to mobilize savings and provide credit for the teeming population engaged in informal economic activities. Many peasant farmers and petty traders have benefited from the local systems of credit and savings mobilization that exists in the traditional society before the intervention of monetary authorities to expand credit availability. The informal sector in Nigeria includes the activities of artisans, street hawkers, and vendors engaged in different trades, which oftentimes constitute a huge environmental and social menace. These individuals expose themselves to risk in urban centers as they struggle to eke out a living with meagre resources. With the advent of microfinance scheme many informal sector practitioners were able to receive funds to boost their businesses or trade. Albeit, the paucity of funds in the informal economy makes it imperative for a regulated microfinance institution to come on stream for the provision of the much-needed financial infrastructure to drive micro, small and medium enterprises. The question is, has the microfinance scheme improved funding of the informal sector in Nigeria?

The role of micro and small-scale enterprises, which constitute the bulk of the informal sector cannot be overemphasized. In India for instance over 75% of all businesses are in the informal sector (Chung 2015). In 2017, the informal sector in Nigeria contributed about 65% to GDP (Medina, Jonelis and Cangul 2017). To this end, the informal sector is a veritable source of revenue and needs to be given the necessary attention to effectively mobilize funds to enable the attainment of sustainable development goals. An empirical understanding of the source of funding for the informal sector is another means of formalizing the sector for the benefit of increasing tax revenue to government (Ogbuabor and Malaolu, 2013; Fapohunda, 2012; Ikeije, Akomolafe and Onuba 2016). Increased revenue mobilization in the informal sector will also reduce unemployment in the overall economy. In order to facilitate adequate mobilization of savings and credit to the informal sector through the microfinance scheme there is a need to understand why and what they need the funds for. As a result, this study intends to fill a very wide gap observed in the literature of informal sector financing through the microfinance scheme in the Nigerian economy by incorporating some microeconomic variables that will elicit the dynamics of the borrower. Some researchers have observed that informal sector financing is a form of social protection for the poor in the society because loans disbursed to them are hardly recovered (Siwale and Okoye 2017). Nonetheless, in some jurisdictions financing of the informal sector is supported by a government loan guarantee scheme to cushion the effect of default on financial institutions (Adeola and Evans 2017). But the insufficiency and the reluctance of formal institutions to support micro and small enterprises owing to lack of collateral or proper business documentation still forces participants to rely on the traditional rotatory contributory savings scheme that provides meagre credit facility.

Like many other developing countries, Nigeria has both formal and informal economic sectors. Participants in the informal sector have oftentimes struggled to obtain finance, and some of them have turned to microfinance institutions to help them fund their businesses or otherwise smoothen economic shocks. Many loan applicants in the microfinance scheme work in the informal sector, but possess a wide range of monthly incomes, in large part due to the provision of microfinance loans. In this paper, we analyze original survey data obtained from microfinance institutions in Nigeria to analyze some of the factors that determine the demand for funds. We find that the majority of borrowers from Nigerian microfinance institutions work in the informal economy selling goods and engaging in small scale agriculture. We describe separately the informal sector in Nigeria, microfinance in the country, and reasons for informality. We then discuss the result of the survey and present a regression model to explain household income and borrowings from microfinance institutions. Interestingly, we find that household income is impacted by working in the informal sector, while borrowing from microfinance institutions is not impacted by working in the informal sector. Other factors, such as gender and entrepreneurial skill also affect microfinance borrowing. This study innovates by incorporating microeconomic variables, which determine the demand for loanable funds in the informal sector of the Nigerian economy. This study will enable policy makers to effectively implement policies that will eventually expand the scope of financing the micro and small-scale enterprises through microfinance institutions for sustainable economic development. The paper will be structured in six sections, the next section will be a review of both empirical and analytical literature on the informal economy and microfinance institutions in Nigeria, the third section will feature the theoretical and analytical framework, the data and method of analysis is in the fourth section, the fifth is the discussion of empirical findings and the sixth section concludes.

2.0 Literature Review

2.1 Informal Sector in Nigeria

Nigeria relies heavily on the informal sector for GDP creation, as its formal economic sector are still underdeveloped. According to the Nigerian National Bureau of Statistics in 2015, the informal sector contributed 41% of Nigeria's GDP, and from Medina *et al.* (2017) the number is over 65% for 2017. In the agricultural sector, the informal sector share accounted for 92% of agricultural GDP. Sectors that were largely informal rather than formal also include the entertainment, real estate, food services, and trade sectors. These sectors often require less capital than other industries and are easy to enter and exit. Due to structural problems within the formal economy, the informal sector workers would otherwise be unemployed. Unemployment is about 38% and entrepreneurships serve as the only way out of an idle situation. The absence of government welfare scheme makes it imperative for unemployed youths to begin to explore entrepreneurship. So much so that now, the flexibility and independence afforded by business ownership is attracting more youths to entrepreneurship.

Many of Nigeria's informal workers work in small scale enterprises, small service providers, or trading businesses. They are also found in manufacturing enterprises, which produce food, beverage, tobacco, textile, and wood products. Informal workers are characterized by low levels of education, limited access to working capital and investment, and lack of access to social services. They often face poor, unstable, and/or unsafe working conditions and harassment; for example, those in the Niger Delta area whose farm and fresh water source for fish and other sea foods are often polluted by oil spills and gas flaring from oil exploration activities (Osuagwu and Olaifa 2018) and those affected by seasonal fluctuations (Enimu, Igiri and Achike 2016). Such workers would prefer to work in the formal sector, but this sector is not robust enough to absorb all those in need of employment. A slightly large number of informal workers are women, who tend to work in less capital-intensive and profitable enterprises. Olabisi, Olagbemi, and Atere (2011) examine whether there are factors that impact small business performance between female versus male-owned informal businesses in Lagos

State, Nigeria. Fifty small businesses were selected and surveyed using a structured questionnaire. The authors find that women start their own informal business in order to remain flexible to meet family needs, while both genders start a business for their survival. Women consider access to finance to be the biggest challenge to starting their own business, while men do not.

