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# FNGOs and microfinance delivery: The institutional logic perspective

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**Executive Summary**

From an institutional theory perspective, this study investigates the combined impact of financial capital (microcredit) and human capital development (entrepreneurship training) delivered by Financial Non-Governmental Organisations (FNGOs) on the performance of Micro and Small Enterprises (MSEs) in Ghana. Adopting a multiple linear regression analysis, the study uses primary data collected from 506 Ghanaian MSEs who are engaged in various economic activities.

The results of this study show that the combined delivery of financial and human capital development by FNGOs has a significant impact on MSE performance. Secondly, the social welfare logic adopted by FNGOs seems to be responsive to the needs and growth of MSEs in Ghana. However, the cost of microcredit remains a drawback to the performance of MSEs in Ghana. Also, employment decisions by MSEs might not be based solely on the profitability and growth of the enterprises. However, other socially-oriented reasons are responsible.

*Keywords: FNGOs, Ghana, Institutional logic, MSEs, Microcredit*

**Paper Type:** Full paper

**List of Abbreviations**
FNGOs- Financial Non-Governmental Organisations
MSE-Micro and Small Enterprises
MFIs-Microfinance Institutions
ASSFIN-Association of Financial Non-Governmental Organisation

**Word Count: 7100**

**Introduction**

The global microfinance landscape currently includes both local and international Financial Non-Governmental Organisations (FNGOs) delivering financial services to Micro and Small Enterprises (MSEs) as a support to the entrepreneurial development of the poor and the poorest (Atiase *et al*., 2019). In pursuing their ''double'' bottom line objectives of financial performance and poverty reduction, these FNGOs operate with a social welfare institutional logic in the delivery of microcredit and other related services such as entrepreneurship training to MSEs (Battilana and Dorado, 2010; Xiang *et al*. 2014; Rajendran and Raya, 2011). In Ghana, which is the context for this study, 43 FNGOs including Universal Capital (FNGO), ASrud Ghana, AIDEZ Small Projects International and Grameen Ghana provide financial services currently mostly in rural enterprise development programmes which supports pro-poor growth across various industries (ASSFIN, 2017).

The activities of FNGOS is a global phenomenon with a strong presence in Africa. Globally, evidence shows that 45% of microfinance institutions (MFIs) operating in developing countries are FNGOs. These FNGOs serve about 51% of all microfinance clients of which 73% are female borrowers (Xiang *et al*., 2014). Similarly, in the context of Africa, Moseley and Rock (2004) revealed that FNGO-based lending schemes date as far back as the 20th century notably in providing loans for small business development and poverty reduction. FNGOs are therefore known to be the major poverty reduction focussed institutions in Africa considering that they deliver dynamic pro-poor outreach services across various sectors of the African economy. For instance, K-REP and Care Zimbabwe are noted to have provided an extensive outreach service in Kenya and Zimbabwe respectively in supporting MSE growth. Similarly, the Small Enterprise Foundation in South Africa has been identified as one of the major FNGOs which have supported the growth of rural MSEs with their solidarity group lending schemes (Moseley and Rock, 2004). As indicated earlier, the focus of FNGOs and their operational activities in Africa is poverty reduction hence their visibility mostly in African rural areas where poverty remains persistent and economic activities are at its lowest levels. Mersland and Strøm (2008) argued that FNGOs focus on the depth of poverty reduction (client's poverty levels) rather than the breadth of it (the number of clients served) hence their social welfare institutional logic in delivering microcredit and entrepreneurship training to MSEs.

In pursuit of their welfare goals, FNGOs working in Ghana need to legitimise their operations which demands conformity to various coercive, normative and mimetic institutions without which the acceptability of their services to the poor could be questionable (DiMaggio and Powell, 1983; Sambharya and Musteen, 2014). However, in conforming to these institutions, and in view of the current economic, political and governance challenges facing Ghana, FNGOs are likely to be influenced to adopt strict commercial approaches which may lead to mission drift (Copestake, 2007; Chahine and Tannir, 2010; Mersland and Strøm, 2010). Most often than not, such a tendency would lead to serving the non-poor rather than the poor with microfinance products (Serrano-Cinca and Gutiérrez-Nieto, 2014).

Despite the unique role of FNGOs in providing microfinance services with their social welfare logic in Ghana, there is a gap in the literature of their impact on the performance of MSEs (Amoako and Matlay, 2015). As much as the authors are aware, this is one of the few studies which has focused on examining FNGOs and their delivery Of microcredit and entrepreneurship training to MSEs in Ghana. This study has two main contributions to offer. Firstly, this study aims at contributing to the entrepreneurial finance literature by highlighting the role of FNGOs in the provision of microcredit and entrepreneurship training to the poor in support of their entrepreneurial development in Ghana. This study, therefore, highlights the importance of the welfarist approach to microfinance delivery as opposed to the commercial approach. Secondly, this study also highlights the performance measurement of

MSEs in the areas of employment generation, sales and profitability growth. Again, this is one of the few studies in the Ghanaian context which seeks to assess the performance of MSEs in the aforementioned dimensions. The objective of this study therefore is to examine the impact of FNGO services with a social welfare logic on the performance of MSEs.

## Background

*The institutional logic of microfinance institutions*

The microfinance literature highlights a multitude of actors with different types of institutional logic providing financial services to the poor. However, there seems to be a mess in classifying these logics (IM and Sun, 2015; Radhakrishnan, 2015). The institutional logic perspective of MFIs explains how organisational action and focus is shaped by a shared belief about how microfinance should be delivered to the poor and the poorest of societies (Cobb *et al*. 2016). Thus, the institutional logic adopted by an MFI creates expectations on the MFI within a given context. Shahriar *et al*. (2016) argue that the institutional logic an MFI adopts determines its focus, services and products that it offers to the poor. Invariably, researchers have consistently traced the activities, strategies, actions, and internal operations of MFIs back to their adopted institutional logic (Cobb *et al*. 2016). Typically, three main institutional logics are present in the microfinance literature. IM and Sun (2015) identify the commercial, the social welfare and the hybrid logic.

The social welfare logic perspective of MFIs argues that the poor and poverty reduction should be the focus of MFIs rather than profitability. This logic sees microfinance as a social service which is solely aimed at poverty reduction (Brau and Woller, 2004). This school of thought, therefore, argues that if MFIs focus on profitability, the tendency to lose focus on the poor and the very poor is high which eventually leads to mission drift (Copestake, 2007; Shahriar *et al*.,2016; Serrano-Cinca and Gutiérrez-Nieto, 2014). IM and Sun (2015) also pointed out that, MFIs which follow the social welfare logic tend to tolerate a moderate profit while focussing on serving the poor with the right products and services. From this perspective, the social welfare logic opines that institutional sustainability is very important, however, it is unethical and compromising to sacrifice the depth of outreach to the poor to achieve such acclaimed financial viability. It is therefore suggested that subsidies and donations upon which microfinance activities has been built over the years can still make an institution sustainable without necessarily focusing on profitability (Brau and Woller, 2004).

On the other hand, the commercial logic sees microfinance as a commercial activity which is intended to generate profit for the shareholders of the MFI (IM and Sun, 2015). The observation currently is that many MFIs globally have shifted their focus from their social objectives to adopt a market-based approach (Allison *et al*., 2015; D' Espallier *et.al*, 2017). The proponents of the commercial logic argue that an MFI's financial viability through profitability is a pre-requisite to effective outreach to the poor. According to Woller and Woodworth (1999), MFIs should be able to cover operating and financing costs through programme revenues rather than through donations and subsidies as proposed by the proponents of the social welfare logic. This approach emphasizes the fact that raising the cost of microfinance services does not reduce the demand for it (Copestake, 2007). More so, it is only sustainable programs that can make a real impact on poverty but not subsidized and donor-dependent ones. Copestake *et.al* (2005) again pointed out that profitability is a means of achieving sustainability of microfinance programmes and it is a prerequisite to achieving the depth of outreach required of MFIs in developing countries.

Finally, MFIs adopting the hybrid institutional logic combines both the commercial and the social welfare logics in the delivery of microfinance services to the poor and the poorest of society. However, it has been noted that a hybrid of these logics comes with its attendant challenges of balancing the mission of outreach to the poor and the quest to be profitable (Battilana and Dorado, 2010; Besharov and Smith, 2014; de Haan and Lakwob, 2010). Therefore, MFIs in their pursuit of serving the needs of the poor can choose to follow any of the above-mentioned logics (Ayele, 2015; IM and Sun, 2015). However, the choice of any of the above institutional logics affects the product design and the delivery of microfinance services to the entrepreneurial poor.

From the above discussion, it is arguable that the proponents of both the social welfare and the commercial logics have different views on the methodology and focus that should be adopted in this drive to extend financial services to the poor. Morduch (2000:617) refers to this debate as the 'microfinance schism' and Woller et.al (1999:29) has described the situation as 'two nations divided by a common language'. However, Ayele (2015) pointed out that, there exist a trade-off between the two debates but the nature, extent and the implications of the trade-off are not resolved. This implies that the way the debate is resolved will have a significant impact on microfinance delivery in terms of its guiding principles, objectives, clients and poverty reduction (Woller et.al,1999).

**Financial services delivery and MSE growth in Ghana**

Since independence in 1957, successive Ghanaian governments have tried to make financial services accessible to MSEs for the purposes of job creation and poverty reduction. However, current observations indicate that access to financial capital remains difficult to MSEs in Ghana with its rising cost and demand for securities which are usually out of reach for MSEs (Allen, Otchere, and Senbet, 2011; Doan and Oduro, 2012). Specifically, issues of the availability of suitable credit products, the effectiveness of service delivery and loan contracts, adequacy of loans granted as well as the cost of credit facilities are challenges that are still associated with the Ghanaian financial system (Egyir, 2010). The most recent population and housing census which was carried out in 2000, recounted that about 80% of Ghanaians work in the informal sector and largely these individuals lack access to any form of formal financial services. According to Akudugu (2013), the Ghanaian financial system is faced with two main challenges. Firstly, the system lacks the capacity to fully integrate the informal sector into the formal financial system due to limited financial resources. Secondly, the type of rules and regulations governing the financial sector seems to be unfavourable to the informal sector hence the current gap which exists between the formal and the informal sectors.

Even though some improvement has been observed over the years, accessibility and cost of financial services remain a major drawback to the growth and expansion of MSEs. Thus; the integration of the MSE sector into the formal financial system for a total financially inclusiveness has become a difficult process (Lash, 2008; Haag and Henschel, 2016). Due to the difficulties of accessing formal financial services from the Commercial Banks in Ghana, microcredit from MFIs has become the necessary choice for many MSEs. In fact, almost all Ghanaian Governments across different regimes have used microcredit through its parastatal agencies and local governments to support poverty reduction efforts (Addae-Korankye, 2012). The microfinance sector in Ghana which includes FNGOs and other types of organisations providing microcredit to the poor are regulated by the Central Bank of Ghana. Three main sources of regulation in Ghana namely the Non-Bank Financial Institutions Act, 2008 (Act 744), the Bank of Ghana Act, 2002 (Act 612) and the Banking Act, 2004 (Act 673)

provides the regulatory framework for all MFIs operating in Ghana (Bank of Ghana, 2007; Bank of Ghana, 2015).

## *The social welfare logic of FNGOs in Ghana*

In achieving their social objectives which includes poverty reduction for microfinance clients, it has been observed that FNGOs in Ghana adopt the social welfare institutional logic with a very strong social mission (IM and Sun, 2015; Mersland and Strøm, 2008). Such a sense of purpose and dynamism exhibited in FNGO outreach activities, the quality of portfolios and various impact assessments conducted till date shows that they have become the microfinance provider of choice for many poor people who are excluded from the formal financial systems in Ghana. Through FNGOs, MSEs in Ghana can access adequate microcredit which is moderately cheaper, accessible, and adequate, with flexible repayment terms than other commercially oriented MFIs (Habib and Jubb, 2013). In addition to microcredit, FNGOs also develop the managerial skills of MSE owners by providing entrepreneurship training. This is because, as pointed out by Newman *et al.* (2014) microfinance clients do not only need microcredit to be successful in their entrepreneurial endeavours but rather the provision of managerial capability is equally important. Therefore, the role of FNGOs in poverty reduction through the provision of flexible microcredit and other related financial services such as entrepreneurship training, savings, microinsurance and money transfer services to MSEs has been noted to contribute largely to poverty reduction (Rajendran and Raya, 2011).

