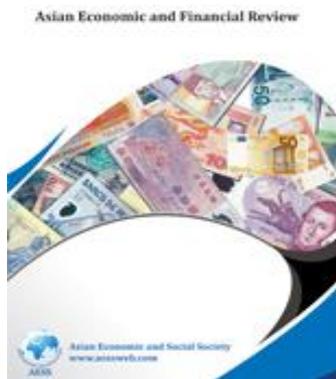


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**Effects of Microfinance on Micro and Small Enterprises (MSEs) Growth in Nigeria**

**Abiola Babajide Ph.D** (Department of Banking and Finance, Covenant University, Ota P.M.B 1023, Ota, Ogun State, Nigeria)

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### Author(s)

#### **Abiola Babajide**

Department Of Banking and Finance,  
Covenant University, Ota P.M.B  
1023, Ota, Ogun State, Nigeria

**Email:** [abiola.babajide@covenantuniversity.edu.ng](mailto:abiola.babajide@covenantuniversity.edu.ng)

## **Effects of Microfinance on Micro and Small Enterprises (Mses) Growth in Nigeria**

### **Abstract**

This paper investigates the effects of microfinance on micro and small business growth in Nigeria. The objectives are: one, to examine the effects of different loan administration practices (in terms of loan size and tenor) on small business growth criteria. Second, to examine the ability of Microfinance-Banks (MFBs) (given its loan-size and rates of interest charged) towards transforming micro-businesses to formal small scale enterprises. The paper employed panel data and multiple regression analysis to analyze a survey of 502 randomly selected enterprises finance by microfinance banks in Nigeria. We find strong evidence that access to microfinance does not enhance growth of micro and small enterprises in Nigeria. However, other firm level characteristics such as business size and business location, are found to have positive effect on enterprise growth. The paper recommends a recapitalization of the Microfinance banks to enhance their capacity to support small business growth and expansion.

**Keywords:** Small Firms, Micro firms, Entrepreneurship, Microfinance, Regression Analysis, Nigeria

### **Introduction**

Since Nigeria attained independence in 1960, considerable efforts have been directed towards the nation's industrial development. The initial efforts were government-led through the vehicle of large industry, but lately emphasis has shifted to Small and Medium Enterprises (SMEs) following the success of SMEs in the economic growth of Asian countries (Ojo, 2003). Thus, the recent industrial development drive in Nigeria has focused on sustainable development through small business development. Prior to this time, particularly judging from the objective of the past National 4-Year Development Plans, 1962-68 and 1981-85, emphasis had been on government-led industrialization, hinged on import-substitution.

Since 1986, government had played down its role as the major driving force of the economy by a process of commercialization and privatization. Emphasis, therefore, shifted from large-scale industries mainly to small and medium scale industries, which have the potentials for developing domestic linkages for rapid and sustainable industrial development.

Attention was focused on the organized private sector to spearhead subsequent industrialization programmes. Incentives given to encourage increased participation in these sectors were directed at solving and/or alleviating the problems encountered by industrialists in the country, thereby giving them greater leeway towards increasing their contribution to the national economy.

Lack of access to finance has been identified as one of the major constraints to small business growth (Owualah, 1999; Carpenter, 2001; Anyawu, 2003; Lawson, 2007). The reason is that provision of financial services is an important means for mobilizing resources for more productive use (Watson and Everett, 1999). The extent to which small enterprises could access fund is the extents to which small firms can save and accumulate own capital for further investment (Hossain, 1988). However, small business enterprises in Nigeria find it difficult to access formal financial institutions such as commercial banks for funds. The inability of the SMEs to meet the standard of the formal financial institutions for loan consideration provides a platform for informal

institutions to attempt to fill the gap usually based on informal social networks, and this is what gave birth to micro-financing. In many countries, people have relied on mutually supportive and benefit-sharing of the social networking of these sectors for the fulfilment of economic, social and cultural needs and the improvement of quality of life (Portes, 1998). Networks based on social capital exist in developed as well as developing countries, including Nigeria.

In order to enhance the flow of financial services to the Micro, Small and Medium Enterprises (MSME) subsector, Government in Nigeria has, in the past, initiated a series of programmes and policies targeted at the MSMEs. Notable among such programmes were establishment of Industrial Development Centres across the country (1960-70), the Small Scale Industries Credit Guarantee Scheme - SSICS (1971), specialized financial schemes through development financial institutions such as the Nigerian Industrial Development Bank (NIDB) 1964, Nigerian Bank for Commerce and Industry (NBCI) 1973, and National Economic Recovery Fund (NERFUND) 1989. All of these institutions merged to form the Bank of Industry (BOI). In 2000, the government also merged the Nigeria Agricultural Cooperative Bank (NACB), the People's Bank of Nigeria (PBN) and Family Economic Advancement Programme (FEAP) to form the Nigerian Agricultural Cooperative and Rural Development Bank Limited (NACRDB). The bank was set up to enhance the provision of finance to the agricultural and rural sector. Government also facilitated and guaranteed external finance by the World Bank (including the SME I and SME II loan scheme) in 1989, and established the National Directorate of Employment (NDE) in 1986.