Rather than representing a choice taken over employment in the formal sector, the informal economy often serves as the next level above poverty. In Nigeria, the rate of extreme poverty is the highest in the world, marking 48% of the population as of December 2019 (World Data Lab 2019). Unemployment of young people is a huge problem. During periods of high unemployment, the education level of informal workers rises; that is, college or technically educated workers are unable to find work elsewhere (Onyebueke and Geyer 2011).

The informal sector does generate GDP growth, yet is often not relied upon to generate greater levels of economic development. There are several reasons for this. One is that workers often enter industries that are already existing, highly competitive, low technology, and low skill. Another is that formal jobs are seen as a "graduation" from the informal sector, as these jobs pay more and provide benefits. Therefore, as individuals gain more skills and education, they move out of the informal sector, providing greater amounts of human capital to the formal sector. In addition, informal businesses tend to have lower levels of capital accumulation, which restrains them from achieving greater levels of productivity.

In addition to these factors, Nigeria's informal economy has its own characteristics that have restrained its productivity. Meagher (2010) provides an explanation as to why Nigeria's informal economy has failed to result in economic development. Looking at two informal enterprise clusters in Nigeria, Meagher describes their shift into vigilantism and Pentecostalism rather than into wealth. Vigilantism can be exemplified by the Bakassi Boys, who restored order to Aba's informal shoe producers in the late nineties. Shoe producers faced armed robbery and the threat of violence, and the Bakassi Boys took a public security levy to restore order to the industry. The group did apply occult practices, murder, and violence, eventually becoming a political weapon in the struggle between state and federal governments. This resulted in the transformation of the group into an unaccountable state-level security organization with the ability to repress political opposition.

In addition, Meagher (2009) discusses the fact that progressive religious tendencies among the poor in Nigeria have undermined entrepreneurship in the informal economy due to the influence of religious entrepreneurs and political elites. While the Pentecostal and reformist Islamic religious movements have emphasized a strong work ethic and personal advancement among the middle class, they have also been used as tools by political leaders to capture electoral support. Meagher (2011) analyzes organization strategies for urban governance in Nigeria, asking whether informal economic networks result in economic and political empowerment or poverty and chaos. She notes the ways in which liberalization has resulted in the marginalization of the poor in informal enterprise associations. Meagher finds that one explanation for this is that social capital may be unable to enhance political representation. As a result, Nigeria's informal sector lags behind.

Another aspect of disempowerment is the inability of those in the informal sector to obtain finance, even though Nigeria's government has been attempting to address this issue for several decades. For example, in the late 1980s, the government's financial liberalization program increased the number of banks and financial houses, but the poor continued to suffer from a lack of credit. The government at that time set up the People's Bank to provide microfinance loans. The private sector was also encouraged to set up what was known as Community Banks. It was these community banks that evolved into Microfinance Banks later in 2005. Microfinance institutions were established to fill the financing gap for the underbanked population, a majority of whom worked in the informal sector. Fapohunda (2012) describes the role of women in Nigeria's informal sector, looking at how this sector can be integrated into the mainstream economy. A major reason for the rise of the informal sector is due to the fact that women have existing family responsibilities or lack skills and access to the formal sector. The informal sector has the capacity to absorb much labor but faces challenges due to a lack of credit in particular.

Informalization in Africa.

The African informal sector is also different in that the practice of differentiating between employers and informal workers is less pronounced in African cities than in Latin American cities (Meagher 1995). Many of the workers are not entrepreneurs per se but are working as commission sellers or working on a survival basis. For profitable sectors of the informal economy, there are barriers to entry that keep competition out. One aspect of the informal economy in West Africa is the practice of apprenticeship, although this does not necessarily guarantee easy entry into profitable sectors and may result in some degree of exploitation.
We note that even within Africa, applicable informal economic theories vary due to heterogeneous cultures, histories, and economies throughout the continent. Generally, Africa can be divided into different regions that have similar characteristics according to the UN Geoscheme for Africa: North Africa, East Africa, Central Africa, West Africa, and Southern Africa.

In West Africa, organizations along ethnic and religious network cannot be ignored. Entrepreneurs in more lucrative activities come from particular ethnic groups, for example, the Igbo group in Nigeria. This ethnic group tends to prefer to employ and train members of its own group over others. Minard (2009) examines Senegal, West Africa, and proposes that the informal economy is not a survival economy but rather an innovative economy and engine of economic development. She finds this is particularly true of socio-religious networks like Mouridism, which has stressed the value of work and giving back to the Muslim brotherhood.

Adom (2014) underscores the argument against a single motivation for informal workers for Ghana, also in West Africa. Using in-person interviews, Adom shows that informal entrepreneurs are not motivated only by necessity or opportunity, but often by both together. Most tend to be driven by necessity, which contradicts a study by Cross (2000) that most operate in the informal sector out of choice. His research adds to that by Chu, Kara, and Benzing (2008), who find that in Nigeria, the motivations for entrepreneurship were mainly independence, satisfaction, growth, increasing income and past training/experiences.
According to Potts (2008), in Southern Africa, informal employment is a relatively new phenomenon, since segregationist legislation discouraged this type of activity in South Africa, Namibia, and Zimbabwe. Government policies toward this sector waffled between supportive and oppositional in South Africa, and reflected government antipathy and disfavor in Zambia, Malawi and Zimbabwe. In Zimbabwe, the movement against informality also resulted in elimination of informal housing as well as informal employment.