FNGOs being voluntary in nature and flexible in their operation are committed to uplifting the poor through the use of both individual and group lending methods (Moseley and Rock, 2004). FNGOs are also independent of direct government control, quick in decision making and are strongly driven by social values (Rajendran and Raya, 2011). Invariably, the focus of FNGO lending activities is on women who are engaged in various economic activities. In some other cases, FNGOs are also effective in extending microcredit to the poor in conflict-affected areas to promote income generation activities (Morais and Ahmad, 2011).

Khavul (2010), therefore, indicated that since FNGOs are non-profit oriented and are driven by social mission, they are likely to be more sustainable in their drive towards poverty reduction than the commercially-oriented microfinance institutions. The foregoing discussion points to the fact that the role of FNGOs in contributing to pro-poor growth in Ghana through the provision of microcredit and entrepreneurship training could be a great input into the Ghanaian economic development efforts. This study is organised into 6 sections including the introduction. Section 2 presents a discussion of the theory and hypothesis development. Section 3 discusses the research context and methodology. Whilst section 4 presents the statistical analysis and results, section 5 presents the findings of the study. Finally, section 6 draws a conclusion to the study.

## Theory and hypotheses development

### *Institutional Theory and the operation of FNGOs in Ghana*

Over the past several decades, the institutional theory has been used in entrepreneurship research to examine how enterprises evolve in pursuit of their organisational goals and the nature of the various environmental factors which affects their growth (North, 1990; Scott,1992; Sambharya and Musteen, 2014). Similarly, FNGOs in Ghana are influenced by several institutional factors particularly when it comes to pursuing their goal of delivering financial services to the poor. DiMaggio and Powell (1983) decomposed the institutional

notion into three dimensions, namely *coercive*, *normative*, and *mimetic isomorphic institutions.* These isomorphic institutions are discussed below in the Ghanaian context.


### *Coercive Isomorphic Institution*

In delivering financial services to MSEs in Ghana, FNGOs are influenced by coercive institutions which are regulatory in nature. Coercive isomorphic institutions bring both formal and informal pressures on FNGOs to change behaviour and structures in conformity to societal expectations (King *et al*. 2015; McGaughey *et al* 2016; Smith *et al*. 2016). Usually, such conformity is expected to acquire the legitimacy for their operation and outreach services (King *et al*.,2015; Trapczynski and Banalieva, 2016). Legitimacy refers to the perception of an organisation's actions as acceptable, proper and appropriate based on a well defined regulatory framework in a country (McQuarrie *et al.*, 2013; Deephouse *et al.* 2016). FNGOs in Ghana particularly the foreign ones such as World Vision International, and Opportunity International, therefore need such legitimisation processes in order to gain acceptance. Fainshmidta *et al*. (2016) argued that state institutions, the quality of human capital, available social capital and corporate governance institutions may have an important impact on the performance of FNGOs in delivering financial services to MSEs through their social welfare logic. Weerawardena *et al.* (2010) also argued that, since FNGOs operate with social welfare logic in achieving their double bottom objectives, it is important they conform to various regulatory institutions to gain legitimacy for their operations. Some of the coercive institutions in Ghana include the Central Bank of Ghana, the Association of Financial FNGOs and other financial regulatory institutions which seek to coerce FNGOs to conform to their social mission in delivering value to MSEs.


### *Normative Isomorphic Institution*

In the Ghanaian financial environment, FNGOs are also influenced by a host of normative isomorphic institutions which seek to enforce socially acceptable behaviours that are driven by societal morals, values and obligations (Alexander, 2012). Alexander (2012) again argued that normative institutions do not only define goals but rather they specify appropriate ways to pursue such goals to meet societal expectations. This implies that all value systems have their own rules of conformity. The elements of normative institutions may also include trade associations and professional associations that can use social obligation requirements to induce certain desirable behaviours in FNGOs for the purposes of conformity (Kshetri, 2010).
Kshetri (2010) indicated that, for FNGOs to be successful in executing their socially-oriented financial services, they need to take into consideration the values and the normative framework which exists in a country. The normative isomorphic institutions refer to the type of external pressure which is used to induce conformity to professional standards by peer networks and civil society. Thus; FNGOs in Ghana are expected to gain legitimacy by conforming to relevant norms, values and beliefs which are usually exerted by various peer groups (Mizruchi and Fein, 1999; McQuarrie *et al.* 2013). These normative institutions also refer to societal structures, practices, and standards which influences the manner in which FNGOs deliver their financial services to MSEs in Ghana (Follesdal, 2009; Serviere, 2010). Therefore, it is important FNGO practices are consistent with the value systems and national culture which forms the foundation of all business practices in Ghana.

*Mimetic Isomorphic Institutions*

In the Ghanaian financial services environment, FNGOs are influenced by mimetic isomorphic institutions in their attempt to adhere, adopt and mimic external values, culture, technology and operational frameworks which may be external and foreign to the FNGO. However, the adoption of these external values and frameworks has the potential to influence the structures, processes, the focus of operation and values of FNGOs (Mizruchi and Fein, 1999). DiMaggio and Powell (1983) indicated that FNGOs are likely to mimic or imitate other organisations which they come into contact with. Thus; FNGOs in their attempt to provide financial services to MSEs in Ghana are likely to be influenced if they mimic and model themselves after similar organisations (King *et al*. ,2015). According to Meyer and Rowan (1977), mimetic changes occur when organisations import rules and practices which may not couple properly with internal structures and may cause a wide internal variation in organisational behaviour. Therefore, DiMaggio and Powell (1983) alerted that, the goals of an organisation should be very clear, focused, and unambiguous to prevent the wrong adoption of external rules, values and practices.

The general framework of this theory has implications for the operation of FNGOs in Ghana. In the provision of both microcredit and entrepreneurship training to MSEs, FNGOs could adopt and adapt to various strategies due to experiences from various institutional networks, uncertainties in the Ghanaian economic, political or governance factors as well as uncertainties relating to the cost of funds and changes in various financial regulations. More importantly, in the pursuance of their social welfare objectives in serving MSEs, FNGOs could also be tempted to adopt various commercial approaches to the delivery of microcredit and entrepreneurship training which may undermine their poverty reduction mission (Chahine and Tannir, 2010).

*The impact of microcredit factors on the performance of MSEs*

Microcredit has become the major sources of funding for MSEs in Ghana. This is the case because, Ghanaian MSEs are often faced with peculiar challenges such as information asymmetry, lack of credit history, inability to support loan applications with the required collateral and poor business structure which renders them less attractive to access credit from commercial banks (Lash, 2008; Mahmood *et al*. 2014; Haag and Henschel, 2016). Therefore, FNGOs remain one of the major sources of funding for MSEs in Ghana without which it would be difficult for MSEs to have the needed financial capital to support their operational activities (Giné and Townsend, 2004; Ahlin and Jiang, 2008; Guha and Chowdhury, 2013; Baland *et al*., 2013).  Usually, microcredit received from FNGOs is used for business expansion purposes since most MFIs are often reluctant to finance start-up businesses due to the inherent risk involved (Kuzilwa, 2005). Bastiéa *et al*. (2016) indicated that MSEs' access to microcredit promotes their growth in terms of employment generation, sales growth and profitability growth. More so, the availability of microcredit to MSEs influences their business decisions making processes and expansion drive (Guha and Chowdhury, 2013). However, the irony is, MSEs' access to microcredit is most often than not influenced by various factors such as the cost of credit, flexibility of repayment methods, loan amount adequacy issues and other accessibility challenges (Abor and Quartey, 2010; Fatoki, 2011; Atiase *et al*. 2018). Based on the above discussion and evidence in the literature, the study hypothesised as follows:

***H₁****: Financial capital is positively related to the performance of MSEs.*

***The impact of entrepreneurship training factors on the performance of MSEs***

The acute lack of managerial capital in terms of experience, knowledge, and skills on the part of MSE owners to manage their enterprises successfully remains one of the challenges facing the growth of MSEs in Ghana (Macht and Robinson, 2009; Abor and Quartey, 2010; Fatoki, 2011). Over the years, the entrepreneurship literature in line with the thinking of Yunus (1999) of the Grameen Bank portrays financial resources to be the major constraint to microenterprise development. However, current research point to the fact that human capital development through the provision of entrepreneurship training and other skill acquisition programmes can improve microenterprise performance in various dimensions (Raven and Le, 2015). Newman *et al.* (2014) argued that MSEs do not only need financial capital to be successful, but also the development of the human capital base of MSEs is very essential for their success. Chowdhury (2009) therefore asserted that it is not just the issuance of loans to the poor and their MSEs that brings the solution to poverty, but rather the poor is expected to have entrepreneurial skills and creativity to succeed in managing their venture. Entrepreneurship training refers in this study as human capital development is the process of equipping MSE owners with the requisite managerial knowledge in anticipation of having an impact on the performance of the enterprise (Dilani *et al.*, 2007). Newman *et al.* (2014) noted that entrepreneurship training can be diverse ranging from a single consultation to a long training which can be individually tailored or group-based, focusing on providing financial education, business management skills, marketing skills, accounting knowledge, or even vocational skills. Such training is expected to cause a change in the skills, knowledge and the attitude of MSE owners. The various indicators of MSE growth such as employment, sales and profitability are therefore known to be influenced by the quality of entrepreneurship training received by MSE owners (Huang, 2001; Raven and Le, 2015). Based on the above discussion and evidence in the literature, the study hypothesised as follows:

