

1 Entrepreneurs Health and Productivity in Nigeria: Analysis of 2 Microfinance Bank Contribution

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6

7 **Abstract**

8 This paper investigates the effects of microfinance bank health related services on micro and
9 small enterprise owners? productivity. Productivity is measured as output value over resource
10 input value. The paper employed panel data and multiple regression analysis to analyze a
11 survey of 502 randomly selected entrepreneurs whose enterprise are finance by microfinance
12 banks in Nigeria. We find strong evidence that microfinance bank health related programmes
13 have positive correlation with productivity of micro and small entrepreneurs in Nigeria.
14 Participation in health related services such as health education and health finance are found
15 to have positive impact on entrepreneurs? productivity, while microfinance bank linkages with
16 health services provider and entrepreneurs access to health product through microfinance
17 bank are microfinance banks health related services that are yet to be developed well
18 developed by the microfinance banks . The paper recommends that a well structured health
19 seminar and training programmes should be embedded in all Microfinance programme to
20 further enhance productivity of entrepreneurs in Nigeria and partner with Insurance
21 Companies in the country to provide quality health insurance services affordable to MFBs?
22 client. This will guarantee the clients? access the health services when the need arise.

23

24 **Index terms**— Productivity, Health, Microfinance, MSE, Mutiple regression

25 **1 INTRODUCTION**

26 he provision of health services for all in Nigeria has been a growing concern to both the government and the
27 private sector. The huge investment by the government in the sector over the years has not yielded any meaningful
28 result. It has been realized in the recent years that there are limits to which government can singularly provide
29 health care services for all especially in Nigeria where provision of health care services are becoming increasingly
30 difficult to accomplish. Nigeria as a nation has many developmental challenges which have affected all sectors in
31 the economy, the health sector inclusive. In recent times many microfinance institutions are integrating health
32 protection services in their microfinance support services. Studies have shown that microfinance institutions
33 (MFIs) are capable of contributing to health improvements by increasing enhances access to health services
34 through addressing financial, geographic and other barriers (Oxford journal health policy, 2011). In the past few
35 years, microfinance has been widely acknowledged as a successful contributor to the alleviation of poverty and a
36 valuable tool for achieving the Millennium Development Goals. While access to financial services is undeniably
37 powerful, credit and savings products address only an aspect of poverty which is not sufficient to tackle serious
38 difficulties the poor go through when struck with illness and disease. Poverty and ill health are intertwined and,
39 as such, must be addressed together. The poor are unable to afford health care when they are injured or ill, as
40 a result, the poorer the clientele, the more difficult it is to obtain basic preventive and curative health services,
41 and the higher the morbidity and mortality rates. A vicious cycle of poverty and ill health affects the ability
42 of MFI clients to engage in productive activity, repay loans taken from the bank, build assets and grow their

3 LITERATURE REVIEW

43 businesses, which are the conditions necessary for pulling out of poverty. As clients are unable to repay their
44 loans and continue borrowing, MFI sustainability can also be affected.

45 The ability of the microfinance bank clients to access timely and effective health services, can improve their
46 likelihood of preventing disease, recovery from ill health and enhance continuous productivity. MFIs can help
47 realize this change and bring an end to the trap of poverty and ill health by integrating innovative health protection
48 services that leverage the institution's financial services and further its social mission. That is, integration of
49 financial and health related services become valuable to clients and MFIs along social and financial dimensions
50 ??Ostradicky, 2010). Microfinance Institutions has enormous potential as a financially viable mechanism for
51 reaching poor, rural people with simple but life-saving health protection services. Microfinance banks clients'
52 productivity is enhanced when they are healthier and have more knowledge and options to protect their health.