In 2003, the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN), an umbrella agency to coordinate the development of the Small and Medium Enterprises (SME) sector was established. In the same year, the National Credit Guarantee Scheme for SMEs to facilitate its access to credit without stringent collateral requirements was reorganised and the Entrepreneurship Development Programme was revived. In terms

of financing, an innovative form of financing peculiar to Nigeria came in form of intervention from the banks through its representatives 'the Banker's Committee' at its 246<sup>th</sup> general meeting held on December 21, 1999. The banks agreed to set aside 10% of their profit before tax (PBT) annually for equity investment in small and medium scale industries. The scheme aimed, among other things, to assist the establishment of new, viable Small and Medium Industries (SMI) projects; thereby stimulating economic growth, and development of local technology, promoting indigenous entrepreneurship and generating employment. Timing of investment exit was fixed at minimum of 3 years. By the end of 2001, the amount set aside under the scheme was in excess of 6 billion naira, which then rose to over N13 billion and N41.4 billion by the end of 2002 and 2005 respectively, but stood at N48.2 billion by the end of December, 2008.

Despite all these efforts, the contribution of SME to Nigeria Gross Domestic Product (GDP) remains very poor, hence; the need for alternative funding window. In 2005, the Federal Government of Nigeria adopted microfinance as the main financing window for micro, small and medium enterprises in Nigeria. The Microfinance Policy Regulatory and Supervisory Framework (MPRSF) was launched in 2005; the policy among other things, addresses the problem of lack of access to credit by small business operators who do not have access to regular bank credits. It is also meant to strengthen the weak capacity of such entrepreneurs, and raise the capital base of microfinance institutions. The core objective of the microfinance policy is to make financial services accessible to a large segment of the potentially productive Nigerian population, which have had little or no access to financial services and empower them to contribute to rural transformation.

The microfinance arrangement makes it possible for MSMEs to secure credit from Microfinance Banks (MFBs) and other Microfinance Institutions (MFIs) on more easy terms. It is on this platform that we intend to examine the impact of microfinance on small business growth. Therefore, the study will fill the gap in literature on the impact of both the

financial and non financial services on small business growth and to examine the capability of microfinance to transform small enterprises to small scale industries through their technology/asset related loans.

## **Literature Review**

### **Role of the Entrepreneurs in Business Formation and Growth**

These theories considered differences in attitudes and abilities among individuals as critical issues in determining why some small firms grow and others do not. Two schools of thought, the Austrian School and the Classical Economist were the first to acknowledge the role of the entrepreneur in small business development; they recognise the entrepreneur as an individual with special characteristics. Knight (1921) described an entrepreneur as someone that has the willingness and superior ability to make decisions, raise capital and assume the risk of failure. In the same vein, Schumpeter (1939) added among other things, the fact that an entrepreneur has the superior ability to perceive new market opportunities. He sees the entrepreneur as an innovator.

**According to the Austrian school**, people have certain characteristics that are associated with the productivity for entrepreneurship. Individuals who have more of these characteristics are more likely to become entrepreneurs than those who have fewer. An individual chooses to create a new business so as to maximize his expected utility. This utility is a function of entrepreneurial activity or wage income, and of attitudes that affect the utility that the person derives from entrepreneurial activity, such as one's taste toward work effort, risk, independence, working close to customers, etc. Income, in turn, depends on the individual's ability to generate profit, such as managerial abilities to raise capital, and abilities to perceive new market opportunities and to innovate (Papadaki and Chami, 2002).

**The classical school**, have extended analysis of the decision to start a business to that of the decision to grow the business. According to Davidson (1989, 1991), firm growth is an indication of continued entrepreneurship. Davidson notes that economic theories take the

willingness to grow a business for granted, by assuming profit maximization. However, empirical evidence suggests that small business owners are reluctant to grow even if there is room for profitable expansion and that profitable firms of different sizes co-exist within industries.

According to Papadaki and Chami (2002), theories on small business growth and development view business growth from an organizational life cycle perspective, which sees growth as a natural phenomenon in the evolution of the firm, other perspective sees growth as a consequence of strategic choice. It is obvious that attributes of the business owner, organizational resources and environmental opportunities are crucial in expanding the firm and in overcoming the barriers to the evolution of the firm from one stage to the next. Sexton and Smilor (1997), and Carland et al., (1984) distinguished between a business owner and an entrepreneur. According to them, an entrepreneur is committed to the growth of the business. Growth is the very essence of entrepreneurship," and commitment to growth is what primarily distinguishes small business owners and entrepreneurs.

### **SMEs and Growth**

It is evident from literature that not all small businesses are growth oriented and for certain firms' growth is a voluntary choice (Masurel and Montfort, 2006). An empirical study of SMEs growth pattern by Kolvereid and Bullvag (1996) concluded that growth intentions may be used to predict actual growth, that past intentions are related to later intentions, and that change in growth intentions are associated with changes in growth patterns. Arbaugh and Sexton (1996) provided empirical evidence that most new firms do not grow into large ones and that there is no relationship between the age of a firm and its size. Chaston and Mangles (1997) opined that there is no single strategy to firm growth. Hence, the probability of achieving growth is increased by avoiding excessive emphasis on single-strategy transformation initiatives, and by giving different capabilities priority depending upon the development stage of the firm. They identified three factors that could limit the growth of small business to include ability, need and opportunity. Kolvereid

(1992) concluded that small business entrepreneurs who wanted their firms to grow started their business in order to achieve just that. The process of mutual adjustment between proprietors and their employees was identified by Goffee and Scase (1995) as a major constraint limiting factor to small business growth.