***H₂****: The quality of the human capital development in the MSE is positively related to performance*

From the above discussion, this study proposes a conceptual framework regarding microcredit and entrepreneurship training as constructs and the performance of MSEs in Ghana as shown in Figure1 below.
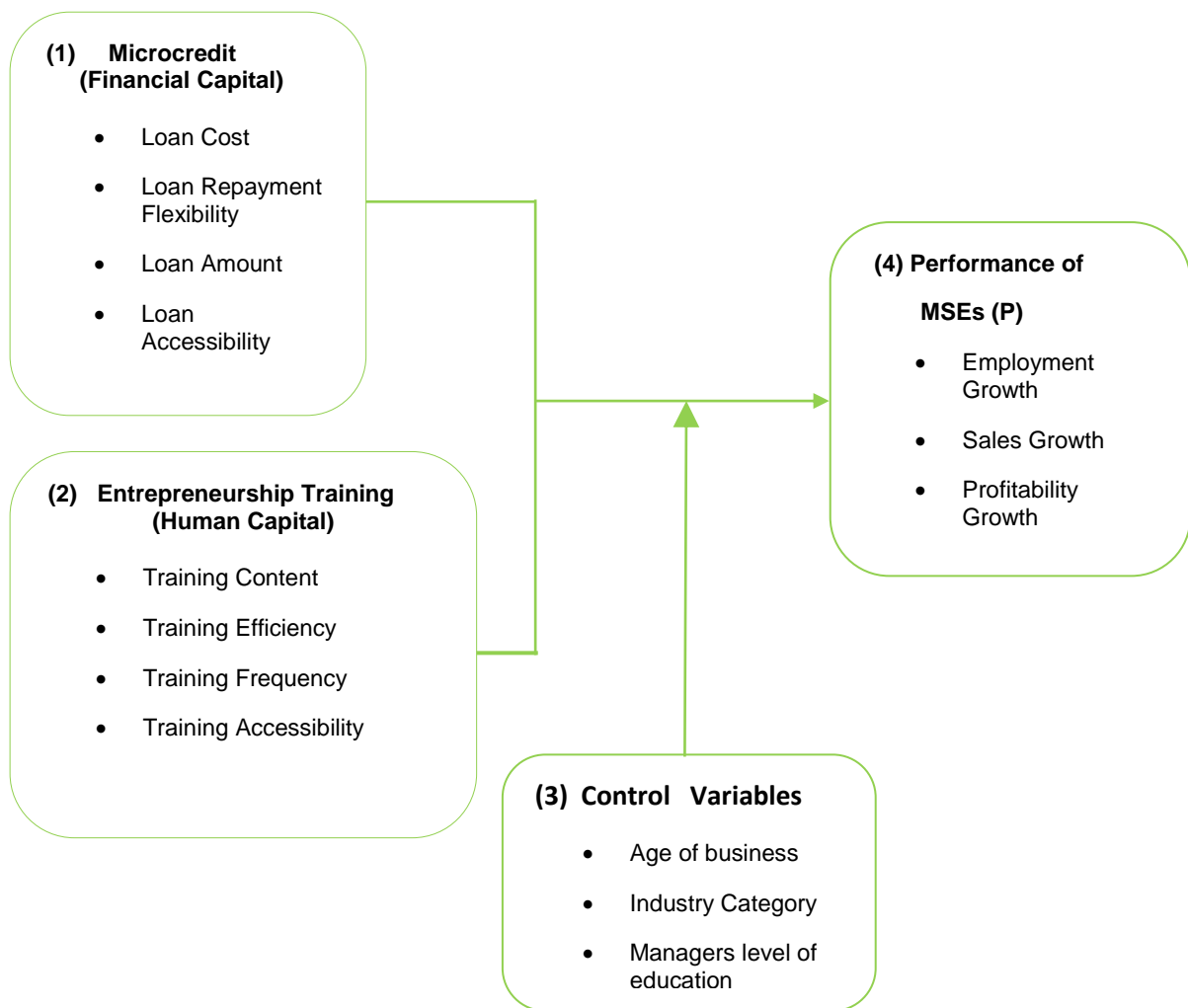
**Figure I**: A hypothesised model for the impact of microcredit and entrepreneurship training on MSE performance

## Research context and methodology

*Measuring the performance of MSEs*

Measuring the performance of MSEs remains a complex challenge due to the lack of consensus on the measurement tools to be used. Raymond *et al*. (2011) documented two broad approaches to MSE performance measurement namely the objective and subjective approaches. The objective measurement deals with the use of parameters such as profitability, competitiveness, efficiency and productivity (Blackburn *et al*., 2013). On the other hand, MSE performance could also be measured using a subjective approach where benchmarks such as the satisfaction of stakeholders, quality of community support, coherence and quality of human resources are engaged (Le and Raven, 2015). However, it has been suggested that the performance measurement of MSEs should be multidimensional in nature consisting of financial indicators such as profitability growth, sales growth, market share, returns on equity, and non-financial indicators such as the overall satisfaction of owners, employment

growth, customer satisfaction, employee satisfaction, customer loyalty, and brand awareness (Storey,1994; Fatoki, 2011; Blackburn *et al*., 2013; Le and Raven, 2015).

This research involving the microcredit clients of FNGOs has been conducted in the context of Ghana. For the purposes of regulation and monitoring by the Central Bank of Ghana, FNGOs are classified either as tier II or III institutions with variations in their minimum capital, the focus of activity and operational zone (Bank of Ghana, 2015). Whiles tier II FNGOs are deposit-taking, tier III FNGOs are supposed to depend mainly on the contributions from its founders and can raise funds from the capital market. FNGOs in Ghana usually adopt group lending methodology popularly known as the Trust Bank system which is seen as an effective strategy in delivering both microcredit and entrepreneurship training to the poor (Permanyer, 2014). Typically, a Trust Bank consists of 10-20 borrowers who are taken through a series of business training programmes before loan disbursement. Average loan size ranges between $100 and $500 with a repayment period spanning between 4 to 6 months with an average interest rate of 6% per month (Ganle *et al*. 2015). For the purposes of repayment flexibility, borrowers are usually given a minimum of one month moratorium to commence repayment.

### *Sample and data collection procedure*

This study adopts a stratified random sampling technique to investigate MSEs which are financed by FNGOs in Ghana. Four main strata were identified based on the fact that four FNGOs were involved in this study. This technique was also adopted because the researchers wanted to engage various stratum of industries financed by FNGOs. Based on the various strata identified, 720 MSEs representing clients of 4 FNGOs were sampled in March 2017. In April 2017, a paper-based questionnaire was sent to be completed by the 720 MSE owners. At the start of the survey, the total population and sample frame was 2,953 and 1,251 respectively. Out of the 720 questionnaires sent out, 506 fully completed questionnaires were retrieved which generated a response rate of 70.2%. The survey generated a high response rate because the FNGOs providing financial services to these MSEs were mainly engaged in group lending methodology of which weekly group meetings were arranged. Therefore, the researchers were able to have access to the MSE owners during their various group meetings within a period of one month. Table I presents the profile of the sampled MSEs which are found in the agricultural, construction, hotels and restaurant, transport and distribution, general trading, general services and education sectors of the Ghanaian economy. General services represent business activities such as barber shops, hair salons, shoe repairs, communication services and such likes. General trading represents the sale of items such as foodstuffs, water, and firewood. Construction category represents the manufacturing of building blocks, the sale of cement and other building materials. Transport and distribution category represents taxi owners and commercial drivers. Hotels and restaurant category represent guest houses and food services. The education category represents private basic schools only.

**Table I**: Profile of sampled MSEs

| Demographic Variables | Frequency | % |
|---|---|---|
| Agriculture | 5 | 1 |
| Construction | 10 | 2 |
| Hotels and Restaurants | 22 | 4.0 |
| Transport and distribution | 98 | 19.4 |
| General Trading | 185 | 36.6 |
| General Services | 178 | 35.2 |
| Education | 8 | 1.6 |
| **Total** | **100** | **100** |
| | | |
| **Age of Business** | | |
| 0-5yrs | 21 | 4.1 |
| 6-10yrs | 75 | 14.9 |
| 11-15yrs | 307 | 60.7 |
| 16yrs+ | 103 | 20.4 |
| **Total** | **506** | **100** |

## Constructs and Measures

### Dependent variables

Following Storey (1994), Fatoki (2011) and Blackburn *et al*. (2013), we design a three-factor variable namely *employment, sales* and *profitability growth* to measure the performance of MSEs. Based on the above, the authors designed and captured real employment, sales and profitability data from the sampled MSEs for a period of five years (2011-2015). The five-year data is then aggregated whereby the average growth is used in the regression analysis (see (Singh *et al*., 2018).

### Independent variables

In this study, 8 independent variables representing two main constructs namely financial capital (microcredit) and human capital (entrepreneurship training) have been used. Firstly, following three main studies namely, Angelucci *et al*. (2015), Kistruck *et al*. (2015) and Mahmood and Rosli (2013), the authors designed four main variables namely *loan cost, the flexibility of loan repayment method, loan amount and loan accessibility* to measure the microcredit construct. A total of 12 items were also used to measure the microcredit construct. Secondly, based on the studies of Be´chard and Toulouse (1998) and Rauch *et al*. (2005) a four-factor variable namely *training content*, *training efficiency, training frequency,* and *training accessibility* were designed to measure the entrepreneurship training construct. Similarly, a total of 23 items were used to measure the entrepreneurship training construct. All variables were measured on a Likert scale anchored by strongly disagree (1) and strongly agree (5) (See Appendix 1 for details).

### Control variables

Apart from financial capital and human capital development issues which have been investigated in this study, the performance of MSEs in Ghana could be influenced by a host of other factors. Cooper *et al*. (1994) argue that factors such as 'educational background of the MSE owner, gender of the MSE owner, the available management and industry-specific knowledge within the management team, the age of the MSE, access to both domestic and

international markets as well as the industry category which the MSE belongs do influence the performance of MSEs.  Based on the above, the study controlled for the gender of the MSE owner, owner's level of education, industry category and business age. We employed a dummy variable for gender coded as 1(male) and 0 (female). Seven industry sectors were identified *(agriculture, construction, hotels and restaurants, transport and distribution, general trading, education and general Services)*. Dummy variables were used in the study to represent sectors. For example, 1 and 0 were used to represent manufacturing and non-manufacturing sector respectively and the same coding was applied to other industries. The manager's educational level was measured using five categories (*1.no formal education, 2.primary school education, 3.secondary school education, 4. undergraduate degree and 5.postgraduate degree)*. Finally, business age was expressed in terms of the number of years since the establishment of the MSE.

## *Model specification*

To test the hypotheses, a model was constructed to examine the impact of financial capital and human capital on the performance of MSEs.

Employment Growth = $\alpha + \beta_1 GEN + \beta_2 EDU + \beta_3 IND + \beta_4 AGE + \beta_5 LOFLEX + \beta_6 LOCOS + \beta_7 LOAM + \beta_8 LOACC + \beta_9 ETCON + \beta_{10} ETEF + \beta_{11} FREET + \beta_{12} ACCET + \varepsilon$

Sales Growth= $\alpha + \beta_1 GEN + \beta_2 EDU + \beta_3 IND + \beta_4 AGE + \beta_5 LOFLEX + \beta_6 LOCOS + \beta_7 LOAM + \beta_8 LOACC + \beta_9 ETCON + \beta_{10} ETEF + \beta_{11} FREET + \beta_{12} ACCET + \varepsilon$

Profitability growth = $\alpha + \beta_1 GEN + \beta_2 EDU + \beta_3 IND + \beta_4 AGE + \beta_5 LOFLEX + \beta_6 LOCOS + \beta_7 LOAM + \beta_8 LOACC + \beta_9 ETCON + \beta_{10} ETEF + \beta_{11} FREET + \beta_{12} ACCET + \varepsilon$

Where: $\alpha$ is the constant term, $\beta_1$ to $\beta_4$ = regression coefficients, GEN= gender, EDU= manager's level of education, IND= industry category, AGE= age of business, LOFLEX= loan flexibility, LOCOS= loan cost, LOAM= loan amount, LOACC= loan accessibility, ETCON= training content, ETEFF= training efficiency, FREET= Training frequency, ACCET= training accessibility.

## *Exploratory factor analysis*

Following Anderson and Gerbing (1988), a principal component analysis with varimax rotation was executed to examine the factorial structure of both microcredit and entrepreneurship training factors. From the process, no dominant factor emerged to explain a significant variance, hence common method bias is not a major concern for this study. It is suggested that factors with low factor loadings (< 0.50 for new models, < 0.60 for existing models should be deleted first and data recalculated until a higher value of 0.7 and above is achieved (Hancock and Mueller, 2010; Sidek and Mohamad, 2014). Factors with Eigenvalue less than one were considered insignificant and were excluded. Items were only considered to have loaded properly if they had a loading of 0.200 or above on a factor and the difference between the main loading and other cross-loadings was more than 0.300 (Howell *et al*., 2005).

In terms of the microcredit construct, four factors with an Eigenvalue greater than 1.000 arose and were consistent with the proposed constructs respectively representing *loan cost, the flexibility of loan repayment method, loan amount and loan accessibility.* The results of the KMO measure of sampling adequacy and Bartlett's test show that the data met the fundamental requirements for factor analysis (Kaiser-Meyer-Olkin statistic: 0.697; Bartlett Test of Sphericity: $\chi2$= 3,473.472**,** df= 66, *p*= 0.000). The four factors as identified above explained a total of 77.991 percent of the variance indicating a strong model. From the

analysis, loan cost emerged as the most important factor with an Eigenvalue of 3.152, explaining 26.265% of the variance in microcredit and loan amount emerged as the least important factor with an Eigenvalue of 1.562 and explaining 13.014% of the variance in microcredit.