53 Well-established microfinance banks have integrated valuable healthrelated programs such as health savings,
54 health loans, health insurance, health education, group discounts with health providers, mobile healthcare in rural
55 villages, distribution of insecticide-treated mosquito nets, and itself. It is therefore necessary at this junction to
56 undertake an assessment of the extent to which health related services provided by microfinance banks enhance
57 the productivity of entrepreneurs. A number of studies have been carried out on the impact of microfinance on
58 poverty alleviation, some scholars focused on the mechanism by which poverty is reduced. ??opestake, Halotra
59 and Johnson (2001) analysed the impact of microfinance on firm and individual well being. Copestake et al. (2001)
60 focused on business performance and household income to establish a link between the availability of microfinance
61 and overall wellbeing of the poor. Ryne and Holt (1994) provide a meta -analysis of microfinance and focuses
62 on women empowerment, intending to show why various studies conflict in their conclusions as to the impact
63 of microfinance on women empowerment. Buttenheim (2008) examines the relationship between microfinance
64 programs, women empowerment and use of contraceptive, he concludes that microfinance program participation
65 and availability do not uniformly increase contraceptive use, but rather increase a woman's ability to achieve her
66 fertility preferences as measured by desire for more children. Despite popular claims that microfinance has many
67 nonfinancial impacts, it is not expected that microfinance alone impact non-financial knowledge, behaviours and
68 outcomes such as relate to health. The effects on health most likely would be indirect, through improvement of
69 financial ability to access education and health care. Karlan and Morduch (2010) state in a recently published
70 and broad review of microfinance that the evidence so far indicates that finance interventions alone may not be
71 as powerful as 'finance coupled with other interventions such as training and healthcare. A small but growing
72 number of studies that integrate microfinance with other nonfinancial services seems to support the argument that
73 MFI financial services have positive impacts beyond the direct financial benefit, such as women's empowerment
74 and decision making agency (Manderson and Mark 1997;Kim et al. 2007), nutritional status of children (Dunford
75 and MkNelly, 2002) and health outcomes, including use of contraceptives, higher child-survival rates, reduced
76 family violence and increased use of health services (Mohindra 2008). Nonetheless, most MFIs have naturally
77 chosen to focus where their competencies are strongest, on microenterprise credit.

78 There is no doubt that microfinance has increased both in research and practice, in spite of this emphasis,
79 current research did not provide sufficient justification for the link between microfinance health services and
80 entrepreneurs' productivity in developing countries. Besides, the empirical evidence emerging from various studies
81 on the overall effect of microfinance have so far yielded mixed results that are inconclusive and contradictory.
82 The question of whether microfinance related services on entrepreneurs' productivity has not received research
83 attention in Nigeria. Research also shows that most of the studies on impact assessment of microfinance that
84 were reported were carried out in industrialized countries. This means that there is a major gap in the relevant
85 literature on developing countries, particularly Nigeria that is yet to be covered. This study attempts to fill this
86 gap by studying the situation in Nigeria and providing evidence on the effects of microfinance health related
87 services on Entrepreneurs productivity in Nigeria. It is therefore necessary at this junction to undertake an
88 assessment of the extent to which health related services provided by Microfinance Banks enhance Entrepreneurs
89 productivity in Nigeria. That is the overall objective of this paper. The specific objectives are: (i) ascertain the
90 relationship between health education and entrepreneurs' productivity (ii) examine the effects of health related
91 services provided by microfinance banks on the productivity of micro and small entrepreneur in Nigeria (iii) create
92 awareness of the involvement of microfinance institution in provision of basic health services in Nigeria. In order
93 to achieve the above stated objectives, the following research questions are advanced: (i) Is there a relationship
94 between health education received by entrepreneurs and Entrepreneurs productivity? (ii) To what extent does
95 microfinance health related services enhance productivity of micro and small entrepreneurs in Nigeria? (iii)
96 What are the prospects of microfinance banks in provision of health related services in Nigeria? The following
97 null hypotheses are proposed and tested in the course of this study. (i). There is no significant relationship
98 between health education and entrepreneurs' productivity in Nigeria. (ii). Health related services provided
99 by Microfinance banks has no significant effect on the level of productivity of Entrepreneurs in Nigeria. (iii).
100 Microfinance banks' contributions to the provision of health service is not significant.

101 **2 II.**

102 **3 LITERATURE REVIEW**

103 The term 'microfinance' refers to the full range of financial services that low-income people use, including
104 not only credit but also savings, insurance and money transfers. Microfinance institutions (MFIs), as well
105 as development non-government organizations (NGOs) with a strong microfinance component, are increasingly
106 recognized for their capacity to provide effective and sustainable programmes to reduce poverty and associated
107 vulnerabilities such as food insecurity among the world's poorest people (Leatherman, Metcalfe,Geissler and
108 Dunford, 2010). Microfinance has existed, although mostly in the shadows and unseen by Entrepreneurs Health
109 and Productivity in Nigeria: Analysis of Microfinance Bank Contribution health services improves or worsen
110 entrepreneurs productivity is worthy of researching into like we have in this study. In addition, the impact of
111 microfinance health casual observers, since the rise of formal financial systems, and indeed probably predates
112 them. It has only been within the last four decades, however, that serious global efforts have been made to
113 formalize financial service provision to the poor. This process began in earnest around the early to mid-1980s
114 and has since gathered an impressive momentum (Brau and Woller, 2004). Copestake et al. (2001) finds that
115 borrowers who were able to obtain two loans experienced high growth in profits and household income compared
116 to a control sample, but borrowers who never qualified for the second loan were actually worse off due to MFI
117 collection mechanisms. Wydick (1999) finds that upward class structure mobility increases significantly with
118 access to credit. Using the same Guatemala data set in a subsequent study ??2002), Wydick also finds that rapid
119 gains in job creation after initial credit access were followed by prolonged periods of stagnant job creation. Dunn
120 (2001) finds that program clients' enterprises performed better than non-client enterprises in terms of profits,
121 fixed assets, and employment.