Lund and Skinner (2004) emphasize the fact that apartheid helped to shape South Africa's informal economy. This is because non-whites were restricted in access to skills development for particular occupations as well as the right to establish businesses. The informal economy began to be accepted in the 1980s as an alternative to state welfare provision. Khavul, Bruton and Wood (2009) study the informal economy in East Africa, noting that registering a formal business is extremely cumbersome. The cost per person to obtain business licenses in East Africa is 148% of per capita income compared to 5% in OECD nations. Eight in-depth interviews are carried out and reveal that half of the businesses were built around strong family ties, and the other half were built around strong community ties. As a result of these different characteristics and reasons for the rise of informal economies in Africa, we caution that one must not be quick to generalize about the informal economy across the continent, or even in Nigeria alone. This is because Nigeria is the most ethnically diverse country in Africa, with over 250 ethnic groups and 500 mutually unintelligible languages spoken. What is more, Nigeria's experience with political and economic instability makes it difficult to ascertain whether analysis gleaned about the informal economy and its interaction with microfinance will remain intact over the medium to long run.

2.2 Microfinance in Nigeria

Nigeria embarked upon provision of microfinance services starting in the 1980s and 1990s as NGOs and governments worked to extend microcredit as part of their mandates (Ogujiuba, Jumare, and Stiegler 2013). NGOs extending microcredit include the Country Women Association of Nigeria, Nsukka United Self-Help Organization, and Lift Above Poverty Organization. Microfinance institutions have grown due to an expansion of Nigeria's informal economy, and due to banks reluctance to fund government supported cooperatives without collateral requirements. These programs had a limited impact on credit for small and micro businesses. As a result, in 2005, the Central Bank of Nigeria launched the Microfinance Policy Guidelines for Nigeria in order to commercialize the microfinance business and provide a supervisory framework. The aim of the policy was to provide financial services for the poor and women and to increase participation of local governments in microcredit financing. Community banks were required to convert to microfinance banks by December 31, 2007.

At present, the microfinance sector in Nigeria is divided into microfinance banks (MFBs) and non-bank microfinance Institutions (MFIs). The MFBs are regulated by the Central Bank (CBN), while the MFIs were left to themselves because they accept deposits only from their members. However, some MFIs are so large and command balance sheets in excess of $20m, that the CBN is developing a policy to manage them formally. There is a vast literature on Nigeria's microfinance institutions and its impact on poverty reduction, of varying levels of quality and rigor. We review some of these for background on the microfinance sector. Keeping in mind that many microfinance customers belong to the informal economy, we look at studies that examine the effectiveness of such institutions. The first point to make is that studies are conflicted about whether microfinance actually helps reduce poverty or improve individuals' circumstances. Prior and Mora (2019) show that microfinance indeed help customers to increase their income through the accessibility of micro-credit. Oshinowo, Olayide and Azeez (2018) also concludes that microfinance can help the rural poor improve their economic conditions. Looking at the role played by the Rural Finance Institution Building Programme (RUFIN) in Oyo State over six years, the paper finds that microfinance has had a positive impact on the well-being of loan participants.

Okpara (2010) considers some factors that cause poverty in Nigeria and how microfinance institutions can help to alleviate poverty. Findings of the study show that low profit, high commodity prices, hard economic times, lack of finance to start or expand business, and poor business performance are critical factors affecting poverty, and that microfinance can alleviate the impact of these factors. In the same vein, Yahaya and Osemene (2011) analyze the impact of microfinance banks in poverty alleviation in Kwara state, Nigeria. The authors show that microfinance reduces poverty by generating employment and helping to grow small businesses. Ekpe, Mat, and Razak (2010) took a different dimension of gender bias to examine the impact of microfinance on women entrepreneurs' performance in Nigeria. The result indicate that entrepreneurship can be a means of poverty reduction for women, but that women often lack access to microfinance to begin with. Olu (2009) and Siwale and Okoye (2017) took a step further to find that microfinance promotes entrepreneurial development of small-scale enterprises. Many of these studies used secondary data with less emphasis on the qualitative responses that emanate from original survey data of participants to show significant relationship between microfinancing or micro-credit and improved performance of small-scale enterprises especially those in the informal sector of the economy. This study applies original survey data from participants to capture some of the microeconomic factors that drive the demand for micro-credit in the informal economy.

Ihugba, Bankong and Ebomuche (2014) examine Nigerian microfinance in Imo and its impact on poverty reduction. The authors use a stratified sampling method in the region, choosing four microfinance banks in each of the three Senatorial Zones. Customers were randomly sampled. Most respondents were male, lacking much formal education. The authors find that the higher income respondents appear to be better able to save than the poor living in rural areas, so that the poor have a greater need for microfinance. Ebimobowei, Sophia, and Wisdom (2012) examine the microfinance-poverty nexus in Bayelsa State, Nigeria. The investigators conduct a survey on 286 female respondents, uncovering a significant relationship between microfinance and poverty reduction. They note that there is a significant difference between the impact of microfinance versus the traditional rotating credit system. However, the authors assert that microfinance cannot reduce poverty by itself and must be accompanied by appropriate infrastructure and improved political institutions to help small business owners grow.

Nwankwo, Olukotu, and Abah (2013) describe the rise of microfinance institutions in Nigeria as a result of the inability of banks to serve the rural poor. Microfinance has been effective in providing the rural poor with loans and advances for agriculture as well as savings and investment opportunities, but challenges remain due to difficulties in repayment and illiteracy (including financial illiteracy) among the poor. Ayodele and Arogundade (2014) analyze the impact of microfinance on economic growth in Nigeria. The authors show that loans and advances to the public significantly impact economic growth. Also looking at microfinance on a national level, Ehigiamusoe (2008) examines the effectiveness of microfinance in delivering loans to the poor as part of national strategies. Other studies are inconclusive or negative about the effectiveness of microfinance. This may be because interest rates are very high, and microfinance banks have faced difficulties in raising cheap deposits from the public due to their high failure rate.