Regarding the entrepreneurship training construct, four factors with an Eigenvalue greater than 1.000 arose and were consistent with the proposed constructs respectively representing *training content, training efficiency, training frequency and training accessibility.* The results of the KMO measure of sampling adequacy and Bartlett's test show that the data met the fundamental requirements for factor analysis (Kaiser-Meyer-Olkin statistic: 0.878; Bartlett Test of Sphericity: $\chi 2$ =18,255.565, df= 253, *p*= 0.000). The four factors explained a total of 82.780 percent of the variance indicating a strong model. From the analysis, training content emerged as the most important factor with an Eigenvalue of 9.759, explaining 42.4% of the variance in entrepreneurship training and training accessibility being the least important factor with an Eigenvalue of 1.766 and explaining 7.6% of the variance in entrepreneurship training. Tables II and III below shows the exploratory factor analysis of both the microcredit and entrepreneurship training constructs as well as factor loadings and cross-loadings for each item on factors.

**Table II:** Exploratory factor analysis for microcredit factors

| **Rotated Component Matrix**[a] | | | | |
|---|---|---|---|---|
| | | | **Components** | |
| | **Factor 1** | **Factor 2** | **Factor 3** | **Factor 4** |
| | **Loan Cost** | **Repayment Flexibility** | **Loan Amount** | **Loan Accessibility** |
| Loan was sufficient for business | 0.127 | -0.059 | **0.929** | 0.006 |
| Satisfied with loan amount granted over the 3 years period | 0.104 | 0.017 | **0.916** | -0.029 |
| The loan amount granted was less than applied | 0.032 | -0.138 | **0.788** | -0.111 |
| Understand requirements for accessing loan | -0.078 | 0.061 | -0.018 | **0.762** |
| Application process was not cumbersome | -0.034 | 0.056 | -0.056 | **0.871** |
| Timely approval of loan | -0.059 | 0.120 | -0.055 | 0.787 |
| Affordable interest charges | **0.908** | 0.026 | 0.084 | 0.074 |
| Bearable processing fees | **0.931** | 0.082 | 0.080 | -0.131 |
| Affordable loan deposit | **0.859** | 0.024 | 0.101 | -0.148 |
| Flexible loan schedule | 0.026 | **0.831** | 0.028 | 0.128 |
| Affordable loan repayment | 0.058 | **0.928** | -0.107 | 0.078 |
| Convenient loan term | 0.045 | **0.927** | -0.119 | 0.051 |
| Eigenvalues | **3.152** | **2.698** | **1.948** | **1.562** |
| % of Variance Explained | **26.265** | **22.481** | **16.232** | **13.014** |
| **Kaiser—Meyer-Olkin Measure of Sampling Adequacy** | **0.697** | | | |
| **Bartlett's Test of Sphericity** | | | | |
| Approx. Chi-Square | **3473.472** | | | |

| | |
|---|---|
| **df** | **66** |
| **Sig** | **0.000** |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

**Table III:** Exploratory factor analysis for entrepreneurship factors

| **Rotated Component Matrix**[a] | | | | |
|---|---|---|---|---|
| | **Components** | | | |
| | **Factor 1 Training Content** | **Factor 2 Training Efficiency** | **Factor 3 Training Frequency** | **Factor 4 Training Accessibility** |
| Difficulty in accessing training from FNGOs | 0.012 | 0.001 | 0.081 | **0.963** |
| Training obtained from FNGOs has been satisfactory | 0.092 | 0.019 | 0.172 | **0.939** |
| Training frequency from FNGOs is satisfactory | 0.092 | 0.051 | **0.841** | -0.004 |
| The frequency of training does not disrupt my scheduled business activities | 0.098 | 0.071 | **0.867** | -0.012 |
| Frequency of training enables knowledge application | 0.074 | 0.081 | **0.862** | 0.011 |
| Frequency of training encourages my participation in training | 0.052 | 0.113 | **0.843** | 0.106 |
| The frequency of training ensures my update of business-related knowledge | 0.067 | 0.136 | **0.755** | 0.245 |
| Training included lesson new management methods | **0.637** | -0.026 | 0.061 | 0.009 |
| Training included lesson on financial accounting | **0.955** | -0.024 | 0.081 | 0.089 |
| Training included lessons on customer relationship management | **0.964** | -0.037 | .089 | 0.071 |
| Training included lessons on the use of management information systems | **0.955** | -0.041 | 0.091 | 0.095 |
| Training included lessons on leadership and teamwork skills | **0.973** | -0.011 | 0.093 | 0.069 |
| Training included lessons on creativity and problem-solving skills | **0.974** | -.019 | 0.088 | 0.068 |
| Training included lessons on the development of interpersonal communication skills | **0.975** | -0.032 | 0.061 | 0.048 |
| Training included lessons on workplace safety | **0.958** | -0.077 | 0.026 | -0.046 |
| Training included lessons on use of machinery | **0.934** | -0.068 | 0.041 | -0.023 |

| | | | | |
|---|---|---|---|---|
| Training included lessons on service delivery methods | **0.953** | -0.066 | 0.030 | -0.041 |
| Training included lessons on new product and service innovation | **0.873** | -0.057 | 0.020 | -0.073 |
| Training is cost-effective | -0.066 | **0.842** | 0.129 | -0.048 |
| Training is timely | -0.088 | **0.916** | 0.100 | 0.078 |
| Training is well-delivered and understood | -0.100 | **0.938** | 0.118 | 0.047 |
| Training is beneficial for my personal development | -0.095 | **0.933** | 0.073 | -0.044 |
| Training resolved my current business challenges | 0.052 | **0.761** | 0.038 | 0.008 |
| **Eigenvalues** | **9.759** | **4.625** | **2.888** | **1.766** |
| **% of variance explained** | 42.432 | 20.111 | 12.557 | 7.680 |
| **Kaiser—Meyer-Olkin Measure of Sampling Adequacy** | **0.878** | | | |
| **Bartlett's Test of Sphericity** | **18255.565** | | | |
| Approx. Chi-Square | **253** | | | |
| **Sig** | **0.000** | | | |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

### *Reliability and validity test*

The study utilised the Cronbach's α test of reliability for all the microcredit and entrepreneurship training variables. As shown in Table IV, all variables used in this study, indicate a Cronbach's α score of 0.700 and above and this is considered reliable and internally consistent (Sekaran, 2003; Hair *et al*., 2010). In terms of content validity, Parasuraman *et al*. (1988) state that, content validity of a construct depends on the extent to which the construct items represent the themes being measured. The constructs used in this study are believed to possess content validity because the constructs were developed from various microcredit and entrepreneurship training studies such as Be´chard and Toulouse (1998), Rauch *et al*. (2005), Angelucci (2015), Kistruck *et.al* (2015), de Oliveira *et al*. (2015) and storey (1994) where similar variables were used. Table IV below presents the reliability test of the variables used in this study.

**Table IV:** Cronbach's alpha test of reliability for microcredit and entrepreneurship training factors and MSE performance

| Factors | Cronbach's Alpha | Cronbach's Alpha based on standardised items | No. of items |
|---|---|---|---|
| (1) Loan Cost | 0.887 | 0.893 | 3 |
| (2) Loan Repaymemt Flexibility | 0.886 | 0.888 | 3 |
| (3) Loan Amount | 0.865 | 0.864 | 3 |
| (4) Loan Accessibility | 0.739 | 0.748 | 3 |
| (5) Training Content | 0.977 | 0.983 | 11 |
| (6) Training Efficiency | 0.926 | 0.931 | 5 |
| (7) Training Frequency | 0.897 | 0.900 | 5 |
| (8) Training Accessibility | 0.934 | 0.943 | 2 |
| **Performance** | | | |
| (1) Employment Growth | 0.907 | 0.913 | 10 |
| (2) Sales Growth | 0.890 | 0.901 | 5 |
| (3) Profitability Growth | 0.801 | 0.826 | 5 |

## Results

The descriptive statistics in terms of the mean, standard deviations, minimum and maximum values, skewness and kurtosis of both the dependent and independent variables are presented in Table V below. Also, the correlation matrix for all the variables as well as the regression analysis of the various variables is presented in Tables VI and VII respectively. Since all the Variance Inflation Factors (VIF) as seen in Table VII are below 4, multicollinearity is not a major concern in this study (Burns and Burns, 2008; Wang and Ahmed, 2009). The highest VIF value which is 3.423 indicates that the model is relatively strong.

To test for the hypotheses and the relationships in the model, the study adopted a multiple linear regression analysis. A hierarchical regression consisting of six regressions grouped into 2 models were executed to test the relationship among all the variables. Whilst model 1 consist of 3 regressions executed with the 4 control variables and each of the 3 dependent variables (employment, sales, and profitability growth) separately, model 2 consist of 3 regressions executed involving the 4 control variables, all the 8 independent variables and the 3 dependent variables separately.

**Table V:** Descriptive statistics

| | | | | | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|
| **Variable** | **Minimum** | **Maximum** | **Mean** | **Std. Dev.** | | | | |
| | | | | | **Statistic** | **Std. Error** | **Statistic** | **Std. Error** |
| Employment growth | 2.00 | 5.00 | 4.2588 | .46476 | .624 | .109 | .256 | .217 |
| Profitability growth | 2.00 | 5.00 | 4.1956 | .51440 | .157 | .109 | .563 | .217 |
| Sales growth | 2.00 | 5.00 | 4.2470 | .45841 | .675 | .109 | .427 | .217 |
| Gender | 0.00 | 1.00 | 0.14 | 0.353 | 2.056 | .109 | 2.274 | .217 |
| Business age | 2.00 | 5.00 | 4.0000 | .66003 | -.290 | .109 | .192 | .217 |
| Industry category | 0.00 | 1.00 | 0.15 | 0.354 | -1.053 | .109 | 1.538 | .217 |
| Manager's Education education | 2.00 | 6.00 | 5.0909 | .65675 | -.644 | .109 | 1.555 | .217 |
| Loan Amount | 1.00 | 5.00 | 3.9920 | 1.00381 | -1.430 | .109 | 1.821 | .217 |
| Loan accessibility | 2.66 | 5.00 | 4.0474 | .51804 | -.010 | .109 | .918 | .217 |
| Loan cost | 1.00 | 5.00 | 4.2248 | .78031 | -.839 | .109 | .586 | .217 |
| Loan flexibility | 1.00 | 5.00 | 4.0904 | .60982 | -2.003 | .109 | 8.815 | .217 |
| ET accessibility | 2.00 | 5.00 | 3.6798 | .67799 | -.347 | .109 | .114 | .217 |
| ET frequency | 2.00 | 5.00 | 3.9565 | .56820 | -.658 | .109 | 4.510 | .217 |
| ET content | 1.00 | 5.00 | 4.3616 | .66325 | -1.158 | .109 | 2.359 | .217 |
| ET efficiency | 1.00 | 5.00 | 4.1805 | .81886 | -.801 | .109 | .209 | .217 |
| Valid (listwise:506) | 506 | | | | | | | |