122 On health related services impact studies, several studies show that when families have fallen into poverty
123 or remain trapped there, ill health often emerges as a key reason (Narayan 2000;Dodd and Munck 2002). MFI
124 managers clearly see the effects of these health problems on the performance of their clients and more generally on
125 the lives of their households and communities. Moved by their dedication to a social mission as well as the business
126 imperative to have healthy clients, some MFIs have adopted a strategy of offering health-related programmes,
127 including one or more of the following: health-related education (including nutrition and sanitation), health care
128 financing (such as health loans or savings accounts), training community health workers, direct delivery of clinical
129 services, and health microinsurance (Leatherman et al., 2010).

130 Recognizing the vicious cycle of poverty and ill health, and the impact on clients' abilities to repay loans,
131 build assets and pull themselves out of poverty, some microfinance institutions have added nonfinancial services,
132 such as dialogue-based education and a range of health related services and products. In order to make sense of
133 a diffuse and ill-defined field, we propose a simple conceptualization of three principle barriers to microfinance
134 clients utilizing health-related services in resource-poor countries: Knowledge that is, awareness and information
135 for behavior change, (ii), affordability that is financial ability to pay for health care, (iii), availability, that is,
136 convenience of access to effective and safe health services and products.

137 Freedom from hunger (2006) identified four areas of microfinance health related services. The four broad
138 categories are; health education, health finance, linkages to health provider and access to health saving account
139 for surgical procedure. Distance, quality and affordability can be major barriers to timely health care for MFI
140 clients, particularly those in rural areas, where providers are sparse, transportation is difficult, and public develop
141 expertise in health care is scare. The factors related to linkages with health providers are group discounts
142 with health providers, mobile healthcare in rural villages, negotiation of special rates, advocacy for better
143 quality health care and accessibility to health care by providing transport arrangement for health workers in
144 villages. Lastly, access to health care products involve distribution of insecticide-treated mosquito nets, providing
145 affordable financing to enable purchase of higher-costing health products; directly furnishing basic preventive and
146 curative health products, enabling access to products through linkages with health providers and health product
147 manufacturer. These four categories of variables account for most of the health related services provided by
148 Microfinance Institutions.

149 Health education common health topics are malaria fever, diarrhea, HIV/AIDS, breastfeeding, healthy habits,
150 women's sexual and reproductive health, planning for better health, and using health care services. The
151 objectives of health education are prevent and appropriately treat common illnesses, commit to breastfeeding
152 and breastfeeding exclusively for six months, adopt healthy habits to ward off chronic disease, engage in healthy
153 practices for the well-being of mother and baby, prepare their families to cope with the financial impact of illness,
154 and make the most out of available health services.

155 **4 III.**

156 **5 PRODUCTIVITY**

157 Productivity is the measure of how specified resources are managed to accomplish timely objectives as stated
158 in terms of quantity and quality. Productivity may also be defined as an index that measures output (goods
159 and services) relative to the input (labor, materials, energy, etc., used to produce the output). Hence, there are

7 MODEL SPECIFICATION

160 two major ways to increase productivity: increase the numerator (output) or decrease the denominator (input).
161 ??Planert, 2000).

162 Productivity is useful as a relative measure of actual output of production compared to the actual input of
163 resources, measured across time or against common entities. As output increases for a level of input, or as
164 the amount of input decreases for a constant level of output, an increase in productivity occurs. Therefore,
165 a "productivity measure" describes how well the resources Factors related to health finance are general health
166 savings, health loan, health insurance, and special of an organization are being used to produce input ??Inman,
167 2001). Productivity is usually expressed in one of three forms: partial factor productivity, multifactor
168 productivity, and total productivity.

169 The standard definition of productivity is actually what is known as a partial factor measure of productivity, in
170 the sense that it only considers a single input in the ratio. The formula then for partial factor productivity would
171 be the ratio of total output to a single input. Other partial factor measure options could appear as output/labor,
172 output/machine, output/capital, or output/energy. Terms applied to some other partial factor measures include
173 capital productivity (using machine hours or dollars invested), energy productivity (using kilowatt hours), and
174 materials productivity (using inventory dollars). While a multifactor productivity measure utilizes more than a
175 single factor, for example, both labor and capital. Hence, multifactor productivity is the ratio of total output
176 to a subset of inputs: a subset of inputs might consist of only labor and materials or it could include capital.
177 Obviously, the different factors must be measured in the same units, for example dollars or standard hours
178 (Stevenson, 1999).