Nwigwe, Omonona, and Okoruwa (2012) provide a critical assessment of microfinance as a means of reducing poverty. The authors argue that although microfinance is innovative, its impact on poverty reduction is unclear. The article concludes that microfinance plays an important role in providing a safety net, but that a broader financial inclusion agenda should be adopted. Babajide (2012) looks at the impact of microfinance on micro and small business growth in Nigeria, showing that microfinance does not improve growth of micro and small enterprises, but that business size and location do affect small firm growth. Olowe, Moradeyo, and Babalola (2013) analyze the effect of microfinance on the growth of small and medium size enterprises (SMEs) in Ibadan, Oyo State, Nigeria. Simple random sampling was used to collect surveys on 82 SME operators. The authors find that microfinance institutions have a positive impact on small and medium sized enterprise growth, but that this is not statistically significant. The paper suggests that some reasons for this may be higher interest rates and loan repayment frequencies, which can dampen small and medium sized enterprise growth before positive effects can take place. Kazi and Leonard (2012) assert that unemployment is a basic cause of poverty. In Nigeria, poverty and chronic youth unemployment are serious problems that microfinance has struggled to address. The authors assert that the Grameen approach to microfinance programs is more effective in reducing poverty and unemployment, and that this method should be transferred to Nigerian programs.

Scholars provide reasons for the inability of microfinance to improve economic conditions of customers. Ikechukwu (2012) describe the challenges faced by microfinance in Nigeria, including infrastructural inadequacies, competition, poor legal framework, and low levels of qualified workers. The author also describes opportunities for microfinance institutions, such as government interest and large potential customer population. Indeed, sustainability of MFIs remains an issue. Ogujiuba, Jumare, and Stiegler (2013) underscore the fact that many Nigerian entrepreneurs lack access to loans because they are poor. Part of this is due to the fact that financing very small enterprises is costly to administer, with low profitability. Some microfinance institutions have collapsed in Nigeria because of poor loan quality or high rates of default. The recommendation is to induce savings programs under microfinance institutions and adopt measures taken from successful programs in other countries.

Nigeria's political economy.

Nigeria's recent history has been marred with political and economic chaos, making it a challenging state to study. The country was plunged into civil war in 1967-70. Although the government is a democracy that has had a smooth change over between political parties since 1999, government officials have taken advantage of different ethnic divisions in order to obtain votes and separate themselves from other candidates. The elite use diversity of ethnicity and religion, as well as corruption and violence, as a tool to maintain their power. Poverty is a major problem. Nigeria is one of the poorest countries in the world (Bouchat 2013). GDP per capita actually dropped significantly between the 1970s and late 1990s, then increased again in the 2000s while most of the population remained in poverty. This illustrates the fact that the economy is extremely unequal. Poverty in Nigeria is caused by poor planning and refusal to invest in human development sectors like education, health, agriculture and infrastructure. This is compounded by corruption both in the public and private sectors.

The Nigerian economy relies heavily on natural resources for foreign exchange. Natural resources are centrally controlled, which is why the regions that produce the resources agitate for greater compensation. The elite exploit the natural resources for political or personal gain. Much public and private investment has gone into natural resource extraction, rather than for infrastructure construction, which is severely lacking. Some commercial banks refuse to lend because of the poor level of financial literacy which affects how borrowers manage their loans and subsequently leads to high non-performing loan ratios. As a result, many banks prefer to invest in government bonds and treasury bills.

Nigeria's financial sector experience challenges due to high credit risk, resulting in some bad debt within the banking system. In addition, many Nigerians do not deposit their funds in banks, so banks lack loanable funds. Corrupt civil servants, who might be able to supply banks with such funds, often look outside of the country for investment opportunities. What this means for the study of the informal economy and microfinance is that Nigeria is both a special case and an amalgamation of different experiences through time and geography due to its diversity and pockets of instability.

2.4 Theoretical Literature

Why do individuals work in the informal economy? Researchers have provided many reasons for the rise of informal economies. Such theories have different origins and may apply to different circumstances in various geographical locations. The four main theories include modernization, Neoliberalism, Structuralism, and political economy theories. Modernization theory views the informal economy as an underdeveloped economy, lacking in modernization of institutions (Geertz 1969). Neoliberal theory looks at the informal economy as arising from an economy with too many regulations and high taxes (De Soto 1989). In this case, the stringent policies generate additional costs to firms, making work outside of the formal sector look more attractive (Portes and Haller 2005). Structuralists view the informal economy as arising not only from excess labor supply or over-regulation, but from the capitalist structure itself due to the need to maintain competitiveness. Political economy theory explains the rise of the informal economy as due to poor state intervention and protection for workers (Castells and Portes 1989). Individuals may also become more motivated to work in the informal sector as they become disillusioned with formal institutions. This may be due to corruption or incompetence of formal institutions (Maloney 2004).

The context is somewhat different in Africa. First, the Neoliberal argument described above has come under attack, with critics asserting that it was the structural adjustment program put forth under Neoliberalism that led to layoffs and erosion of the social contract. Going further, Yusuff (2011) views all existing theories as insufficient in explaining the rise of the informal economy in Africa. He points out specific works that refute popular theories. For example, Hart's (1973) work in Ghana emphasized that the informal economy was not a state of underdevelopment, but simply another way of doing business. Hart also showed that those working in the informal sector were not condemned to poverty. The Neoliberal argument also came under attack, with critics asserting that it was the structural adjustment program put forth under Neoliberalism that led to layoffs and erosion of the social contract.