**Table: VI:** Correlation matrix for microcredit, entrepreneurship training, control variables and MSE performance

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Employment | - | | | | | | | | | | | | | |
| Sales | 0.926 | - | | | | | | | | | | | | |
| Profitability | 0.765 | 0.744 | - | | | | | | | | | | | |
| Gender | 0.124** | 0.100** | 0.103** | - | | | | | | | | | | |
| Manager's Educ. Level | 0.169*** | 0.155*** | 0.094** | 0.158*** | - | | | | | | | | | |
| Industry Category | 0.347*** | 0.297*** | 0.218*** | 0.056 | 0.105** | - | | | | | | | | |
| Business Age | 0.327*** | 0.286*** | 0.252*** | 0.024 | 0.074** | 0.756*** | - | | | | | | | |
| Loan repayment Flexibility | 0.258*** | 0.248*** | 0.158*** | 0.048 | 0.169*** | 0.122** | 0.045 | - | | | | | | |
| Loan Cost | -0.013 | -0.012 | -0.042 | -0.013 | 0.149*** | -0.006 | -0.060* | 0.280*** | - | | | | | |
| Loan Amount | 0.279*** | 0.265*** | 0.204*** | 0.035 | 0.111** | 0.062* | -0.015 | 0.333*** | 0.104** | - | | | | |
| Loan Accessibility | 0.308*** | 0.298*** | 0.252*** | 0.02 | 0.094** | 0.600*** | 0.741*** | 0.097** | -0.019 | -0.014 | - | | | |
| ET Content | 0.085** | 0.075** | 0.057** | -0.098** | -0.039 | 0.058* | 0.023 | -0.067* | 0.033 | 0.094** | 0.011 | - | | |
| ET Efficiency | 0.144** | 0.088** | 0.106** | -0.042 | -0.096** | 0.169*** | 0.153*** | -0.044 | -0.147*** | -0.071** | 0.137** | 0.04 | - | |
| ET Frequency | 0.238*** | 0.247*** | 0.158*** | 0.016 | 0.042 | -0.004 | -0.012 | 0.086** | 0.070* | 0.062* | -0.045 | -0.027 | -0.131** | - |
| ET Accessibility | 0.188*** | 0.191*** | 0.106** | 0.073* | 0.119** | 0.161*** | 0.088** | 0.180*** | 0.097** | 0.074** | 0.143** | 0.008 | 0.054 | 0.061* |

(Left row-group label: **Pearson Correlation**)

Note: The table shows the correlation among all the variables. The levels of significance are $*p<0.1, **p<0.05, ***p<0.0$

**Table VII: Regression analysis of MSE performance**

| | Employment Growth | | | | | | | | Sales Growth | | | | | | | | Profitability Growth | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Model 1 | | | | Model 2 | | | | Model 1 | | | | Model 2 | | | | Model 1 | | | | Model 2 | | | |
| | $\beta$ | St. Err. | Sig. | VIF | $\beta$ | St. Err | Sig. | VIF | $\beta$ | St. Err. | Sig. | VIF | $\beta$ | St. Err. | Sig. | VIF | $\beta$ | St. Err. | Sig. | VIF | $\beta$ | St. Err. | Sig. | VIF |
| Gender | .196** | .091 | .001 | 1.028 | .194** | .082 | .019 | 1.044 | .148 | .092 | .002 | 1.028 | .140* | .084 | .095 | 1.044 | .207** | .105 | .049 | 1.028. | .207** | .101 | .041 | 1.044 |
| Manager's Edu. | .086** | .030 | .004 | 1.036 | .062** | .027 | .024 | 1.095 | .081** | .030 | .004 | 1.036 | .053* | .028 | .058 | 1.095 | .047 | .034 | .173 | 1.036 | .031 | .034 | .364 | 1.095 |
| Industry Category | .184** | .055 | .001 | 2.351 | .090* | .051 | .080 | 2.477 | .145** | .056 | .001 | 2.351 | .056 | .052 | .285 | 2.477 | .049 | .064 | .448 | 2.334 | .026 | .063 | .679 | 2.477 |
| Business Age | .149** | .059 | .002 | 2.334 | .116* | .065 | .074 | 3.423 | .139** | .060 | .002 | 2.334 | .075 | .066 | .254 | 3.423 | .217** | .069 | .002 | 2.351 | .145* | .079 | .068 | 3.423 |
| Loan Flexibility | | | | | .108** | .032 | .001 | 1.283 | | | | | .102** | .032 | .002 | 1.283 | | | | | .071* | .039 | .070 | 1.283 |
| Loan Cost | | | | | -.049 | .023 | .036 | 1.134 | | | | | -.51** | .024 | .032 | 1.134 | | | | | -.052* | .029 | .071 | 1.134 |
| Loan Amount | | | | | .096*** | .018 | .000 | 1.161 | | | | | .89*** | .019 | .000 | 1.161 | | | | | .088*** | .023 | .000 | 1.161 |
| Loan Accessibility | | | | | .102** | .050 | .042 | 2.291 | | | | | .146** | .051 | .004 | 2.291 | | | | | .141** | .062 | .230 | 2.291 |
| ET Content | | | | | .056** | .026 | .033 | 1.042 | | | | | .050* | .027 | .063 | 1.042 | | | | | .044 | .032 | .179 | 1.042 |
| ET Efficiency | | | | | .078*** | .022 | .000 | 1.089 | | | | | .047** | .022 | .036 | 1.089 | | | | | .062** | .027 | .022 | 1.089 |
| ET Frequency | | | | | .193*** | .031 | .000 | 1.033 | | | | | .194*** | .031 | .000 | 1.033 | | | | | .147*** | .038 | .000 | 1.033 |
| ET Accessibility | | | | | .050* | .026 | .061 | 1.084 | | | | | .058** | .027 | .030 | 1.084 | | | | | .024 | .032 | .466 | 1.084 |
| $R^2$ | .556 | | | | .828 | | | | .517 | | | | .785 | | | | .578 | | | | .672 | | | |
| Adj. $R^2$ | .549 | | | | .812 | | | | .510 | | | | .767 | | | | .503 | | | | .651 | | | |
| ANOVA F | 23.141 | | | | 20.059 | | | | 16.658 | | | | 16.367 | | | | 10.525 | | | | 8.506 | | | |
| Sig. F | | | | | .000 | | | | .000 | | | | .000 | | | | .000 | | | | .000 | | | |
| N | 506 | | | | 506 | | | | 506 | | | | 506 | | | | 506 | | | | 506 | | | |

From the full regression model (model 2), the results are presented below.

*The impact of FNGO microcredit on the  performance of  MSEs*
Firstly, regarding the impact of microcredit on employment growth of MSEs, the results show that loan repayment flexibility ($\beta$=0.108, $p <0.001$), loan cost ($\beta = -0.049$, $p < 0.036$), and loan accessibility ($\beta = 0.102$, $p < 0.042$), significantly predict employment growth at 5% level. However, the loan amount predicts employment growth at 1% level ($\beta = 0.096$, $p < 0.000$). Therefore, whilst a unit increase in loan amount increases employment growth by 9.6%, a unit increase in loan repayment flexibility increases employment growth by 10.8%. Similarly, whilst a unit increase in loan accessibility increases employment growth by 10.2%, a unit increase in loan cost decreases employment growth by 4.9%. Therefore, whilst the highest predictor of employment growth among MSEs is loan repayment flexibility, the lowest predictor is loan amount.

Secondly, the findings regarding the impact of microcredit on sales growth of MSEs indicate that, loan repayment flexibility ($\beta$=0.102, $p < 0.002$), loan accessibility ($\beta = 0.146$, $p < 0.004$) and loan cost ($\beta = -0.051$, $p < 0.032$) predicts sales growth at 5% level. However, the loan amount significantly predicts sales growth at 1% level ($\beta = 0.089$, $p < 0.000$). In analysing the nature of the relationships, whilst a unit increase in loan repayment flexibility increases sales growth by 10.2%, a unit increase in loan cost decreases sales growth by 5.1%. Similarly, whilst a unit increase in loan amount increases sales growth by 8.9%, a unit increase in loan accessibility increases sales growth by 14.6%. Therefore, whilst the highest predictor of sales growth among MSEs is loan accessibility, the lowest predictor is loan amount.

Finally, pertaining to the impact of microcredit on the profitability growth of MSEs, the results show that whilst loan repayment flexibility ($\beta = 0.071$, $p < 0.070$) and loan cost ($\beta = -0.052$, $p < 0.071$) are partially significant on profitability at 10% level, loan accessibility ($\beta = 0.141$, $p < 0.023$) is statistically significant on profitability growth at 5% level. However, loan amount ($\beta = 0.088$, $p < 0.000$) is statistically significant on profitability growth at 1%.

In analysing the nature of the relationships, whilst a unit increase in loan repayment flexibility increases profitability growth by 7.1%, a unit increase in loan cost decreases profitability growth by 5.2%. Similarly, whilst a unit increase in loan amount increases profitability growth by 8.8%, a unit increase in loan accessibility increases profitability growth by 14.1%. Therefore, whilst the highest predictor of profitability growth among MSEs is loan accessibility, the lowest predictor is loan repayment flexibility. Therefore, the hypothesis *H₁ is* accepted.

*The impact of entrepreneurship training on  the performance of  MSEs*

Firstly, regarding the impact of entrepreneurship training on employment growth of MSEs, the results indicate that training efficiency ($\beta = 0.078$, $p < 0.000$) and training frequency ($\beta$=0.193, $p <0.000$) significantly predicts employment growth at 1% level. Whiles training content ($\beta$=0.056, $p< 0.033$) predict employment growth at 5% level, training accessibility is partially significant at 10% ($\beta$=0.050, $p <0.061$). Therefore, whilst a unit increase in training efficiency increases employment growth by 7.8%, a unit increase in training frequency increases employment growth by 19.3%. Similarly, whilst a unit increase in training content increases employment growth by 5.6%, a unit increase in training accessibility increases employment

growth by 5%. Therefore, whilst the highest predictor of employment growth among MSEs is training frequency, the lowest predictor is training accessibility.

Secondly, the results regarding the impact of entrepreneurship training on sales growth indicate that, training efficiency ($\beta = 0.047$, $p<0.036$), and training accessibility ($\beta=0.058$, $p<0.030$), are statistically significant on sales growth at 5% level. However, whilst training frequency ($\beta = 0.194$, $p < 0.000$) is statistically significant at 1% level, training content is partially statistically significant at 10% level ($\beta=0.050$, $p< 0.063$). Therefore, whilst a unit increase in training efficiency increases sales growth by 4.7%, a unit increase in training accessibility increases sales growth by 5.8%. Similarly, whilst a unit increase in training frequency increases sales growth at 19.4%, a unit increase in training content increases sales growth by 5%. Therefore, whilst the highest predictor of sales growth among MSEs is training frequency, the lowest predictor is training efficiency.

Finally, with respect to the impact of entrepreneurship training on the profitability of MSEs, the results show that whilst training frequency is statistically significant at 1% level ($\beta=0.147$, $p< 0.000$), training efficiency is statistically significant at 5% level ($\beta=0.062$, $p<0.022$). However, both training content ($\beta=0.044$, $p< 0.179$) and training accessibility ($\beta=0.024$, $p<0.466$) are statistically insignificant in predicting profitability growth of MSEs. Therefore, a unit increase in training efficiency increases profitability growth by 6.2%. Similarly, a unit increase in training frequency increases profitability growth at 14.7%. Therefore, whilst the highest predictor of profitability growth among MSEs is training frequency, the lowest predictor is training efficiency. Therefore, the hypothesis $H_2$ is accepted.

*The influence of MSE characteristics on performance*

In terms of the control variables, firstly, the results show that MSE characteristics such as the gender of the owner, the manager's educational level, industry category and the age of the MSE have a significant influence on employment growth at 5% level [(Gender, $\beta=0.196$, $p<0.032$), (Manager's level of education, $\beta=0.086$, $p<0.004$), (Industry category, $\beta=0.184$, $p<0.001$), (Age of business, $\beta=0.149$, $p<0.012$)]. Secondly, the results also show that the Manager's level of education, Industry category and Age of business influences sales growth at 5% level [(Manager's level of education, $\beta=0.081$, $p<0.007$), (Industry category, $\beta=0.145$, $p<0.010$), (Age of business, $\beta=0.139$, $p<0.020$)]. However, gender does not influence sales growth (Gender, $\beta=0.148$, $p<0.107$). Finally, the results show that Gender and the Age of business have a significant influence on profitability growth of MSEs at 5% level [(Gender, $\beta=0.207$, $p<0.049$), (Age of business, $\beta=0.217$, $p<0.002$)]. However, the manager's level of education and industry category does not have any influence on the profitability of the MSE [(Manager's level of education, $\beta=0.047$, $p<0.173$), (Industry category, $\beta=0.049$, $p<0.448$)].