179 IV.

180 6 RESEARCH METHODOLOGY

181 The study adopts a combination of surveybased data collection using a well structured questionnaire administered
182 to MFBs customers and an in-depth interview session with the bank officials who are directly responsible for
183 providing health related services in the respective MFBs, as well as Focus Group Discussion (FGD) with the MFBs
184 clients. The purpose of such combination is to obtain cross-referencing data and independent confirmation of data,
185 as well as a range of opinions. The theoretical population of the study consists of the entire MSEs in the country.
186 However, the study was restricted to South-West geopolitical zone comprising of six states, the states are Lagos,
187 Ogun, Osun, Oyo, Ondo and Ekiti states. The choice of South-west stems from the fact that the concentration
188 and the predominance of MSEs in this zone are easily identifiable particularly with the inclusion of Lagos state
189 which is the commercial nerve centre of the nation. For effective coverage and lower cost, purposive sampling
190 technique was used to select the banks offering health related services, while simple random sampling technique
191 was used to selected bank clients that participate regularly in microfinance programme for a period of at least two
192 years. A total of 623 entrepreneurs were selected for the study. The sample size was determined using Bartlett,
193 Kotrlik and Haggins (2001) model for determining the minimum returned sample size for any given population.
194 The primary data consists of a number of items in well structured questionnaire that was administered to and
195 completed by the respondents. The decision to form of test -retest method was conducted prior to the actual
196 study. Data collected from the questionnaire were analysed using Pearson Correlation Coefficient and Multiple
197 Regression Analysis.

198 A total of 274 copies of the questionnaire, representing 44% of the total sample size were administered in
199 Lagos State. In Ogun State, a total of 106 copies of the questionnaire were distributed, representing 17% of the
200 sample size. In Oyo 96 (representing 15%) were distributed, in Osun State, 88 copies of the questionnaire were
201 distributed representing 14% of the total sample. In Ekiti and Ondo States 26 and 33 copies of questionnaire were
202 distributed respectively, representing 4% and 5% respectively of the total sample size. The questionnaires were
203 distributed using the geographical spread of microfinance bank in South-west geopolitical zone. In all, a total of
204 502 copies of the questionnaire were returned from the six States out of 623 copies administered. This represents
205 a total response rate of 80.5%. The high return rate achieved from the field survey can be attributed to the
206 support received from the loan/field officers in the banks visited. A total of 53 Microfinance Banks were used for
207 the study and the copies of questionnaire were distributed at an average of twelve (??2) copies of questionnaire
208 per Bank.

209 V.

210 7 MODEL SPECIFICATION

211 The model specification used in this study was based on the hypotheses of the study. This statistical model is
212 presented below to examine the extent to which micro finance banks health related services have enhanced the
213 productivity of Entrepreneurs in Nigeria. The model adopted for this study was developed from the work of
214 Fasoranti, Akinrinola, and Ajibefun (2006) they examined the impact of microcredit and training on efficiency
215 and productivity of small scale entrepreneurs. The model was adapted and modified for this study. $Y = ? o +$
216 $? 1 OC 1 + ? 2 FC + ? 3 MF + u 1 ????? (2)$

217 Model 2 transform into model 3 below $Y = ? o + ? 1 EAge 1 + ? 2 EE 2 + ? 3 Bizloc 3 +$

218 8 DISCUSSION OF RESULT

219 Table ?? (see appendix) shows that 239 (47.6%) of the businesses had been in existence for five years, 195(38.8%)
220 had been in existence for about 6 -10 years, 56 (11.2%) had been in existence for between 11 -15 years, 10 (2.0%)
221 had been in existence for between 16-20 years, while only 2 (0.4%) had been in existence for a period more
222 than twenty years. The majority in the five years time frame implies that the businesses started just around the
223 same time the MFB was officially introduced into the Nigeria financial system. Meaning that the existence of
224 these banks are a catalyst to business start-up five years ago and are also contributive to the growth of the new
225 businesses as well as the expansion of the old ones.