Niskanen and Niskanen (2007) investigated the determinants of growth in a sample of small and micro Finnish firms. Firm growth is examined on a number of firm specific and relationship lending characteristics. The data set provides an excellent opportunity for investigating the effects that firm specific factors have on firm growth. The study investigated the relationship between firm growth and relationship lending variables. They are also able to provide new information on the role that legal form has on firm growth by using more detailed ownership variables. The results on relationship lending effects suggest that an increase in the number of lending banks decreases growth rates in the larger firms and that an increase in the number of banks operating in the county where the firm is located enhances growth of the larger firms and decreases growth rates of the smaller firms. It could, therefore, be argued that close lending relationships enhance growth for all firms, but that only the larger firms in the sample benefit from more competitive banking markets.

Brown, Earle and Lup (2004), employed panel data techniques to analyze a survey of 297 new small enterprises in Romania containing detailed information from the start-up date through 2001. They found strong evidence that access to external credit increases the growth of both employment and sales, while taxes appears as constrain to growth. The data suggest that entrepreneurial skills have little independent effect on growth, once demand conditions are taken into account. The evidence for the effectiveness of technical assistance is weak: only assistance provided by foreign partners yields a positive effect. A wide variety of alternative measures of the business environment (contract enforcement, property rights, and corruption) are tested, but none are found to have any clear association with firm growth.

While the literature shows different perception on enterprise growth, there is a paucity of studies of how financing with microcredit contributes to MSE growth in the specific context of Nigeria. Besides, empirical evidence emerging from various studies about the effect of microfinance on entrepreneurial development as a whole has so far yielded mixed results that are inconclusive and contradictory. Also, none trace the impact of microfinance on small growth. Moreover, the impact of microfinance on enterprise growth has not received adequate research attention in Nigeria. Research also shows that most of the studies on impact of microfinance on enterprise development that have been reported were carried out in industrialized countries except some few cases in some African countries. This mean that there is a major gap in the relevant literature on developing countries particularly Nigeria which happen to be the most populated country in Sub-Saharan Africa (SSA). This study attempts to fill this gap by examining the situation in Nigeria and providing empirical evidence on the effects of microfinance on small business growth in Nigeria. The rest of the paper is divided into four sections. In section II, relevant theories and literature small business growth are reviewed while the methodology of the study is explained in section III. The findings of this study are presented in section IV while section V contains the concluding remarks.

### **Research Design**

A two-method strategy was adopted for this study to enhance the authenticity of the study. The study combined primary survey based data with secondary information from bank records. The idea behind this was to obtain cross-referencing data and some independent confirmation of data, as well as a range of opinions. This research identified two-in-one aggregation or study groups; these are Microfinance Banks (MFBs) in Southwest Nigeria and the Microfinance Banks (MFB) clients who are micro and small enterprise operators, particularly those that have benefited

at one time or the other from the financial and non-financial services rendered by the MFB in Nigeria. According to the CBN record as at March 31<sup>st</sup> 2009, there were 305 microfinance banks in Southwest Nigeria geo-political zone. Out of the 305, only 169 have obtained their final license to operate as microfinance banks. The other 136 are reportedly having provisional approval. For the purpose of this study, the population of Microfinance Banks adopted for the study is the 169 MFBs that have obtained final license to operate as microfinance banks in south-west Nigeria.

The sample frame for this study is determined from the population of MSMEs operators users of MFBs, we rely on the findings of an assessment study carried out by USAID (2005) on financial service demand survey for micro, small and medium enterprises in Nigeria. The findings suggested that only 10% of MSMEs operators have access to microfinance owing to limited number of microfinance institutions in Nigeria (USAID, 2005). Using this parameter, we develop the sample frame for the study as micro and small enterprise operator users of microfinance bank.

In choosing the sampling size and secure representative's responses, the size of the sample was based on statistical estimation theory developed by Bartlett, Kotrlik and Higgins, (2001) for research of this nature and a simple random sampling technique was employed to select 623 enterprises for the study out of which only 502 are useful and upon which the analysis was based.

**Model Specification**

The hypothesis was structured to ascertain the extent to which microfinance facilities can enhance the expansion capacity of small business in the study. This was expressed as:

$$Y = \alpha_0 + \beta_1 EAge_1 + \beta_2 EE_2 + \beta_3 MS_3 + \beta_4 EG_4 + \beta_5 Bizage_5 + \beta_6 Bizform_6 + \beta_7 Bizsize_7 + \beta_8 Bizloc_8 + \beta_9 Bizreg_9 + \beta_{10} ALS_{10} + \beta_{11} ALD_{11} + \beta_{12} ALR_{12} + \beta_{13} LI_{13} + \beta_{14} TT_{14} + \mu \dots \dots \dots (2)$$

**Where**

Y = Small Business Growth (SBG) proxied by annual sales growth rate over the five years of study. It is defined as  $Gr = \{(S_t/S_0)^{1/n} - 1\} \times 100$  where  $S_t$  is the current sales level,  $S_0$  is the base year 2004, n is the number of years considered

for study while Gr is the annual rate of growth. (Niskanen & Niskanen, 2007).