To assess the overall fitness of the model, ANOVA $F$-values of the full regression model were inspected. The $F$-values are employment (20.059), sales (16.367), and profitability (8.506) which are all significant at 1% level. The $R^2$ is another variable which can indicate the overall fitness of the regression model. Therefore, the $R^2$ values of model 2 were also inspected. The $R^2$ values are employment (0.828), sales (0.785), and profitability (0.672) indicating a strong model. The adjusted $R^2$ values are employment (0.812) sales (0.767), and profitability (0.651). This implies that the full regression model can explain the variances in employment, sales and profitability growth by 81.2%, 76.7%, and 65.1% respectively. Comparatively, it could be observed that there has been a significant change in the adjusted $R^2$ values of model 2 when compared to that of model 1. The adjusted $R^2$ values for model 1 are employment (0.549), sales (0.510), and profitability (0.503). Observing these changes closely, it could be seen that employment growth has changed from 54.9% in model 1 to 81.2% in model 2. Similarly, sales

growth has also changed from 51% in model 1 to 78.5% in model 2. Also, profitability growth has changed from 50.3 % in model 1 to 65.1% in model 2. These observed changes imply that the independent variables account for significant variance in the performance of MSEs. Thus, there is a percentage change of 26.3%, 27.5% and 14.8% in employment, sales and profitability growth respectively. The results also indicate that there is no linear correlation between employment, sales and profitability (Table VI). Usually, these variables need to correlate. This was an interesting finding. In the MSE sector in developing countries, most business decisions are not made solely on the basis of profitability. For instance, an MSE owner might decide to employ a family member for a social reason but not necessarily based on the profitability of the enterprise. Some of these decisions, therefore, account for the high attrition rate of MSEs in developing countries. More so, the manager's level of education is positively correlated with employment growth but not with sales and profitability growth (Table VII). This indicates that the MSE owner is usually interested in employing and developing other employees if the owner himself has a good educational background. However, this decision might be related much more to social orientation and the willingness to support other family members rather than based on the growth of the enterprise nor profitability. MSEs in Ghana are usually family owned. There are therefore several social factors which are difficult to be separated from the enterprise.

## Discussion

*The cost of microcredit from FNGOs has a negative impact on MSE performance and growth in Ghana*

As noted in the previous discussions, FNGOs remained one of the dominant providers of microcredit to MSEs due to their social welfare orientation in the delivery of financial services to the poor. However, even though microcredit from FNGOs has remained the most accessible financial choice for MSEs in Ghana, the cost associated with their services has become burdensome to MSE growth, expansion and their general contribution to the Ghanaian economy (Donou-Adonsoua and Sylwester, 2016). In the same vein, Aboagye (2012) argues that one factor which can inhibit access to microcredit is its cost. Most FNGOs in Ghana charge on the average 6% per month on their loans and this runs into 72% per annum. The cost of credit in Ghana is therefore expensive and inhibitive to MSEs's growth and performance (Abor and Quartey, 2010; Egyir, 2010). Due to this cost, many MSEs are observed struggling to meet their loan repayment terms which leads to a very high loan default rate in the Ghanaian microfinance sector (Hamilton and Fox, 1998). Apart from the cost of microcredit which might be prohibitive to MSEs, loan accessibility, amount and flexibility of loan repayment are favourable to the operation of MSEs in Ghana. In supporting the growth of MSEs in Ghana, the provision of a cost-effective credit is a pre-requisite and the situation currently needs to be improved (Osei-Assibey, 2011). The government of Ghana through its Microfinance programme and other supports from various donor communities could be helpful in providing cheaper financial capital to support the growth of MSEs in their anticipation to reduce poverty through employment generation.

*MSEs need human capital development services to enhance their performance in Ghana*

It has been argued severally that MSEs in Africa and Ghana for that matter, do not only need financial services to succeed in promoting their entrepreneurial pursuits (Newman, Schwarz, and Borgia, 2014). Rather, MSE owners need to be equipped with various entrepreneurial and managerial skills which will improve the performance of their MSEs (Newman *et al.* 2014; Raven and Le, 2015). More so, the high rate of failure and poor performance of MSEs in Africa and Ghana for that matter has been largely attributed to the lack of managerial capacity of MSE managers (Fatoki, 2011; Rambe and Makhalemele, 2015). Therefore, FNGOs in their effort to provide financial services to MSEs provide various kinds of managerial and entrepreneurial training to MSEs. However, the design of training content, frequency, efficiency, and accessibility are important issues that demand attention in the delivery of entrepreneurial training to MSEs in Ghana.

The results indicate that these training programmes provided by FNGOs have a tremendous impact on the performance and growth of MSEs. For instance, training content has a significant impact on the employment growth of MSEs ($ß=0.056$, $p < 0.033$). This implies that for entrepreneurship training programmes to yield the best results, the quality of the content of such programmes is essential (Kanungo and Misra,1992; Sidek and Mohamad, 2014). More so, training frequency is also found to have a significant impact on the employment growth of MSEs ($ß=0.193$, $p= 0.000$). Thus, the frequency at which MSEs are provided with training greatly increases their performance rate (Newkirk-Moore and Bracker,1998). However, training accessibility ($ß=0.024$, $p<0.466$) and content ($ß=0.044$, $p< 0.179$) even though has a positive impact on employment and sales growth, do not explain the profitability of MSEs. FNGOs, therefore, need to adapt training contents to focus on providing skills that are aimed at reducing the cost of operating the MSEs as well as increasing the profitability of their business activities. Secondly, FNGOs also need to reduce training accessibility gaps to improve the profitability of MSEs (Al-Madhoun, 2006; Kambwale *et al.*, 2015). FNGOs with their social welfare logic therefore seems to be responsive to meeting the needs of MSEs in terms of providing the needed financial capital as well as developing the human capital base of the MSE owners.

**Conclusion**

In contrast to the existing literature on the impact of microcredit on MSE growth and performance (Newman *et al.* 2014), this study found that the provision of microcredit to MSEs alone does not increase the performance of MSEs. However, microcredit should be provided along with entrepreneurship training and managerial capacity building. This implies that for MSEs to achieve the desired growth in employment, sales and profitability, the owners should be provided with the necessary entrepreneurial and managerial skills (Fatoki, 2011; Rambe and Makhalemele, 2015). MSEs also need support in terms of access to cheap, reliable, and accessible credit with flexible repayment terms. This study, therefore, suggests that there is the need for all stakeholders in Ghana including the central government, banks, the donor community and other financial institutions to support the current effort of FNGOs in providing financial services to MSEs which has the capacity to reduce poverty in Ghana. More so, the institutional logic of an FNGO influences its ability to design loan products and other training services that meet the needs of MSEs in terms of accessibility and efficiency of those programmes. Typically, FNGOs with their social welfare logic, are concerned with the provision of human capital development services along with microcredit delivery. This essentially encourages superior performance and sustainability of the MSE through the acquired managerial skills which in turn has an effect on the sustainability of the FNGO due to the ability of the MSEs to repay their loans efficiently.

*Research Limitations*

Even though the sample size of the study is fairly large, the generalisation of this study to the whole of Ghana should be cautiously done. Secondly, this study heavily depended on quantitative data and could have also benefited from some qualitative dimension to complement or confirm the findings of this study. Lastly, the inability to measure the potential deviation from the long-term growth average is a limitation to this study.

*Recommendations for Future Research*

The findings from this study highlight some further research areas which future research could be focused. Firstly, future research could focus on engaging commercial microfinance institutions with a purely commercial motive in a study of this nature to assess the impact of their services on MSE performance in Ghana. Secondly, the researchers suggest that future research could be extended beyond the Volta region of Ghana in testing the model used in this study. Probably FNGO activities in the three Northern regions of Ghana could be examined. Finally, it is suggested that a mixed research approach could be explored in a future research endeavour of this kind whereby the qualitative findings could be used to confirm or complement the findings in this study.

*References*

Aboagye, Q. Q. (2012), ''Bank concentration and economic costs of deposit mobilization and credit extension in Ghana'', *The Journal of Developing Areas,* Vol. 46 No.2, pp.351-370.

Abor, J., and Quartey, P. (2010), ''Issues in SME Development in Ghana and South Africa'', *International Research Journal of Finance and Economics* Vol.39, pp.218-228.

Ahlin, C., and Jiang, N. (2008), ''Can micro-credit bring development?'' *Journal of Development*
    *Economics,* Vol.86, pp.1– 21.

Alexander, A. (2012),''The Effects of Legal, Normative, and Cultural-Cognitive Institutions on Innovation in Technology Alliances'', *Management International Review* Vol. 52 No.6, pp.791–815.

Allison, H. T., Davis, C. B., Short, C. J., and Webb, W. J. (2015) ''Crowdfunding in a Prosocial Microlending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues. *Entrepreneurship Theory and Practice,* Vol. 39 No.1, pp.53-73.

Al-Madhoun, M. (2006), ''Training under fire: The relationship between obstacles facing training and SMEs' development in Palestine'', *Journal of European Industrial Training,* Vol. 20 No.2, pp.100-116.

Amoako, O. I., and Matlay, H. (2015), '' Norms and trust-shaping relationships among food-exporting SMEs in Ghana''. *The International Journal of Entrepreneurship and Innovation'',* Vol.16 No.2, pp. 123–134.

Angelucci, M., Karlan, D., and Zinman, J. (2015), ''Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco. *American Economic Journal. Applied Economics,* Vol.7 No.1, pp.151-182.

ASSFIN. (2017), *Member Institutions*. Available: http://ghassfin.org/member-institutions(Accessed 21 January 2018).

Atiase, Y.V., Mahmood, S., Wang, Y., and Botchie, D. (2018), ''Developing entrepreneurship in Africa: investigating critical resource challenges''. *Journal of Small Business and Enterprise Development*. Vol. 25 No.4, pp. 644-666

Atiase, V.Y, Wang, Y., and Mahmood, S.(2019) FNGOs and financial inclusion: investigating the impact of microcredit on employment generation in Ghana, International Journal of Entrepreneurship and Innovation,Vol. 20 No.2 pp. 90-106

Ayele, T. G. (2015), ''Microfinance Institutions in Ethiopia, Kenya and Uganda: Loan Outreach to the Poor and the Quest for Financial Viability, *African Development Review,* Vol. 27 No.2, pp.117– 129.

Bank of Ghana (2015) *Licensing Policy and Guidelines.* Available: https://www.bog.gov.gh/privatecontent/Banking_Supervision/REQUIREMENT%20F OR%20MFI%20LICENCE.pdf (Accessed 21 January 2018)

Baland, J.M., Somanathan, R., and Wahhaj, Z. (2013),''Repayment incentives and the distribution of gains from group lending'', *Journal of Development Economics,* Vol.105, pp.131–139.

Bastiéa, F., Cussya, P., and Nadant, L. A.L. (2016), ''Network or Independent Business? Entrepreneurs' Human, Social and Financial Capital as Determinants of Mode of Entry'', *Managerial and Decision Economics,* Vol.37 No.3, pp. 167–181.

Battilana, J., and Dorado, S. (2010), ''Building sustainable hybrid Organisations: The case of Commercial microfinance organizations, *Academy of Management Journal,* Vol.53 No.6, pp 1419-1440.

Be´chard, J.P., and Toulouse, J.M. T. (1998), ''Validation of a didactic model for the analysis of training objectives in entrepreneurship'', *Journal of Business Venturing,* Vol.13 No.4, pp.317–332.

Besharov, M., and Smith, K. (2014), ''Multiple Institutional Logics in Organizations: Explaining their varied nature and implications, *Academy of Management Review, 39*(3), pp 364-381.

Blackburn, A. R., Hart, M., and Wainwright, T. (2013), ''Small business performance: Business, strategy and owner-manager characteristics'', *Journal of Small Business and Enterprise Development,* Vol.20 No. 1, pp. 8 - 27.

Brau, C., and Woller, M. (2004), ''Microfinance: A Comprehensive Review of the Existing Literature, *Journal of Entrepreneurial Practice and Business Venture,* Vol. 9 No.1, pp.1-28.