226 On the type of business, the field survey revealed that 238 (47.4%) are involved in trading, particularly
227 retail trading. This confirmed the 2001 country survey carried out by the CBN, where wholesale and retail
228 trading accounted for 49% of non-agriculture microenterprise in Nigeria. This situation is largely due to the fact
229 that retail trading does not require any special skill to start. Also, the dominance of Lagos State in the field
230 survey may be another reason, Lagos State being the commercial nerve centre for the country. It was observed
231 that 86 (17.1%) are artisans, including people involved in hair-dressing, furniture making, tailoring, mechanics,
232 vulcanizers, fashion designing, brick laying, etc. 33 (6.6%) are involved in service industry' the majority of
233 people in this category are people involved in the sale of recharge cards, operators of business centres, providers
234 of educational services, food vendors, etc. Only 54 (10.8%) and 89 (17.7%) are formation. This is to buttress the
235 fact that most of the businesses supported by MFB are one-man businesses which are expected to grow to other
236 forms, such as partnership business or limited liability Company after some years. In relation to the registration
237 status of the businesses, the analysis revealed that 331 (65.9%) are not registered businesses, while only 171
238 (34.1%) are registered businesses. This may be as a result of bureaucratic bottleneck involved in registration of
239 businesses and the dominance of microenterprise in the survey. The survey revealed that 367 (73.1%) are micro
240 enterprises, using the 2007 National policy on MSMEs classification. 135 (26.9%) are small scale enterprise. The
241 2001 country survey revealed that most micro enterprises in Nigeria operate in the informal sector, meaning that
242 they are most not registered business. It is in recent time that the MFBs are persuading business owners to at
243 least register their business name.

244 The table also shows the sources of initial capital of the respondents, 388 (77.4%) started their business with
245 their personal savings, 61(12.2%) started with borrowed funds from friends and family, 13 (2.6%) started with a
246 loan from the bank, while 39 (7.8%) started with gifts and grants obtained from friends and institutions. This
247 confirms the fact that funding for most microenterprises is mainly from individual resources, with a little help
248 from family and traditional mutual fund societies such as Rotational Savings and credit Association (ROSCA).
249 Bank loans are rarely sought and more rarely obtained. The research tried to find out the composition of the
250 initial capital to know the likely capital structure of small business in South West Nigeria. The study revealed
251 that 266 (53%) is purely owners equity, that is the entrepreneur rely mainly on their personally generated funds
252 to finance their businesses. The implication of this is that their growth and expansion is limited in size. Table
253 ???.14 also reveals that 135 (26.9%) combined owners equity and loan which makes for business growth if they
254 are combined in appropriate proportion. Also, 101 (20.1%) make use of loan alone. This implies that such
255 entrepreneurs do not have any stake in the business and as a result, he/she may not be enthusiastic towards
256 ensuring business growth.

257 9 Global Journal of Management and Business Research Vol- 258 ume XI Issue Version I

259 © 2011 Global Journals Inc. (US) XII 2011 December involved in manufacturing and agricultural businesses
260 respectively. This calls for concern, If out of five hundred and two respondents only 54 are involved in production
261 of goods, it is a pointer to the fact that the nation has a long way to go in terms of real economic growth,
262 because no nation develop on mercantile trading and commerce alone. Most of the businesses are sole ownership.
263 420 (83.7%), a typical micro enterprise is operated by a sole proprietor/manager aided mainly by unpaid family
264 members and occasional paid employee and/or apprentice. Fifty six (representing 11.2%) are family businesses,
265 24 (4.8%) are partnership businesses, while 2 (0.4%) are other types of business

266 The research also strived to know what motivate the respondents to start their businesses. The result obtained
267 reveals that to gain financial independence is the main reasons why many Entrepreneurs start their own businesses.
268 283(56.4%) indicated financial independence, 126(25.1) indicated loss of job, 79 (15.7%) to bequeath to their
269 children and 14 (2.8%) gave other reasons such as for self actualization and for economic reasons. The research
270 also discovered that most of the businesses are located in the urban areas 396 (78.9%), the dominance of Lagos
271 in the survey explains this. 106 (21.1%) located in the rural area.

272 10 b) Relationship between Entrepreneurs Productivity

273 and Heath Services a) Business Charactersitics Of Respondents Hypothesis 1 : Is there a relationship between
274 health services and Entrepreneurs' productivity. The first hypothesis is to find out if there is a relationship
275 between health services provided by microfinance banks and Entrepreneurs productivity. Health services here
276 are the combination of health education, health finance, linkage to health service provider and access to health
277 product. Therefore, we tried to find out the direction and the significant level of the relationship that exit