Key predictor of MSEs expansion is given as EAge<sub>1</sub> = Entrepreneur Age, EE<sub>2</sub> = Entrepreneur Education, MS<sub>3</sub> = Marital Status, EG<sub>4</sub>= Entrepreneur Gender, Bizage<sub>5</sub> = Business Age, Bizform<sub>6</sub> = Business form, Bizsize<sub>7</sub>= Business Size, Bizloc<sub>8</sub>= Business location, Biz reg<sub>9</sub> = Business registration, ALS<sub>10</sub> = Asset Loan Size received from Microfinance Bank, ALD<sub>11</sub>, = Asset Loan Duration, ALR<sub>12</sub> = Asset Loan Repayment, LI<sub>13</sub> = Loan Interest, TT<sub>14</sub> = No. Technology Training received by entrepreneur or his staff in the last year,

**Result Analysis**

**Multiple Regression Analysis**

The field survey for this study was carried out between October and December 2009, on factors that influence growth of micro and small enterprises in South-West Nigeria. The first part of the questionnaires was filled by the small business operators using standard definitions of key concepts (particularly to measure such variables as gross profit margin, sales growth, productivity, capital- employed, micro loan and micro savings). The second part of the questionnaire contained information on the business enterprise extracted from bank records with the help of Loan Officers who work directly with the respondents. It is a five year summary of the business enterprise on loan history and savings as well as sales, profits, capital employed and assets.

The study was designed to cover all firms that had stayed with the microfinance bank for a period of at least five years and had received microloan at one point or the other in the period covered. The success of the survey is attributed to the fact that the researcher had the support of the Loan Officers in approaching the enterprise operators. Out of 623 of such enterprises, 502 results were useful. Our main goal is limited to the "internal validity" and issue of assessing "the effect of treatment on the treated." Our micro loan figures were extracted from the banks records directly and not just relying on the respondents for the information. When we segregate the analysis to see the effect common to a segment such as the legal status of the

business, the coefficients are identified off the variation within each sampled firm. The results from this analysis may be generalized only to enterprise similar to those in our sample, that is firms that are consistently been finance by MFBs over a minimum of five year periods and one should be cautious about extrapolations to firms lacking a common statistical support.

### **Microfinance on Small Business Growth by Category of Business**

Table 1 (see appendix) presents results from regressing the average sales growth rate on different variables characterizing the firm and micro financing. The equation in column I of table 1 represents the total sample. In columns II and III we split the sample into small firms and micro firms. Column II presents observations from small firms (firms with more than 10 employees). In column III we present observations from micro firms (firms with less than 10 employees). This classification into small and micro firms is based on the definition applied by the National policy sponsored by SMEDAN in 2007 and adopted for implementation by the National Assembly of Nigeria. Our dependent variable is defined as average sales growth during the five year study period of 2004 – 2008. The constant, which is the intercept, shows that when all the variables are zero, sales will grow at 15.3% for the total sample and at 9% and 16% for small firms and micro firms respectively. The result obtained for the three columns are all significant at 1%.

On impact of owners characteristics variables on expansion capacity of MSEs, the result obtained shows that entrepreneurs age has a positive relation with expansion capacity of the firm but not statistically significant for the three samples. The result obtained for owner's education shows that a unit increases in owners' education will increase sales growth by 0.15 and 0.7 units for total sample and small firms respectively, and they are both statistically significant at 5%. The result obtained for micro firms shows that a unit increase in owner's education will increase sales growth by 0.8 unit but the result obtained is not statistically significant, hence it cannot be relied upon for inference, even though it is correctly signed as

expected in small business theory. The result on gender shows there is a positive relationship between gender and micro firm expansion and it is statistically significant at 5%. The gender of the entrepreneur may also affect firm growth. Male – owned enterprise tend to perform better and over time grow faster relative to female owned enterprise (Daniels and Mead, 1998; Fafchamps & Gabre-Madhin, 2001). Women are often disadvantaged by less education and constrained by social norms which limit their mobility and access to other productive resources (Fafchamps, 2003; Mitra, 2002).

The results obtained on firm characteristic variables shows that business age has an inverse relationship with small business growth and expansion capacity proxied by sales growth. The general pattern between firm age and growth seems to be that young firms are more likely to grow faster. The result shows that a unit increase in firm age will decrease sales growth by 0.01 unit for total sample and 0.07 and 1.9 unit for small firms and micro firms respectively, and they are statistically significant at 1% for total sample and micro firms respectively and at 5% for small firm sample.

This implies that older firms grow less rapidly than younger firms, Davidson et al. (2002), Almus and Nerlinger (1999) also found an inverse relationship between firm age and growth. The results obtained confirm previous findings on the relationship between firm age and growth. The variable takes a negative and statistically significant coefficient in all the three columns suggesting that younger firms grow faster than older firms. On business size proxy by number of paid employee in the business, the results obtained show a positive and highly significant sign for total sample and micro firms, while a negative and statistically significant coefficient for small firms. This suggests that the growth rate initially increases with firm size but then start to decrease after a certain level. The result obtained on relationship between firm growth and firm size in other studies are not equally unanimous, in most studies on small firms, Caves (1998) founds a positive relationship between firm size and growth while Eyiah and Cooks (2003) found a negative relation but they use data on larger firms. The result obtained on business

location shows a positive and high significant coefficient between business location and firm growth for the three samples. Most of the firms in these samples are located in the urban area. Storey (1994) suggests that there are some locations in which firms are more likely to grow faster. He provided evidence using U.K data and proof that firms located in a rural area can be expected to grow faster than those in urban areas. Almus and Nerlinger (1999) use regional population density as their location variable, and found weak evidence that location affects growth. Their findings show that firms located in densely populated areas exhibits higher growth rates.