Burns, B., and Burns, A. (2008),''*Business research methods and statistics using SPSS.* London: Sage Publications Ltd.

Chahine, S., and Tannir, L. (2010), ''On the Social and Financial Effects of the Transformation of Microfinance NGOs'', *Voluntas,* Vol.21, pp.440–461.

Chong, H. (2008), ''Measuring performance of small and medium-sized enterprises: The grounded theory approach'', *Journal of Business and Public Affairs,* Vol.2 No. 1, pp.1-10.

Cobb, J. A., Wry, T., and Zhao, E. Y. (2016), ''Funding Financial Inclusion: Institutional Logics and the Contextual Contingency of Funding for Microfinance Organisations'' *Academy of Management Journal,* Vol.56 No.6, pp.2103 - 2131.

Cooper, C. A., Gimeno-Gascon, F., and Woo, Y. (1994), ''Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing,* Vol. 9 No.5, pp.371-395.

Copestake, J. (2007), ''Mainstreaming Microfinance; Social Performance Management or Mission Drift'', *World Development,* Vol.35 No.10, pp.1721-1738.

D'Espallier, B., Goedecke, J., Hudon, M., and Mersland, R. (2017), ''From NGOs to Banks: Does Institutional Transformation Alter the Business Model of Microfinance Institutions?'' *World Development,* Vol. 89, pp. 19–33.

De Haan, L., and Lakwob, A. (2010), ''Rethinking the Impact of Microfinance in Africa: 'Business Change' or Social Emancipation'', *European Journal of Development Research, Vol. 22*, pp.529– 545.

De Oliveira, J., Filho, E. E., Nagano, S., Ferraudo, S. A., and Rosim, D. (2015), ''What do small business owner-managers do? A managerial work perspective'', *Journal of Global Entrepreneurship Research,* Vol.5 No.19, pp.2-21.

Deephouse, L., Newburry, W., and Soleimani, A. (2016), ''The effects of institutional development and national culture on cross-national differences in corporate reputation'', *Journal of World Business,* Vol. 51 No.3, pp.463–473.

Dichter, T. (1999), ''*Case Studies in Microfinance: Non-governmental organizations (NGOs) In Microfinance; Past, Present And Future - An Essay.* Available: http://sme.ebi.gov.eg/Documents/Microfinance/Nongovernmental%20organizations%20(NGOs)%20In%20Microfinance.pdf Accessed: July 27, 2017

DiMaggio, P. J., and Powell, W. W. (1983), ''The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields'', *American Sociological Review,* Vol.48 No.2, pp.147–160.

Donou-Adonsoua, F., and Sylwester, K. (2016), ''Financial development and poverty reduction in developing countries: New evidence from banks and microfinance institutions'', *Review of Development Finance,* Vol.6, pp.82–90.

Egyir, S. I. (2010), ''Rural Women and Microfinance in Ghana: Challenges and Prospects''. *Joint 3rd African Association of Agricultural Economists (AAAE) and 48th Agricultural Economists Association of South Africa (AEASA) Conference, South Africa, September*, pp.19-23). Cape Town.

Fainshmidta, S., Judgeb, Q. W., Aguilerac, V. R., and Smith, A. (2018), ''Varieties of institutional systems: A contextual taxonomy of understudied countries. *Journal of World Business*. Vol. 53 No. 3, pp.307-322

Fatoki, O. O. (2011), ''The Impact of Human, Social and Financial Capital on the Performance of Small and Medium-Sized Enterprises (SMEs) in South Africa'', *Journal of Social Sciences,* Vol 29 No.3, pp.193-204.

Follesdal, A. (2009), ''How to Bring Normative Requirements to Bear on Institutions beyond the State'', *Journal of Social Philosophy,* Vol. 40 No.4, pp.461–465.

Ganle, K. J., Afriyie, K., and Segbefia, Y. A. (2015), ''Microcredit: Empowerment and Disempowerment of Rural Women in Ghana''. *World Development,* Vol.66, pp. 335–345.

Gine ́, X., and Townsend, M. (2004), ''Evaluation of financial liberalization: a general equilibrium model with constrained occupation choice'', *Journal of Development Economics,* Vol.74, pp. 269– 307.

Guha, B., and Chowdhury, R. P. (2013), ''Micro-finance competition: Motivated micro-lenders, double-dipping and default'', *Journal of Development Economics,* Vol.105, pp.86–102.

Haag, A., and Henschel, T. (2016), ''SME lending relationships: A learning perspective'', *The International Journal of Entrepreneurship and Innovation,* Vol.17 No.3, pp.184–193.

Habib, M., and Jubb, C. (2013), ''NGO, Social Capital and Microfinance: A Conceptual Model'', *International Journal of Sustainable Development,* Vol.6 4, pp.67-78.

Hair, J., Black, W., Babin, B., and Anderson, R. (2010), *Multivariate Data Analysis*, New Jessey: Pearson, Englewood Cliffs.

Hamilton, R. T., and Fox, A. M. (1998), ''The financing preferences of small firm owners'', *International Journal of Entrepreneurial Behaviour and Research,* Vol. 4 No.3, pp. 239-248.

Hancock, G. R., and Mueller, R. O. (2010), *The reviewer's guide to quantitative methods in the social sciences.* New York: Routledge.

Howell, J., Shea, C., and Higgins, C. (2005), ''Champions of product innovations: defining, developing, and validating a measure of champion behaviour. *Journal of Business Venturing,* Vol. 20 No.5, pp. 641-661.

Huang, T.C. (2001), ''The relation of training practices and organizational performance in small and medium-sized enterprises'', *Education + Training,* Vol.43 No.8, pp.437-444.

IM, J., and Sun, L. S. (2015), ''Profits and outreach to the poor: The institutional logics of microfinance institutions'', *Asia Pacific Journal of Management,* Vol.32, pp.95-117.

Jantan, M. A., Honeycutt, D. E., Thelen, T. S., and Attia, M. A. (2004), ''Managerial perception of sales training and performance. *Industrial Marketing Management,* Vol.33, pp.667–67.

Kambwale, J. N., Chisoro, C., and Karodia, A. M. (2015), ''Investigation into the causes of Small and Medium Enterprises failures in Windhoek Namibia. *Arabian Journal of Business and Management Review,* Vol.4 No.7, pp. 80-109.

Kanungo, R., and Misra, S. (1992), ''Managerial Resourcefulness: A Reconceptualization of Management Skills'', *Human Relations,* Vol.45, pp.1311-1332.

Khavul, S. (2010), ''Microfinance: Creating Opportunities for the Poor?'' *Academy of Management Perspective,* Vol.24 No.3, 58-72.

King, D., Coldwell, D., Joosub, T., and McClelland, D. (2015), ''Institutional forces and divestment performance of South African Conglomerates: Case Study Evidence'', *South African Journal of Economic and Management Sciences,* Vol.18 No.3, pp. 338 - 353.

Kshetri, N. (2010), ''Normative and Cognitive Institutions Affecting A Firm's E-Commerce Adoption'', *Journal of Electronic Commerce Research,* Vol. 11 No.2, pp.157-174.

Kuzilwa, A. J. (2005), ''The Role of Credit for Small Business Success: A Study of the National Entrepreneurship Development Fund in Tanzania'', *The Journal of Entrepreneurship,* Vol.14 No.2, pp.131-161.

Lash, A. N. (2008), ''Asymmetric Finance: Issues in Microfinance''. *The Journal of Economic Asymmetries,* Vol.5 No.1, pp. 93-107.

Lau, L. T., Shaffer, A. M., Chan, F. K., and Man, W. Y. (2012), ''The entrepreneurial behaviour inventory. *International Journal of Entrepreneurial Behaviour and Research,* Vol.18 No. 6, pp. 673-696.

Macht, A. S., and Robinson, J. (2009), ''Do business angels benefit their investee companies?'', *International Journal of Entrepreneurial Behaviour and Research, Vol.15 No.*2, pp.187-208.

Mahmood, R., and Rosli, M. (2013), ''Microcredit position in micro and small enterprise performance: the Malaysian case. *Management Research Review,* Vol.36 No 5, pp.436-453.

Mahmood, S., Hussain, J., and Matlay, Z. (2014), ''Optimal microfinance loan size and poverty reduction amongst female entrepreneurs in Pakistan'', *Journal of Small Business and Enterprise Development,* Vol. 21 No.2, pp.231-249.

McGaughey, S. L., Kumaraswamy, A., and Liesch, W. P. (2016), ''Institutions, entrepreneurship and co-evolution in international business'', *Journal of World Business,* Vol.51 No.6, pp. 871–881.

McQuarrie, A. E., Kondra, Z. A., and Lamertz, K. (2013), ''Government, coercive power and the perceived legitimacy of Canadian post-secondary institutions'', *Canadian Journal of Higher Education,* Vol.43 No.2, pp.149-165.

Mersland, R., and Strøm, R. Ø. (2008), ''Performance and trade-offs in Microfinance Organisations—Does ownership matter?'', *Journal of International Development,* Vol.20 No.5, pp.598 - 612.

Mersland, R., and Strøm, R. Ø. (2010), ''Microfinance Mission Drift? *World Development,* Vol.38 No.1, pp.28-36.

Serrano-Cinca, C., and Gutiérrez-Nieto, B. (2014), ''Microfinance, the long tail and mission drift",
        *International Business Review* Vol. 23 No.1, pp.181–194.

Meyer, J. W., and Rowan, B. (1977), ''Institutionalized organizations: formal structure as myth and ceremony'', *American Journal of Sociology,* Vol.83, pp.340-63.

Mizruchi, M. S., and Fein, L. C. (1999), ''The Social Construction of Organizational Knowledge: A Study of the Uses of Coercive, Mimetic, and Normative Isomorphism. *Administrative Science Quarterly,* Vol.44 No.4, pp. 653 - 683.

Morais, N., and Ahmad, M. M. (2011), ''NGO-led Microfinance: Potentials and Challenges in Conflict Areas. *Journal of International Development,* Vol.23 No.5, pp.629 - 640.

Moseley, P., and Rock, J. (2004) ''Microfinance, labour markets and poverty in Africa: A study of six institutions'', *Journal of International Development, Vol.16 No.*3, pp.467–500.

Mudambi, R., and Treichel, Z. M. (2005), ''Cash crisis in newly public Internet-based firms: An empirical analysis'', *Journal of Business Venturing,* Vol.20, pp.543– 571.

Newkirk-Moore, S., and Bracker, S. (1998), ''Strategic management training and commitment to planning: critical partners in stimulating firm performance'', *International Journal of Training and Development,* Vol. 2 No. 2, pp.82–90.

Newman, A., Schwarz, S., and Borgia, D. (2014), ''How does microfinance enhance entrepreneurial outcomes in emerging economies? The mediating mechanisms of psychological and social capital'', *International Small Business Journal,* Vol. 32 No. 2, pp.158–179.

North, D. (1990), *Institutions, Institutional Change, and Economic Performance.* Cambridge: Cambridge University Press.

Osei-Assibey, E. (2011), ''Microfinance in Ghana: A comparative study of the performance of the formal versus informal rural financial institutions''. *Forum for International Development Studies*, pp.1-23.

Parasuraman, A., Zeithamal, V., and Berry, L. (1988), ''SERVQUAL: a multi-item scale for measuring consumer perceptions of service quality'', *Journal of Retailing,* Vol.46 No.1, pp. 12-40.

Permanyer, I. (2014), ''Assessing individuals' deprivation in a multidimensional framework'', *Journal of Development Economics,* Vol. 109, No.C, pp. 106, pp.1-16.

Radhakrishnan, G. (2013). Non-Experimental Research Designs: Amenable to Nursing Contexts. *Asian Journal of Nursing Education and Research, 3*(1), pp.25-28.

Rajendran, K., and Raya, R. (2011), ''The role of non-governmental organizations in microfinance through SHGs-A study in Vellore district of Tamil Nadu. I. *International Refereed Research Journal,* Vol.2 No.4, pp.203-213.