11 C) MULTIPLE REGRESSION ANALYSIS OF EFFECT OF

278 between the two variables using the Pearson correlation test. With SPSS, we computed a Pearson correlation
279 test between the two variables, health service provided and Entrepreneurs' productivity. The result obtained
280 as shown in Table 2 (see appendix) shows that there are 502 cases which implies that there are no missing
281 cases. The Table also shows a correlation coefficient of .331 and it is positive, this implies that the Pearson
282 correlation coefficient of (.331) is positive indicating a low correlation between health services provided by micro
283 finance banks and Entrepreneurs' productivity, that is, health related services provided by MFBs contribute
284 significantly to Entrepreneurs productivity in Nigeria but its level of contribution is still at the low level. The
285 coefficient of determination which is the square of the r indicate 10.9%, that is health services provided by MFBs
286 contributes only 10.9% to Entrepreneurs productivity in South west Nigeria which is very low, but has a positive
287 contribution. This is significant at 1% significant level. Therefore, our null hypothesis which is there is no
288 significant relationship between health service provided by MFBs and Entrepreneurs' productivity is rejected,
289 while we accept our alternative hypothesis, that is, there normality, linearity homoscedasticity. There is a low
290 positive correlation between the two variables, $r = .33$, $n = 502$, $p < .0005$, with low level of Entrepreneurs
291 productivity associated with positive but low level of MFB health related service.

292 11 c) Multiple Regression Analysis of Effect of

293 Microfinance Health Service on Small Business Operators Productivity by Category.

294 Table 3 below presents results from the regression of microfinance health related service variables on
295 entrepreneur's productivity. The result in column I of the Table represents the total sample. In columns II
296 and III we split the sample into small and micro firms. Column II presents observations for small firms (i.e.
297 firms with more than 10 employees) and column III presents observations for micro firms (i.e. firms with less
298 than 10 employees). The constant, which is also the intercept, reveals that when all the variables are zero,
299 the entrepreneur's productivity will be 37.7% for the total sample and 17.9% and 8.6% for small and micro
300 firms respectively. The result obtained is The relationship between health services provided by MFBs and
301 Entrepreneurs' productivity in Nigeria was investigated using Pearson product moment correlation coefficient.
302 Preliminary analysis was performed to ensure no violation of the assumption of significant at 1%. The coefficient
303 for entrepreneur's age is negative and significant at 1% for the total sample and 5% for small firms and micro
304 firms. This is expected: as the entrepreneur advances in age, he becomes less productive. The result shows that
305 when an entrepreneur's education increases by one unit, his productivity will increase by 7.7 units for the total
306 sample and by 6.2 and 8.6 units for small and micro firms respectively. The result obtained is significant at 1%
307 for the total sample and small firms and is significant at 5% for micro firms. This implies that education has a
308 positive correlation with productivity; the significance of education hinges on the fact that it enhances the stock
309 of human knowledge and management skills which consequently enhance productivity. This confirms the findings
310 of Fasoroti et al., (2006) that the entrepreneur's level of education enhances productivity.

311 On firm characteristics variables, the coefficient for business location (urban) is positive and significant at 5%
312 for total sample and small firm sample respectively, but not significant for micro firms, while the coefficient for
313 business location (rural) is positive but not significant for the three samples. On effects of business registration
314 on entrepreneurs' productivity, registration of business tends to be size-based. The coefficient for business
315 registration is positive and significant for the total sample and small firms at 1% and 5% significance level,
316 but positive and insignificant for the micro firm sample. In small firms, registration enhances credibility, opens
317 up access to rationed resources and reduces transaction cost, thus enhancing the growth and productivity of the
318 firm. In micro firms on the other hand, registration may not enhance productivity appreciably. For instance,
319 operating outside the purview of government affords firms more flexibility in input use as local conditions change
320 (Sleuwen and Goedhuys, 2002).

321 On micro finance health related variables, the coefficient for health education shows that a unit increase in
322 health education service provided by MFB increases the Entrepreneurs' productivity by 5.0, 3.1 and 2.0 units for
323 total, small and micro samples ant they are all significant at 1% for total sample and 5% for small and micro
324 samples. This implies that health education service provided by MFBs such as seminars/workshops, health
325 screening and circulation of education related pamphlets goes a long way to affect Entrepreneurs productivity
326 positively. Any training programme properly, well structured and diligently provided enhances entrepreneurs
327 productivity (Fasoranti, 2006).

328 The coefficient for health finance is positive and significant for total sample and micro firms at 10% significant
329 level. The result shows that health finance significantly affects the Entrepreneur's productivity in the total
330 sample and micro firm's sample, but it is not insignificant for the small firm sample. This implies that health
331 finance service provided by MFBs is not samples but not for the small firm sample. The decision rule is that
332 when calculated F-value is significant we reject the null hypothesis and accept the alternative hypothesis. We
333 therefore conclude that, health related services provided by MFBs enhance the productivity of micro entrepreneurs
334 especially and the factors that positively affect entrepreneur's productivity are Entrepreneurs' education, business
335 location (urban), business registration, health education and to an extent health finance while other factors such
336 as linkage with health service provider, and access to health products are not significant in South West Nigeria.
337 This is in line with the conclusion reached by Fasoranti (2006) that the significant determinants of technical
338 efficiencies of bakers, furniture makers and burnt brick makers were age of operators, business experience, and
339 level of education, training experience, credit access, working capital and initial capital outlay. And that well

340 structured entrepreneurship training programmes complemented with easy credit access can facilitate the desired
341 improvement in the efficiencies of small scale business people.