On business registration status, it was observe from our samples that sampled firms operate as both registered firms and unregistered firms. Results from previous studies show that registered firms grow faster than unregistered firms. In large firms, registration enhances credibility, opens up access to rationed resources and reduces transaction costs when dealing with other firms, thus aiding growth and performance (Sleuwaegen & Goedhuys, 2002). This is interpreted to imply that registered firms owners are more willing to invest in risky ventures that may foster firm growth than unregistered business since most of them are more likely to make use of internally generated funds. Mitullah (2003) argued that unregistered firms are unprotected and the environment in cities is not conducive for business for them. Unregistered businesses in cities are constantly disrupted by municipal authorities in conflict over licensing, taxation, site operation, sanitation, and working conditions. The results obtained for this study show a positive and significant coefficient for total sample and small firms because most of the registered business falls in the two samples but the results obtained for micro firm sample show positive but not statistically significant. Most of the firms in the micro firm sample are unregistered business.

On micro finance variables, results on size of assets loan on expansion capacity of the MSEs show that a unit increase in size of assets loan will increase sales growth by 0.03 and 0.1units for total sample and small firms respectively, but the results obtained were not statistically

significant, this may be because the asset loan given by most microfinance bank is too small, even though it is correctly signed as expected in microfinance theory but not significant. For micro firm sample, the result obtained shows a positive correlation between size of asset loan and firm growth and it is significant at 5%. This implies that asset loan enhance growth of micro enterprise, but the size of the loan is too small for any meaningful impact on small firms. Duration of assets loan shows a positive relation with sales growth for the entire sample, but not statistically significant for total sample and small firms, meaning that the duration of the asset loan is too short for any meaningful impact on MSEs growth. The result obtained for micro firms' shows that if duration of asset loan is increased by one month, annual sales growth will increase by 0.1 unit and it is statistically significant at 5%. This implies that the asset loan duration is suitable for micro firms only.

On repayment of asset loan, the results obtained show a negative correlation with sales growth, which is in support of economic theory but negates micro finance theory because of the frequency of repayment. The result obtained for total sample and small firms revealed that if frequency of repayment is increased by a unit, sales growth decreases by 0.07 and 1.9 units respectively, although it is not statically significant, hence the result cannot be relied upon to make inference. But for micro firms, the result revealed that a unit increase in repayment period will cause annual sales growth to decrease by 0.6 unit and it is statistically significant at 1%. On interest charge on loan, only the result for micro firm is reliable and statistically significant at 5%, but the result for total sample and small firms sample are not statistically significant.

Result obtained on technology related training received by the entrepreneurs, shows that technology related training received by entrepreneurs significantly affect sales growth, thereby enhancing the expansion capacity of MSEs. Specifically, the result obtained shows that a unit increase in technology related training received by the entrepreneur will cause annual sales growth to increase by 0.029 unit for total sample and 1.0 and 0.1 unit for small

firms and micro firms samples respectively. They are all statistically significant at 5% and 1% respectively. Previous study provides strong evidence of a positive association between the use of technology and business performance, with observed differences in profit level across enterprises and sectors reflecting varying innovative environments (Bigsten et al., 2003; Chapelle & Plane, 2005; Daniels, 2003).

The coefficient of determination, that is the  $R^2$  for the three columns is 0.12, 0.11 and 0.17 for the total sample, small firm and micro firms samples respectively while the adjusted  $R^2$  of 0.09, 0.07 and 0.05 shows the variation in the dependent variable (Small Business Growth) jointly explained by the explanatory variables for the three samples. In studies such as this (primary data and multiple regression) emphasis is usually placed on the significant of individual explanatory variables (Gujarati, 1995). The decision rule is that we reject the null hypothesis if the calculated F-value is significant. In this case, the calculated f-value is 0.362 is not significant for all the three samples so we reject our alternative hypothesis and accept our null hypothesis. Hence, the study concludes that, microfinance as practice by Micro-finance Banks (MFBs) in Nigeria does not enhance MSEs growth and expansion capacity. But variables such as Entrepreneur's education, firm age, firm size, firm location and firm registration enhance sales growth, while other factors such as size of asset loan, duration of asset loan and frequency of repayment of loan as practice in Nigeria's microfinance bank do not enhance sales growth.

#### **Multiple Regression Analysis of Effect of Microfinance on Small Business Growth by Kind of Business Activities**

The result on expansion capacity of MSEs was also split into kind of business activities to know the variables that are significant to different kind of trade. To facilitate comparison across different sector of the economy as used in this study, the significance and marginal effects of explanatory variables is discussed in order of appearance across the five models. As expected there is substantial variation of growth performance both within and across individual sectors and firm characteristics as well as

microfinance variables. The observed differences in enterprise growth and performance across sectors reflect the general business environment in which enterprise operate and its effect on specific sector/market structures, including the level of financial and human capital, value added/output per employee, nature and level of competition and ability of firm to adapt their pricing policy to internal and external changes (Fafchamps & Gabre-Madhin, 2001). For example, performance in the manufacturing sub sector is affected by inefficiency, poor regulation and other structural problems including seasonal fluctuations in operations (Fagbenle, Adeyemi, & Adesanya, 2004).