What is more, the argument that the informal sector provides an important source of work for women due to their restricted access to the formal sector is shown to be false for West Africa, where women have the right to control their incomes. Nor is the relationship between the formal and informal sector the same around the world, so that the argument that informal economies support the formal sector is different for Africa. Unlike other regions, African informal economies tend to have fewer forward linkages with the formal sector. This may be because they cannot meet the basic requirements of the formal sector (Osuagwu 2020, Meagher and Yunusa 1993).

3.0 Theoretical Framework

The structure of the informal sector in Nigeria could be best explained by the dual labor market theory; which separates the labor force into two parts: secondary labor market consisting of low wages and primary labor market with high wages and good working conditions (Ikeije, Akomolafe & Onuba, 2016). The dual labor market theory proposes that the labor market progresses from the secondary (informal) labor to primary (formal) labor as the economy improves (Gollin, 2008; Doeringer & Poire, 1980). On the other hand, the Structuralist theorists view the informal sector as a permanent feature of the formal economy in developing countries, which is integrated to the various sectors (Portes, Castells and Benton 1989; Osuagwu 2020). The Structuralists posit that informal labor in developing countries flow with the formal labor market through backward and forward linkages and mostly involved in peasant agriculture (Saint-Paul 1996; Medina, Jonelis and Cangul 2017).

On a broad scale microfinance theorist advance two categories of thought based on the social and economic benefit to recipients (Elahi and Danopoulos 2004). The social benefit relies more on the psychological incentives that accrues to the beneficiary. The economic theory on the other hand relies on the assumption that microfinance institutions are infant industries and as such needs to be protected from systemic macroeconomic shocks. However, the psychological theory differentiates microfinance entrepreneurs from the traditional money lenders, portrayed as "social consciousness driven people." Nonetheless, the economic perspective is based on the intermediation theory of banks as institutions who take deposits and give out loans to customers. In the microfinance scenario authorities are weary of the fact that the recipients fall in the low-income group and needs social protection. To this end, an intermediation approach need not be a true description of the relationship between participants in the microfinance scheme and the institutions. If microfinance banks are treated as financial institutions, then the firms must be guided by the economic theories of banking. This argument features in order to protect microfinance institutions from the vagaries of market forces and industry related factors.

If microfinance banks are treated as infant industries, their microlending business can be subsidized during their initial stages of operation, to the benefit of both the economy and the participants, who are predominantly low-income earners. This step would facilitate the growth of micro-enterprises and the same time support the lender to realize economies of scale and profitability in order to remain in business and the multiplier effect will engender economic growth and development.

4.0 Methodology

4.1 Source of Data

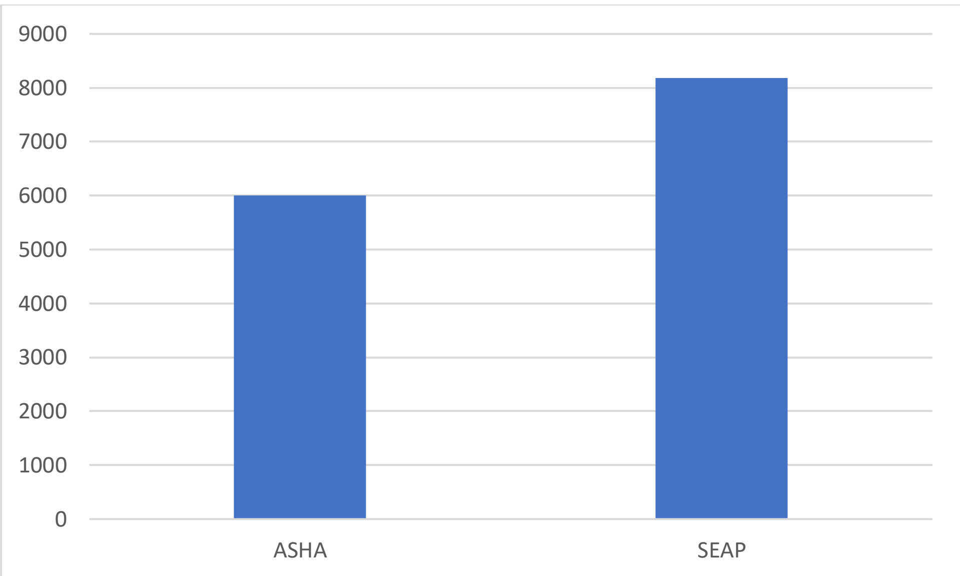
For our study, we implemented a survey through one microfinance institution and two microfinance banks in Nigeria: SEAP and ASHA MFB. The Self-Reliance Economic Advancement Programme (SEAP) nongovernmental Microfinance Institution began in 1998 and was officially registered in 2000. SEAP is aimed at improving socio-economic circumstances and capacity of the economically active poor. SEAP is headquartered in Ilorin, Kwara State but has over 287 branches nationwide with over 2 million members. Products include microcredit products for micro and small business owners, including group lending and savings programs.
These states include: Abia, Anambra, Bayelsa, Benue, Delta, Edo, Ekiti, Enugu, Imo, Kaduna, Kano Katsina, Kogi, Kwara, Lagos, Nasarawa, Niger, Ogun, Ondo, Osun, Oyo, Plateau, Rivers and Zamfara. Target clients include women, minorities (men and women) who do not have access to formal financial institutions to improve their economic status. Target customers are