342 **12 VII.**

343 **13 FINDINGS a) Microfinance and Entrepreneurs' Productiv-
344 ity**

345 The result obtained on this aspect of the study shows the magnitude of beta coefficient for owners' characteristics
346 variables Entrepreneurs' Education, some firm characteristics variables such as business location (urban) and
347 business registration, and MFB health related service such as health education and health finance are found to
348 have significant effects on entrepreneurial productivity for the total sample in South-West Nigeria. When the
349 sample was split into small firms and micro firms, the same variables were seen to have significant impact on
350 entrepreneur's December commensurate to the business activities of small firm operators. The result obtained
351 on linkages with health services provider (such as group discounts with health providers, mobile healthcare in
352 rural villages, negotiation of special rates, advocacy for better quality health care and accessibility to health care
353 by providing transport arrangement for health workers in villages) is positive but not significant for the three
354 samples, this is understandable for many reason, the MFBs are currently facing a lot of problems. The result on
355 access to health service product also is positive but not significant for the three samples. Most of the MFBs are
356 not keen in providing such services now crisis in the Microfinance subsector is clouding most of the activities of
357 the banks.

358 **14 Global**

359 The coefficient of determination, that is, the adjusted R 2 for the three samples are 0.48, 0.22 and 0.52 for the
360 total sample, small firm and micro firms respectively. This is acceptable for a cross-sectional data, like we have
361 for this study. The overall statistic is significant at 1% for the total sample and the micro productivity, but the
362 order of impact varies significantly. The overall statistics of 4.119, 1.218 and 3.103 for total sample, small firm
363 and micro firm respectively led to our decision to reject our null hypothesis for total sample and micro loan and
364 accept our null hypothesis for small firm samples. Our null hypothesis states that MFBs health related services
365 does not have significant effects on Entrepreneurs level of productivity in South-West Nigeria.

366 VIII.

367 **15 CONCLUSION AND RECOMMENDATIONS**

368 The international development community has shown keen interest and enthusiastic support for microfinance
369 programs in recent decades. With its emphasis on poverty alleviation, family welfare, women's empowerment
370 and entrepreneurial development, the practice of microfinance certainly offers considerable promise for improving
371 the health and livelihood of many of the world's poor. In recent times many MFIs are offering health related
372 services to compliment the financial services as health issues are found to have effect on individual poverty level.
373 This paper has attempted to add to the microfinance program evaluation literature in the following areas.

374 First, the study explore in details the probable relationship between health related services provided by
375 microfinance banks and the Entrepreneurs productivity and goes further to examine the specific factors that
376 that affects entrepreneurs productivity in Nigeria. In doing so the study finds compelling evidence that there is
377 a significant positive relationship between health services provided by MFBs and entrepreneurs productivity in
378 Nigeria. This is a departure from much of the microfinance literature that links participation in microfinance
379 programme to poverty alleviation without finding out the specific factors that makes for poverty alleviation.
380 While the study finds that there is a positive relationship between microfinance health services and entrepreneurs
381 productivity, the study reveals specifically that microfinance health related services do not have significant impact
382 of productivity level of small scale entrepreneurs'. It would be fruitful in future studies to explore the other
383 hypothetical pathways between microfinance programs and probably reproductive health outcomes.

384 Secondly, the study extends the literature on microfinance programs and entrepreneurs productivity in Nigeria,
385 a country with high poverty index and poor health service delivery. Due to different gender dynamics, cultural
386 influences, economic environments and program approaches to health care service in Nigeria, the study has
387 succeeded to find the linkages between microfinance health services and entrepreneurs productivity.

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395 influences, economic environments and program approaches to health care service in Nigeria, the study has
396 succeeded to find the linkages between microfinance health services and entrepreneurs productivity.