In Table 2 (See appendix), the coefficient on entrepreneurs' age is positive and significant in all models at 5% significant level except in manufacturing and artisans sectors. The positive correlation in all sectors is in accordance with earlier study (see Fazoranti et al., 2006). The entrepreneurs' age signifies the level of contribution the entrepreneur is able to bring into the business. The characteristic table shows that 79% of the total sample is in the economic active age group, that is, age group 25 – 54 years. All things being equal, they have the capacity to contribute significantly to the growth of the enterprises. The coefficient for education is positive and significant at 5% and 1% in all the models except for manufacturing sector where it is not statistically significant. Level of education is important in determining the condition at start-up such as in the form of capital saved from earlier employment and ability to access more capital and accumulate wealth (Makasure et al, 2008). The coefficient for marital status is also positive and significant for trading, artisans and manufacturing sectors and not significant in agriculture and service sectors, 67% of the total sample is married. The coefficient for gender is positive and significant in trading sector at 5%, among artisans also at 5% significant level and at 1% in the service sector. The effect of gender is not statistically significant in manufacturing and agricultural sector. Although literature has it that male owned enterprise tends to perform better and over time grow faster relative to those owned by female entrepreneurs (Daniels and Meads, 1998). Women's inability to perform better in

enterprise management is summarised to women's relative less education and inability to access productive resources but all of the weaknesses are make up for in social capital approach employed in micro-financing (Fafchamps, 2003).

On firm characteristics variable, the coefficient on enterprise age is positive and significant in all models at 5% and 1% across the five samples. The number of years the enterprise had operated in the years preceding the survey (because the data for enterprise age is lag) is positively associated with firm growth. The magnitude of the coefficients across the five models suggests variability in the level of impact enterprise age had on the growth of the enterprise, for example, one year increase in enterprise age among artisans will bring about 1.2 unit increase in growth of the enterprise while it is just 0.4 unit in the trading sector and 0.1 in the manufacturing sector. The coefficient for form of business is positive but not significant across the five samples. The coefficient for business size is positive and significant across the five samples except for agricultural sector. This may be owing to the fact that most agricultural business particularly at the micro and small level like we have in this study make use of family members instead of paid employee who are more motivated and more skillful (Frazer, 2006). The table shows the coefficient for geographical location is positive and significant across the five samples which implies that businesses located in the urban areas are more likely to thrive better in South-west Nigeria. Geographical location can have a substantial impact on microenterprise performance. Urban based enterprises tend to have a better access to a range of resources that are critical to enterprise growth and performance such as infrastructure, working inputs, larger and more dynamic markets, and opportunities for networking with larger firm and within micro enterprise sector (Bogetic and Sanogo, 2005; Fafchamps, 2004).

On micro finance characteristics, the coefficient for size of asset loan shows negative and significant impact for manufacturing and agricultural sectors, while positive and none statistical significant impact for trading, artisan and service sector. The coefficient for duration

of asset loan shows positive but not significant relationship between duration of asset loan and sales growth across the five models except for the service sector which is positive and significant at 1%. On repayment of asset loan, the result obtained shows an inverse relationship between repayment of asset loan and annual sales growth for enterprises in the trading, artisans, and manufacturing sector, the result obtained for agriculture and service sector is positive but not significant. The result obtained is statistically significant for trading, manufacturing and artisans. This implies that attempt to recover asset loan early impact negatively on enterprise in the trading, manufacturing and artisans subsectors. The result obtained on loan interest shows an inverse relationship between loan interest and sales growth in all the sub-sectors but only statistically significant in trading, agriculture and service subsectors. On technology training received, the entire coefficient is positive and significant at 1 and 5% level of significance. The coefficient for manufacturing and agriculture is large at 5.6 and 5.5 respectively, compare to others. This implies that, technology related training received by entrepreneurs translates into small business expansion. The adjusted  $R^2$  for cross section data is accepted at the level it is for all the models, but the overall f-value statistic shows not significant for all the models except for trading sector. This implies that we accept our null hypothesis for all the models except for trading sector alone where we accept alternative hypothesis. This implies that microfinance enhance business growth in trading sub-sector but does not enhance growth in the manufacturing, agriculture, artisans and service sector.

## **Findings and Conclusion**

### **Micro financing and Expansion Capacity of Small and Micro Enterprises**

The main findings of this research revealed that micro-financing as practiced in Nigeria microfinance banks do not enhance growth and expansion capacity of micro and small enterprise in Nigeria. The findings confirmed the views expressed by Olutunla and Obamuyi (2008) that the growth of SMEs is not just dependent on accessing bank loan but accessing

the right size of loan at the right time. The insignificant position of the overall f-statistic led to our decision to accept the null hypothesis for the three samples, which implies that micro finance does not enhance the expansion capacity of small business in Nigeria. Looking at the result critically, it was also revealed that among small firm sample, variables such as technology related training received by the entrepreneur, business location, business age and business registration in that order are the variables that impact significantly on small business growth, none of the micro finance variables was found to have significant impact on small business growth for small firm sample. The result also revealed that variables such as owners' education, loan interest, duration of asset loan, business location, technology related training received and size of asset loan, all impact significantly on micro firm growth but the magnitude of the beta coefficient of micro finance variables are so small.