Rambe, P., and Makhalemele, N. (2015), ''Relationship Between Managerial Competencies Of Owners /Managers Of Emerging Technology Firms And Business Performance: A Conceptual Framework Of Internet Cafés Performance in South Africa'', *International Business and Economics Research Journal,* Vol.14 No.4, pp.678-692.

Rauch, A., Frese, M., and Utsch, A. (2005),''Effects of Human Capital and Long-Term Human Resources Development and Utilization on Employment Growth of Small-Scale Businesses: A Causal Analysis'', *Entrepreneurship Theory and Practice,* Vol.29 No.2, pp.681-698.

Raven, P., and Le, Q. V. (2015), ''Teaching business skills to women in Vietnam. *International Journal of Entrepreneurial Behaviour and Research,* Vol.21 No.4, pp. 622-641.

Raymond, L., Marchand, M., St-Pierre, J., and Louise, C. (2011),Re-conceptualising small business performance from the owner-managers perspective. *Communication présentée à la conférence* (pp. 1-21). Montréal: Institut de recherche.

Sabella, R. A., and Analoui, F. (2015), ''Managerial training and development in telecommunication organizations in Palestine'', *Journal of Management Development,* Vol.34 No.6, pp. 685-703.

Scott, W. (1992), *Organizations: Rational, natural, and open systems* (2nd ed.), New York: Englewood Cliffs.

Sekaran, U. (2003), *Research Methods for Business: A Skill-Building Approach.* New York, NY.: John Wiley and Sons.

Sambharya, R., and Musteen, M. (2014), ''Institutional environment and entrepreneurship:An empirical study across countries. *Journal of International Entrepreneurship, Vol.12 No.*4, pp.314–330.

Serviere, L. (2010), ''Forced to entrepreneurship: modelling the factors behind necessity entrepreneurship'', *Journal of Business and Entrepreneurship*, Vol.22 No.1, pp.37-53.

Shahriar, Z. M., Schwarz, S., and Newman, A. (2016), ''Profit orientation of microfinance institutions and provision of financial capital to business start-ups. *International Small Business Journal,* Vol. 34 No.4, pp.532– 552.

Sidek, S., and Mohamad, R. M. (2014), ''Managerial Competencies and Small Business Growth: Empirical Evidence from Microfinance Participants'', *International Journal of Mechanical Sciences,* Vol.21 No.1, pp. 39–59.

Smith, A., Judge, W., Pezeshkan, A., and Nair, A. (2016), ''Institutionalizing entrepreneurial expertise in subsistence economies'', *Journal of World Business,* Vol. 51 No.6, pp. 910–922.

Serrano-Cinca, C., and Gutiérrez-Nieto, B. (2014), ''Microfinance, the long tail and mission drift. *International Business Review* Vol.23 No.1, pp.181–194.

Storey, J. (1994), *Understanding the small business Sector.* London: Thompson Learning.

Singh, D., Gál, Z., Huseynov, R., and Wojtaszek, M. (2018), "Determining the Performance Measurement of SME from Economic Value Added: Study on Hungary, Somogy County". *Scientific Journal Warsaw University of Life Sciences,* Vol.18 No.2, pp.270– 279.

Trapczynski, P., and Banalieva, E. R. (2016), ''The institutional difference, organizational experience,
and foreign affiliate performance: Evidence from Polish'', *Journal of World Business,*
Vol.51 No.5, pp. 826–842.

Wang, Y., and Ahmed, P. (2009), ''The Moderating Effect of the Business Strategic Orientation on E-Commerce Adoption: Evidence from UK Family Run SMEs'', *The Journal of Strategic Information Systems,* Vol.18 No.1, pp.16-30.

Weerawardena, J., McDonald, R. E., and Mort, G. S. (2010), ''Sustainability of nonprofit organizations: An empirical investigation'', *Journal of World Business,* Vol.45 No.4, pp.346–356.

Woller, M. G. (1999), ''Where to Microfinance'', *International Journal of Economic Development,* Vol.1 No.1, 29-64.

Xiang, C., Jia, X., and Huang, J. (2014), ''Microfinance through non-governmental organizations and its effects on formal and informal credit: Evidence from rural China'', *China Agricultural Economic Review, Vol.6 No.*2, pp.182 - 197.

Yunus, M. (1999), *Banker to the poor: Micro-lending and the battle against the world.* New York: Public Affairs.

**Appendix 1: Description of variables**

| Constructs | Variable | Variable Use | Description |
|---|---|---|---|
| Performance | Employment growth | Dependent Variable | Employment growth was measured using a five – year employment data (2011-2015) of the sampled MSEs were captured. The average of these data is used in the regression analysis. |
| | Profitability growth | Dependent Variable | Profitability growth was measured using a five – year sales data (2011-2015) of the sampled MSEs were captured. The average of these data is used in the regression analysis. |
| | Sales growth | Dependent Variable | Sales growth was measured using a five –year profitability data (2011-2015) of the sampled MSEs were captured. The average of these data is used in the regression analysis. |
| Control Variables | Gender | Control Variable | Gender measured using a dummy variable coded as 1(male) and 0 (female). |
| | Business age | Control Variable | Business age was expressed in terms of the number of years since the establishment of the MSE. |
| | Industry category | Control Variable | Industry category was measured using seven industry categories including *(agriculture, construction, hotels and restaurants, transport and distribution, general trading, education and general Services)* |
| | Manager's Education | Control Variable | Manager's education was measured using five categories (*1.no formal education, 2.primary school education, 3.secondary school education, 4. undergraduate degree and 5.postgraduate degree)* |
| | Loan Amount | Independent variable | The loan amount was measured using three (3) items indicating sufficiency of the loan amount for the business, satisfaction with the loan amount and whether the loan amount granted by the FNGO was less than the amount applied for. |

| | | | |
|---|---|---|---|
| Microcredit (Financial Capital) | Loan accessibility | Independent variable | Loan accessibility was measured using three (3)items namely the ability to understand loan requirements, whether loan application and approval process were cumbersome and finally whether loans applied for were timely approved. |
| | Loan cost | Independent variable | Loan cost was measured three main categories of the cost associated with microcredit in Ghana namely loan interest, processing fees and loan deposit (cash collateral). |
| | Loan flexibility | Independent variable | Loan flexibility was measured using three (3) items namely flexibility of repayment schedule, the flexibility of loan repayment amount (instalment) and the convenience of loan term to meet business needs. |
| Entrepreneurship Training (Human Capital) | ET accessibility | Independent variable | Training accessibility was measured using two ( 2) items namely the difficulty in accessing training from FNGOs and the general satisfaction with access to training from FNGOs. |
| | ET frequency | Independent variable | Training frequency was also measured using five items namely satisfaction with the frequency of training provided, whether training does not disrupt planned business activities, whether the frequency of training enabled knowledge |
| | ET content | Independent variable | Training content was measured using four(4) items namely managerial skills, soft skills, technical and operational skills |
| | ET efficiency | Independent variable | Training efficiency was measured using five (5) items namely cost of training, timeliness of training, whether training was well understood by managers, whether training supported manager's personal development and whether training provided by FNGOs helped in resolving identifiable business challenges. |

**Appendix 2: Factor extraction for financial capital (microcredit) construct**

| Total Variance Explained | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.152 | 26.265 | 26.265 | 3.152 | 26.265 | 26.265 | 2.473 | 20.607 | 20.607 |
| 2 | 2.698 | 22.481 | 48.745 | 2.698 | 22.481 | 48.745 | 2.463 | 20.525 | 41.132 |
| 3 | 1.948 | 16.232 | 64.977 | 1.948 | 16.232 | 64.977 | 2.381 | 19.842 | 60.974 |
| 4 | 1.562 | 13.014 | 77.991 | 1.562 | 13.014 | 77.991 | 2.042 | 17.017 | 77.991 |
| 5 | .640 | 5.335 | 83.326 | | | | | | |
| 6 | .471 | 3.926 | 87.252 | | | | | | |
| 7 | .411 | 3.422 | 90.675 | | | | | | |
| 8 | .379 | 3.155 | 93.830 | | | | | | |
| 9 | .338 | 2.814 | 96.644 | | | | | | |
| 10 | .153 | 1.274 | 97.918 | | | | | | |
| 11 | .140 | 1.163 | 99.081 | | | | | | |
| 12 | .110 | .919 | 100.000 | | | | | | |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

**Appendix 3: Scree Plot of financial capital (microcredit) factors**



Scree Plot
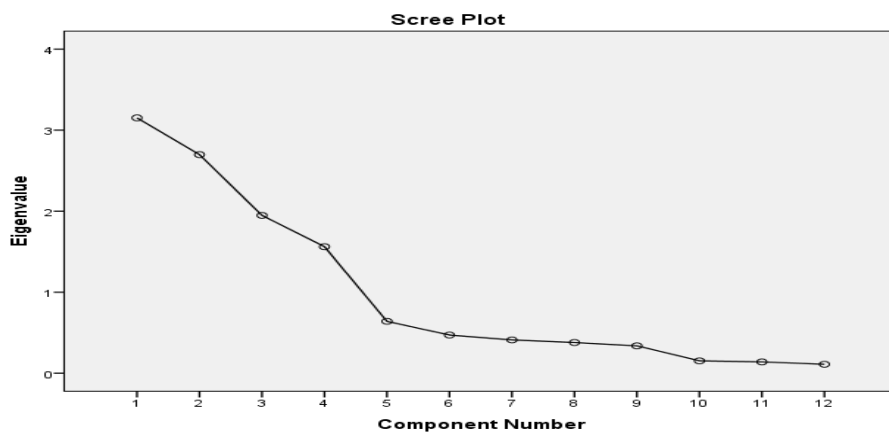
**Appendix 4: Factor extraction for human capital (entrepreneurship training) construct**

| Total Variance Explained | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Compone nt | Initial Eigenvalues | | | Extraction Sums of | | | Rotation Sums of | | |
| | Tot | % of | Cumulati | Tot | % of | Cumulati | Tot | % of | Cumulati |
| 1 | 9.75 | 42.432 | 42.432 | 9.75 | 42.432 | 42.432 | 9.53 | 41.466 | 41.466 |
| 2 | 4.62 | 20.111 | 62.542 | 4.62 | 20.111 | 62.542 | 3.94 | 17.163 | 58.629 |
| 3 | 2.88 | 12.557 | 75.100 | 2.88 | 12.557 | 75.100 | 3.61 | 15.731 | 74.360 |
| 4 | 1.76 | 7.680 | 82.780 | 1.76 | 7.680 | 82.780 | 1.93 | 8.420 | 82.780 |
| 5 | .703 | 3.057 | 85.837 | | | | | | |
| 6 | .621 | 2.702 | 88.539 | | | | | | |
| 7 | .584 | 2.539 | 91.078 | | | | | | |
| 8 | .385 | 1.674 | 92.751 | | | | | | |
| 9 | .320 | 1.390 | 94.141 | | | | | | |
| 10 | .275 | 1.197 | 95.338 | | | | | | |
| 11 | .219 | .953 | 96.291 | | | | | | |
| 12 | .206 | .896 | 97.188 | | | | | | |
| 13 | .135 | .585 | 97.773 | | | | | | |
| 14 | .113 | .491 | 98.264 | | | | | | |
| 15 | .105 | .455 | 98.719 | | | | | | |
| 16 | .069 | .299 | 99.017 | | | | | | |
| 17 | .061 | .266 | 99.284 | | | | | | |
| 18 | .052 | .224 | 99.508 | | | | | | |
| 19 | .036 | .158 | 99.666 | | | | | | |
| 20 | .029 | .125 | 99.791 | | | | | | |
| 21 | .027 | .117 | 99.908 | | | | | | |
| 22 | .016 | .069 | 99.977 | | | | | | |
| 23 | .005 | .023 | 100.000 | | | | | | |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |
| | | | | | | | | | |

**Appendix 5: Scree plot for human capital (entrepreneurship training) factors**