often searched for and selected through the efforts of field officers, based on interactions and engagement. About 94% of SEAP's customers are in the informal sector of the economy.
SEAP MFI is poised to assist the poorest of the poor in the society as the mission of the organization is "To promote sustainable livelihood and to bridge developmental gap between rural and urban communities towards solid financial and economic empowerment."
A brief background of ASHA Microfinance Bank (MFB). ASHA MFB started in 2010 and currently holds a national operating MFB license. ASHA is a subsidiary under ASA, a large, global microfinance institution that provides credit for microenterprises. ASA uses weekly group meetings under a model of no joint liability. The concepts of cost effectiveness and graduation from the program play central roles in the organization.
ASHA serves 15 States in Nigeria, including Lagos, Oyo, Ogun, Osun, Kwara, Kogi, Nassarawa, Ondo, Edo, Anambra, Imo, Abuja, Kaduna, Kano, Benue, Abia. The area of our survey study for ASHA MFB is in Kaduna. The target market includes mainly women and minorities. The bank serves microenterprises at the bottom of the pyramid, with target customers' artisans, local farmers, traders, and small business owners. The institution uses the group lending model, which requires that the client form a group. Customers are selected within the business location and the bank conducts a simple KYC for credit check analysis. Most of the individuals work in the informal economy, and lower income is the main target, with an income range of USD$200-500.
We use survey data from individual surveys conducted from December 2019 through February 2020. Both ASHA and SEAP conducted a survey on each borrower during the three-month period. A total of 14,190 survey responses were collected: 8,181 from SEAP and 6,009 from ASHA. Descriptive statistics follow.

4.2 **Method of Analysis**

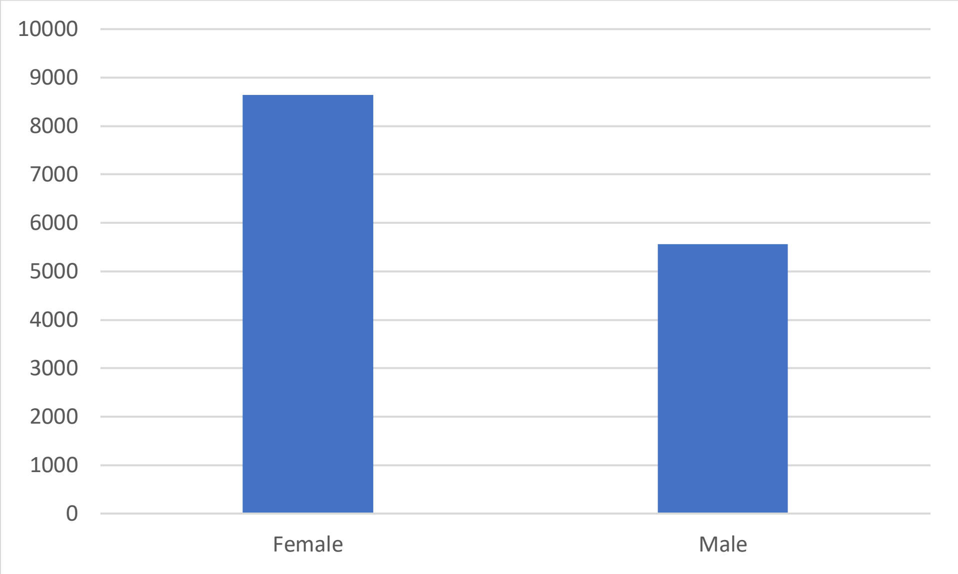
Descriptive Statistics

Figure 1: Distribution of borrowers by Association



There were 8,635 female borrowers and 5,555 male borrowers in the sample.

Figure 2: Distribution of borrowers by sex



Most of the borrowers (over half) were in the wholesale or retail trade industries, followed by transportation and agriculture. Smaller percentages of borrowers worked in the health, manufacturing, education, construction, real estate, mining, finance, and other sectors.