When the result was split by type of business activities, the result obtained shows variation in the type of variables that impact significantly on small business growth and expansion. In the service sub-sector, only owners' education, gender, business age and size, and duration of asset loan appears to be statistically significant. In the trading sub-sector, repayment of asset loan, loan interest, duration of asset loan and business location and other owner and firm characteristics variables were positively correlated with sales growth and statistically significant too. In the manufacturing sector, it is technology related training received by the entrepreneurs, loan interest, business location, business registration and business age that appears to be statistically significant. Among artisans, the variables that are positively correlated with business growth and statistically significant are repayment of asset loan, duration of asset loan and size of asset loan.

In the agricultural subsector, it is technology related training and business registration that significantly affects sales growth. This corroborated the findings of Makasure et al (2008), that the significance and impact of each of these variables on the probability of an enterprise being profitable varies widely across the different sub-sectors therefore it is difficult

to draw general and hard-and-fast conclusions as to the impact of any one factor. However, if we consider the variation in impact of these factors on the intensity of microenterprise profits across the quartiles within any one sub-sector, it is possible to define a common series of critical factors for sub-sets of firms. One can observe in all the samples, technology related training and business registration seems to be highly significance and correlated with sales growth. Hence, in formulating policy for the MSEs technology related training and mandatory business registration should be given high priority.

The MFBs are supposed to serve members as a source of financial and social support, but their financial capacity is limited. They do not have the capacity to provide credit that will enhance growth and expansion capacity of small business operators or transform small business into small scale industry by supporting investment in technology. As a result, users of the banks remain at the survival level in business development stage incapable of moving to the next level of business development. Many scholars such as Ojo, (2003), Bekele and zeleke (2008) have suggested that it is prudent to integrate MFBs with other larger financing window available such as strategic partners. Integration is of mutually beneficial to both parties as it broadens the market base of banks while providing MSEs with easy access to finance at the same time. This implies that the MFBs will use the social capital feature of the banks to help formal financial sectors to expand their lending base at a lesser cost, while formal financial institutions can provide banks with access to a large number of clients with an adequate information base and a collective collateral guarantee.

Also, the results suggest that both the incidence and intensity of performance vary considerably across sub-sectors. For example, across sectors of the economy, activities related to trading and artisans were both associated with a high growth rate, while the opposite is true of the manufacturing sub-sector. There is even greater variation across firms within each sub-sector.

While a wide range of entrepreneur characteristics (level of education and age), firm-specific factors (most notably business size, business registration, geographical location) and micro finance variables (size of asset loan, duration of asset loan, repayment of asset loan) influence the magnitude of growth, it is notable that the impact of any one of these factors varies. For example, size of asset loan has negative impact on sales growth in the manufacturing and the agricultural sector but has positive impact in other sectors but not significant. Repayment of asset loan also has negative impact on trading, artisans and manufacturing sectors but has positive impact on agriculture and service sector. Because the significance and impact of each of these variables on the growth and performance varies widely across the five sub-sectors it is difficult to draw general and hard-and-fast conclusions as to the impact of any one factor.

This study suggests that policies aimed at promoting the growth of micro and small enterprises should adopt a sectoral approach and, within that, address specific issues that affect enterprises at the lower and upper ends of the spectrum of growth and expansion. Thus, approaches and resources should address the most critical determinants of growth in focal sub-sectors, aiming to augment access to critical resources and, perhaps, overcome the disadvantages that cannot be easily varied.

The study recommends that MFBs should increase the duration of their clients' asset loans, or spread the repayment over a longer period of time, or increase the moratorium. This will enable the clients to have greater use of the loan over a longer period for the acquisition of capital assets and technology.

In order to encourage technology acquisition for MSE expansion, MFBs can categorize their loans into low and high interest loans. The conventional loans to clients can be maintained as high interest loans, while loans for capital assets or technology acquisition should be low interest loans, which can be secured by a mortgage over the fixed asset so acquired by the micro-borrower. To achieve this, the Microfinance Banks should be recapitalized to

enable the banks to support MSEs growth expansion adequately.

We also recommend that enterprise supported by MFBs should be linked up with larger financing window like the Small and Medium Enterprise Equity Investment Scheme (SMEEIS) fund or Strategic Partners for expansion and growth fund after survival. The entrepreneurs could also be linked up with other commercial banks who will service the entrepreneurs through the MFBs based on social capital. Also, greater emphasis should be placed on non-financial services provided by the MFBs. The non-financial services such as, technology related training, entrepreneurial training, pre-loan training, group membership are the main tools traditional microfinance institutions use to enhance their sustainability.

The Government should urgently tackle the problem of infrastructure development and maintenance. These include electricity, water and efficient transportation system which impact greatly on MSE operations. The bureaucratic bottleneck involved in small business registration should also be removed.

Lastly, Government should establish relevant well adapted and appropriately structured institutions and organizations to provide support for MSEs in such aspect as; procurement, supply and distribution of raw material, supply of local/imported machines for use on concessional terms, training in several technical grades, and create favourable market conditions. They should also set up Tool Design Institute and Testing Centres for raw materials and produced goods/service institute as earlier suggested by Ojo (2006).