15 CONCLUSION AND RECOMMENDATIONS

397 In this study, we have estimated the effects of MFBs health related services on entrepreneurs' productivity
398 and the significant policy variables influencing the productivity of small and micro entrepreneurs in Nigeria. Our
399 findings show that there exist some level of inter and intra group variations of productivity among various sectors
400 and categories examined. This signals that there is room for improvement in productivity of micro and small
401 business entrepreneurs in Nigeria. Among small scale entrepreneurs' the significant variables are Entrepreneurs
402 education, business location and business registration, same variables applies for micro entrepreneurs. We
403 conclude that a well structured health XII 2011 December The international development community has shown
404 keen interest in and enthusiastic support for microfinance programs in recent decades. With its emphasis on
405 poverty alleviation, family welfare, women's empowerment and entrepreneurial development, the practice of
406 microfinance certainly offers considerable promise for improving the health and livelihood of many of the world's
407 poor. In recent times many MFIs are offering health related services to compliment the financial services as health
408 issues are found to have effect on individual poverty level. This paper has attempted to add to the microfinance
409 program evaluation literature in the following areas.

410 First, the study explore in details if there is any relationship between health related services provided by
411 microfinance banks and the Entrepreneurs productivity and goes further to examine the specific factors that
412 that affects entrepreneurs productivity in Nigeria. In doing so the study finds compelling evidence that there is
413 a significant positive relationship between health services provided by MFBs and entrepreneurs productivity in
414 Nigeria. This is a departure from much of the microfinance literature that links participation in microfinance
415 programme to poverty alleviation without education and innovative health finance services enhance productivity
416 of micro and small scale entrepreneurs in Nigeria. We therefore recommend that; 1. Health related services
417 offered by MFBs especially health education and health finance should be well entrench into MFBs services.
418 The significance of health education is that it helps to bring about behavioural changes in Entrepreneurs which
419 goes a long way to enhance their productivity. Also the Microfinance Banks should be recapitalize to enable
420 them provide more health finance entrepreneurs on easy terms. 2. MFBs should assist their clients by providing
421 health education and provide information on government health programmes in the country. Such MFBs health
422 related service should be strengthened and properly funded and delivered too. MFBs can partner with health
423 organizations such as health care centres to provide client-focused health education to their clients. 3. Banks
424 should engage in target site selection and means testing before they are sited in a particular location. This will
425 enable the banks to develop appropriate health financial product that will suit the need of the entrepreneurs in a
426 particular location rather than offering blanket services that will not have positive impact on Entrepreneurs
427 productivity and performance. 4. Entrepreneur's level of education is found to have positive effects on
428 entrepreneurs' productivity; Entrepreneurs should therefore be encouraged by the MFBs to improve on their
429 current level of education by engaging in adult education or lifelong learning; as this will have the potency to
430 increase their level of productivity. 5. MFBs can partner with Insurance Companies in the country to provide
431 quality health insurance services affordable to MFBs' client. This will guarantee the clients' access to health
432 services when the need arise. The effect analysis of microfinance health service on Entrepreneurs' productivity.
433 Productivity is measured as output over resource input at time t. The result of the total sample is presented
434 in column I, the data is later split into two, result of firms with equal or more than 10 employees is presented
435 in column II i.e (small firms), while result of firms with less than 10 employees (i.e micro firms) is presented in
column III. 1 2 3 4 5

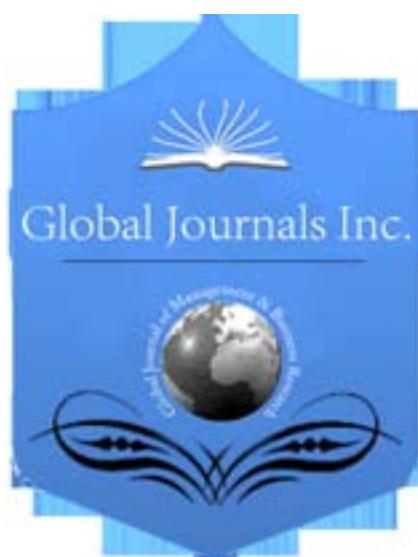


Figure 1: Entrepreneurs

structure the questionnaire is predicated on the need to reduce variability in the meaning possessed by the

responses. To ensure the validity and reliability of the questionnaire used for the study, experts in the field of microfinance were consulted to look at the questionnaire items in relation to its ability to achieve the stated objectives of the research, level of coverage, comprehensibility,

logical and for
suit-
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prospective respondents. A pilot test which took the

Figure 2:

2

Source: Field Survey (2010)

**Correlation is significant at the 0.01 level (2-tailed).

Figure 3: Table 2 :

3

		Total	502	100
Business Location	Urban Area	396	78.9	
	Rural area	106	21.1	
	Total	502	100	
Motivation for starting a business	Financial independence	283	56.4	
	Loss of Job	126	25.1	
	To bequeath to children	79	15.7	
	Others	14	2.8	
	Total	502	100	

Source : Field survey, 2010

Figure 4: Table 3 :

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436 .1 APPENDIX

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