Figure 3: Distribution of borrowers by Occupation

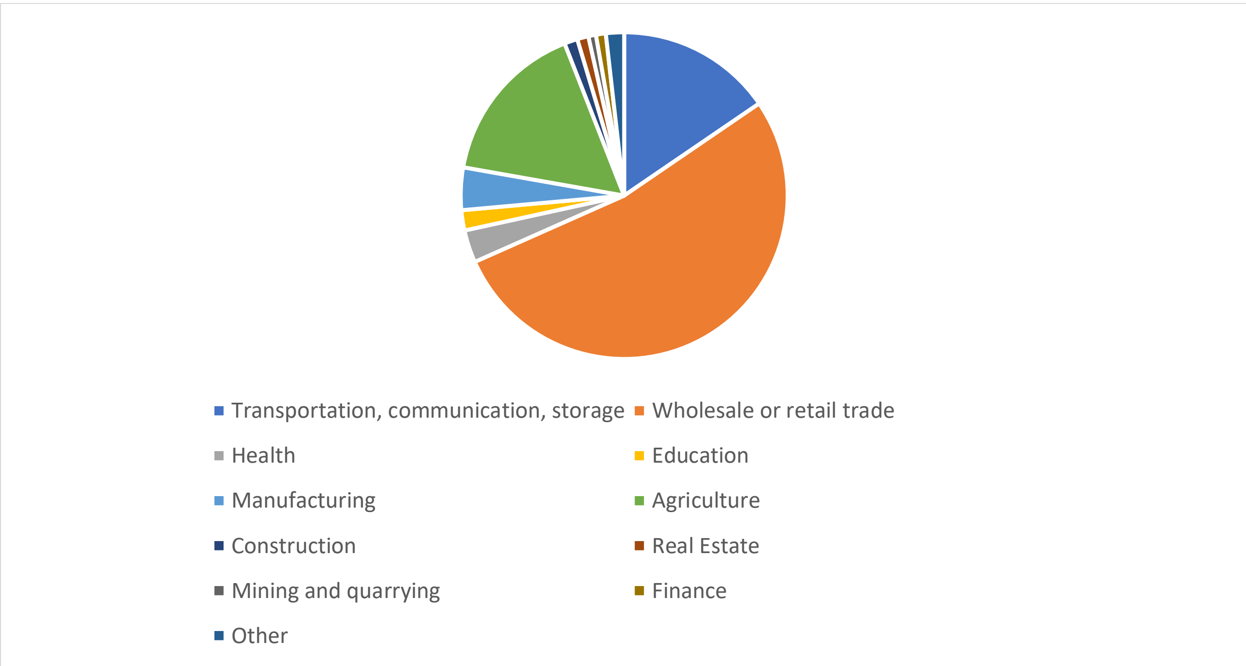
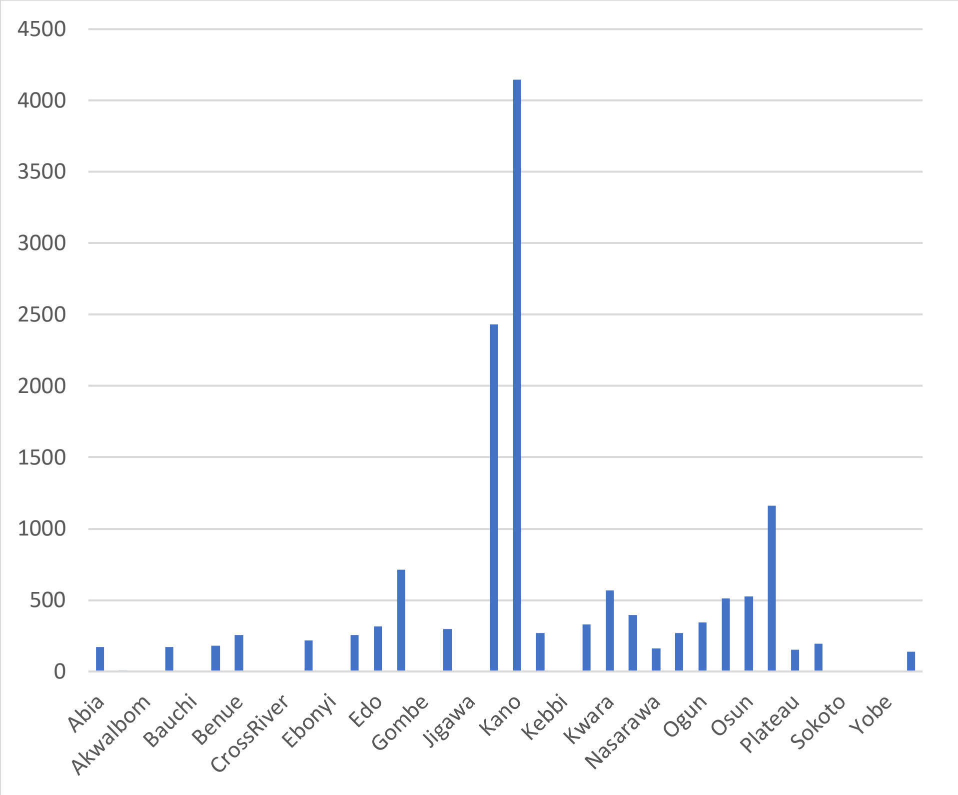


Figure 4: Distribution of borrowers by State



The average age range of the borrowers is 35-44, and the average number of employees is 1-5.

The average monthly income of business is ₦45,000-52,500. The average amount borrowed in the past month was ₦75,000-82,500, mainly from microfinance institutions. The average monthly household expenses were ₦22,500-30,000.

4.3 Model Specification

We apply an OLS regression. After ensuring OLS assumptions were met, we used the following model.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon \text{ ...... (Eq. 1)}$$

Where Y is the average monthly income scale, X_1 is how much was borrowed in the past month, X_2 is whether the borrower was in the wholesale or retail trade industry, X_3 was whether the borrower was in the finance industry, X_4 was how many employees work in the business, X_5 was whether the borrower was female, X_6 was whether the borrower was in the agriculture industry, and X_7 was whether the business was registered with the government.

In the second model, we use a different dependent variable, how much was borrowed in the past month, and slightly different independent variables, including monthly household expenses, whether the borrower was in the wholesale or retail trade industry, whether the borrower was female, whether the business was registered with the government, and whether the borrower was in the agriculture industry.

After ensuring OLS assumptions were met, we used the following model for the second regression.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \text{ .... (Eq. 2)}$$

5.1 Results

Table 1: Result of regression analysis for Eq. 1

Constant	.695*** (.100)
How much was borrowed in the past month	.561*** (.008)
Whether the borrower was in the wholesale or retail trade industry	.627*** (.034)
How many employees work in the business	.729*** (.036)
Whether the borrower was female	-.393*** (.031)
Whether the borrower was in the agriculture industry	.236*** (.045)
Whether the business was registered with the government	1.018*** (.044)
Whether the borrower was in the finance industry	.878*** (.147)

*** indicates significance at the 99% level

For the model in Eq. 1, the adjusted $R^2 = 36\%$.

From Table 1, we observe that changes in the dependent variable, average monthly income is significantly affected by all the explanatory variables at the 1% level, although R-squared is low at 36% indicating that the model is not a good fit. This situation may be due to the mixed method applied; qualitative responses were scaled and applied through the model. In all cases, the explanatory variables have a positive and significant relationship with the dependent variable, except whether the borrower was female, which has a negative relationship with the average monthly income of borrowers. For any female participant the average monthly income decreases by 0.36 units in comparison to their male counterparts. The data on how much was borrowed in the past month, how many employees work in the business, and average monthly income are scaled into tiers depending on the range of funds or workers.