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**Appendix**

**Table-1:** Multiple Regression Analysis of Effects of Microfinance on Small Business Growth by Category of Business

The effect analysis of microfinance on Small and Micro Enterprises (SMEs) expansion. The dependent variable is sales growth over a five year period between 2004 – 2008. Column 1 presents the result of the total sample, column II and column III split the data into firms with ten or more employees and less than ten employees respectively.

	<b>Column I Total Sample Coefficient t- statistic</b>		<b>Column II Small Firms Coefficient t- statistic</b>		<b>Column III Micro Firms Coefficient t- statistic</b>	
<b>Constant</b>	15.320*	10.561	9.001*	6.581	16.631*	5.588
<b>Owners Characteristics</b>						
Owner's age	0.858	1.002	0.786	1.134	1.231	0.982
Owner's education	0.156**	1.561	0.796*	1.762	0.898	1.052
Marital Status	1.452	0.871	0.239	0.222	1.011	1.016
Gender	0.562	0.113	1.314	1.014	0.886**	1.817
<b>Firm Characteristics</b>						
Firm age	-0.014*	-1.812	-0.075**	-1.615	-1.924*	-1.823
Form of Business	0.210	1.121	0.524	1.002	0.552	1.014
Firm Size	0.111**	1.713	0.022*	1.912	0.381*	1.645
Business location	0.053*	5.569	0.089*	4.225	0.018**	4.164
Business registration	0.027*	3.158	0.052**	2.041	0.045	1.003
<b>Microfinance Characteristics</b>						
Size of asset loan	0.034	1.393	0.167	0.811	0.014**	1.598
Duration of asset loan	4.403	0.187	1.508	1.448	0.108*	1.872
Repayment of asset loan	-0.079	-1.128	-1.911	-0.721	-0.693*	-2.814
Loan interest	0.030	1.393	0.165	0.611	1.014**	2.598
Technology training received	0.029**	1.586	1.057*	1.681	0.114**	2.123
R – squared	0.125		0.116		0.172	
Adjusted R-Squared	0.093		0.079		0.055	
No. of Observation	502		135		367	
F-test statistics	0.362(0.4117)		0.385(0.551)		1.237(0.340)	

**Source:** Field survey, 2009 Note \* = 1% level of significance, \*\* = 5% level of significance  
\*\*\* = 10% level of significance

**Table-2:** Multiple Regression Analysis of Effect of Microfinance on Small Business Growth by Category of Kind of Business Activities

The effects analysis of microfinance on Small and Micro Enterprise expansion by kind of business. Column I to column V are as detailed below.

	Column I Trading		Column II Artisan		Column III Manufacturing		Column IV Agriculture		Column V Service	
	Coef	t-stat	Coef	t-stat	Coef	t-stat	Coef	t-stat	Coef	t-stat
<b>Constant</b>	7.613*	0.000	6.581	0.006	2.071*	3.145	5.128**	1.566	3.633	1.128
<b>Owners Characteristic</b>										
Age	0.218**	1.725	0.003	0.319	0.135	1.049	0.233**	1.644	0.017**	1.830
Education	1.079**	1.807	0.987**	2.624	0.088	1.212	0.311*	1.884	0.308	1.567
Marital Status	1.650**	3.515	0.093**	1.904	0.671**	1.700	1.208	0.890	0.401	1.040
Gender	0.702	1.815	0.123**	1.561	0.004	0.343	0.923	0.332	1.236*	1.756
<b>Firm Characteristic</b>										
Enterprise age	0.415*	1.702	1.230**	1.622	0.113**	2.175	0.059*	1.928	0.073**	1.932
Form of Business	0.710	1.021	0.006	1.402	1.063*	1.058	0.042	0.194	0.022	0.584
Business Size	0.618*	1.813	0.653**	2.402	2.314*	1.888	1.238	0.980	0.149	1.973
Urban location	0.515*	3.266	1.109*	2.115	0.321*	1.821	0.024*	2.879	0.182*	3.491
Rural location	1.045**	3.305	1.413	1.110	0.010*	1.562	0.562*	2.129	1.101	0.497
<b>Microfinance Characteristic</b>										
Size of asset loan	0.409	1.093	0.161	0.511	-0.027*	-1.715	-0.01**	-1.891	0.041	1.226
Duration of asset loan	0.058	0.870	2.022	1.481	0.099	1.141	1.366	0.202	0.010*	3.912
Repayment of asset loan	-0.312**	-1.728	-1.710*	-2.890	-7.502**	-1.913	1.293	1.020	1.331	0.619
Loan interest	-5.755*	2.093	-0.009	-1.411	-0.017	-1.015	-0.41**	-1.961	-3.841*	2.186
Technology training received	0.044**	2.685	1.036*	1.962	5.666*	4.715	5.591**	1.699	1.752*	0.429
R – squared	0.265		0.172		0.179		0.093		0.231	
Adjusted R- Squared	0.213		0.143		0.092		0.052		0.192	
No. of Observation	238		86		54		89		33	
F-test statistics	2.892 (0.0056)		0.821 (0.423)		1.133 (0.118)		0.189 (0.123)		1.182 (0.309)	

**Source:** Field survey, 2009 Note \* = 1% level of significance, \*\* = 5% level of significance  
\*\*\* = 10% level of significance