Table 2: Results of regression of Eq. 2

Constant	7.732*** (.043)
Monthly household expenses	.608*** (.007)
Whether the borrower was in the wholesale or retail trade industry	-.227*** (.027)
Whether the borrower was female	-.538*** (.025)
Whether the borrower was in the agriculture industry	-.567*** (.036)

Whether the business was registered with the government	.076 (.032)

The result of Eq. 2 shows adjusted r^2 as 45%.

From Table 2, we observe the average amount borrowed per participant is affected strongly by monthly household expenses, while borrowing levels are lower if the borrower worked in the wholesale or retail trade or agriculture industries and if the borrower was female. Borrowing levels were not impacted by whether the business was informal or formal, which may indicate that microfinance institutions are not biased against or toward the informal sector. The average amount borrowed is 0.54 units less if the participant is a female and 0.23 units less when the borrower is in the wholesale or retail industry. Borrowers in the agriculture industry also borrow about 0.57 units less than their counterparts in other industries. Whether the business was registered or not has no significant effect on the average amount borrowed per participant.

5.2 Discussion of Results

The results in Tables 1 & 2 indicate that female participants do have a disadvantage in terms of borrowing and other financial indicators, which is in line with the findings of Ekpe, Mat, and Razak (2010). Nonetheless, microfinance is often recommended for women as a means of alleviating poverty. The fact is that due to family constraints female borrowers may not be inclined to making enormous profit out of their borrowing and this informs the skepticism of microfinance institutions in lending out more money to them. The male participants are business oriented and tend to borrow large sums of money.
Overall, the empirical evidence from this study supports the findings in Enimu et al. (2016) that the microfinance scheme improves the income and economic well-being of participants and in turn improves the economy.

Second, participation of the business in the informal sector impacted average monthly income positively but did not affect how much was borrowed in the past month. Usually, the informal sector has an average income that is lower than the formal sector, so our conclusion that presence in the informal sector actually boosted income is surprising, although Nigeria has a high percentage of informal workers who may pay lower fees and taxes than formal sector workers, which would boost national income in part. There also may be a slight preference among consumers for informal businesses, which would also boost informal sector income. This remains unknown but is potentially in line with Minard's theory that in West Africa, the informal economy is not a survival economy but an engine of innovation and economic development.

Finally, we also found a contradiction between the two models in terms of the effect of whether the borrower was in the agriculture or wholesale/retail trade industries. Presence in these industries negatively affects how much was borrowed in the past month, but positively impacts average monthly income. If agricultural or retail businesses have higher monthly income, they should be able to borrow more, unless there is high volatility and uncertainty in their industry.

What all of this means is that, despite the target goals of microfinance institutions to give women or farmers preference, this is not always happening within the sample. One explanation for the seeming gender bias may be that there is a selection bias of customers toward females, but a lending amount preference toward males, possibly for a reason that is not reflected in the data. Due to different results from different quantitative studies, it seems that a qualitative approach that includes myriad case studies and interviews is necessary for future research, in order to uncover the mechanisms through which individuals borrow through microfinance. Such studies should include an element covering the informal economy, since this is another important characteristic of microfinance borrower that has often been overlooked in previous research.

We would also suggest that borrower characteristics, location, level of urbanization, and local and national governance play a role in the effectiveness of microfinance. The microfinance institution itself can impact borrower effectiveness, since such institutions can provide training or advice on business or financial operations. In addition, some microfinance institutions have better government support or marketing programs, which may impact the types of borrowers they attract. Furthermore, the CBN has different funds which are available for MFBs with proven track records to borrow at low interest rates and on-lend to their customers with a small margin, these are part of the government policies and programs aimed at improving access to microfinance.

6.0 Conclusion

We can draw some conclusions from the regression results between the two models.

References

Enimu, Solomon, Igiri, Juliana and Achike, Anthonia I., (2016). Analysis of the Effects of Microfinance Banks Loans on the Livelihood of Small-Holder Farmers in Delta State, Nigeria. *Economic Affairs*, 61(3). 381-390.

Fapohunda, T. M., (2012). Women and the informal sector in Nigeria: Implications for development. *British Journal of Arts and Social Sciences* 4(1). 35-45

Ikeije, U. U., Akomolafe, L. & Onuba, C. O. (2016). Labour practices in the informal sector of Nigerian economy: A critical analysis. *Global Journal of Arts, Humanities and Social Sciences* 4(2), 6 – 14.

Khandakar, Elahi and Danopoulos, Constantine P. (2004). Microfinance and Third World Development: A Critical Analysis. Journal of Political and Military Sociology 32(1), 61-77.

Medina, Leandro; Andrew Jonelis and Mehmet Cangul (2017). *The Informal Economy in Sub-Saharan Africa: Size and Determinants*. IMF Working Paper, WP/17/156. International Monetary Fund, Washington DC.

Ogbuabor, J. E., & Malaolu, V. A., (2013). Size and causes of the informal sector of the Nigerian economy: Evidence from the Error Correction Mimic model. *Journal of Economics and Sustainable Development* 4(1), 85-103.

Osuagwu, E. S., and Olaifa, E. (2018). Effects of Oil Spills on Fish Production in the Niger Delta. *PLoS ONE* 13(10)

Osuagwu, Eze S. (2020). Empirical Evidence of a Long-Run Relationship Between Agriculture and Manufacturing Industry Output in Nigeria. *SAGE Open* 10(1), 1-12.

Prior, F. and Mora T. (2019). Quantitative Study on the Impact of Branchless Banking on Microfinance Institutions. Annals of Public and Cooperative Economics, 90(4), 641-668.