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Determinants of Demand for Microcredit among Grain Traders in Southwestern States, Nigeria

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Abstract: *This paper examines critically the key factors influencing demand for microcredit among grain traders in Southwest states, Nigeria. Multistage sampling technique was employed for the study. Two states were randomly selected from the six states in South-western Nigeria. This was followed by random selection of two Local Government Areas (LGAs) from these states. Thereafter, a random selection of rural and urban markets in each of the selected LGAs based on Probability Proportionate to Size (PPS) was done. In all, 500 grain traders were sampled using PPS, with 492 traders having detailed information used for the analysis. Data were collected on grain traders' social-economic characteristics, social capital and microcredit variables using structured questionnaire. Data were analyzed using descriptive statistics and multinomial logit model. The results revealed that ₦67, 480.13 was granted as loan representing about 46.0% of the total credit needs of the traders while a trader had to wait for 2 weeks and a day before getting the credit. The result further showed that social capital variables (trust index, decision making index, labour contribution, meeting attendance index and heterogeneity index) and credit variables (interest rate charged, credit distance and payback period) significantly explained traders demand for credit. The study suggests that social network of the grain traders needs to be improved on for them to have better access credit to enhance their income.*

Keywords: *Microcredit, Social capital variables, Multinomial logit, Grain traders*

I. Introduction

There is overwhelming evidence that low access to formal credit persists in most developing economies including Nigeria (Brata, 2005). Grain marketing requires considerable investment of fund in the area of bulk purchase, development of storage facilities and processing facilities. Lack of access to credit and inadequate fund to expand businesses often discourage prospective grain traders from buying their products in bulk. The inadequacy of fund prevents grain traders from expanding their business in order to reduce costs due to economies of scale.

Microcredit is the extension of very small loans to the unemployed, to poor entrepreneurs and to others living in poverty that is not bankable. These individuals lack collateral, steady employment and a verifiable credit history and therefore cannot meet even the most minimum qualifications to gain access to traditional credit (Tata and Prasad, 2005). The intention of microcredit institutions is to help poor people and those denied access to credit to overcome poverty and to fund income-generating activities for self employment. It is emphasized that credit to small and medium enterprises has been an important instrument in fostering the development of industrialization and improving the efficiency of the enterprise as well as expanding productivity. For any business to grow credit is essential; lack of credit is a barrier to investment and the growth of income of traders. Commercial banks are reluctant to give loans to the private sector, especially SMEs, not because the sector is perceived risky nature of the small scale businesses and lack of government guarantee schemes to cater for the loan.

The inability of the formal credit sources to satisfy existing credit demand gave greater prominence to informal institutions that could meet the demand of short term credit that small and micro entrepreneurs usually need to enhance their production efficiencies. CBN (2005) reports that in Nigeria, the formal financial system provides services to about 35% of the economically active population while the remaining 65% are excluded from access and often served by the informal financial sector, through the Non-Governmental Organization (NGO), microfinance institution, money lenders, friends, relatives and credit unions. This level of service disparity between the two sources of credit to meet credit needs of small and micro enterprise may have underlined the importance of need oriented financial system for trading development and by implication economic development. The emergence of demand for short-term credit especially among traders will most likely lead to the development of an informal unit to meet the demand for credit. The failure of many government-subsidized credit programmes to reach the targeted groups has prompted the emergence of alternative means of administering credit so as to reduce the access problem. In Nigeria, several microfinance institutions (MFIs) have been established and have been operating towards resolving the credit access problem of the poor particularly those who engage in petty business. That informal finance is more important than formal

finance has been proven by different approaches used to measure its magnitude in different countries, namely Chipeta and Mkandawire (1992) for Malawi and Aryeetey and Gockel (1991) for Ghana. Important lesson learned from informal financial institutions is its degree of flexibility and creativity which accounts for the high degree of success.

In Nigeria, Balogun and Yusuf (2011) have shown that research on demand for credit among rural household is still few in developing countries. However, most of studies (Olaoye et al. 2009, Ajani and Tijani, 2009) affirm the importance of transaction cost, collateral risk, and asymmetric information in demand for credit. Other studies such as Mohamed (2003); Guiso et al., (2004); Okurut, (2006); Mpuga, (2008) and Balogun and Yusuf (2011) addressed the issue of access without referring to effective demand. This study focused on demand for credit among the grain traders in the southwest Nigeria.

II. Materials And Methods

2.1 Area of study

This study was carried out in southwest geopolitical zone of Nigeria. The zone falls on latitude 6^0 to the North and latitude 4^0 to the south. It is marked by longitude 4^0 to the West and 6^0 to the East. It is bounded in the North by Kogi and Kwara states, in the East by Edo and Delta states, in the South by Atlantic Ocean and in the West by Republic of Benin. The zone is made up of six states: Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. It is characterized by a typically tropical climate with distinct dry season between November and March and a wet season between April and October. The mean annual rainfall is 1480mm with a mean monthly temperature range of 18^0C -24^0C during the rainy season and 30^0C-35^0C during the dry season. The zone has a land area of about 114, 271Square kilometres, representing approximately 12 percent of Nigeria total land mass. The total population is 27,581,992 and predominantly agrarian and more than 96% of the population is Yoruba (NPC, 2006). Farming constitute the main occupation of the people with notable food crops including cassava, maize, cowpea, rice, sorghum, millet, yam and banana and cash crops like cocoa, oil palm, rubber, coffee, kolanut, while a good number of the people engage in trading on various agricultural produce, either on retail or wholesale basis. Some of the people engage in non-farm economic activities, like craft making, carpentry, bricklaying and civil service.

2.2 Sources of data and sampling procedure: Primary data were collected from grain traders with the aid of well structured questionnaire. Some of the data include socio-economic and demographic characteristic, membership of associations, participation in the local level institution activities and credit activities of the grain traders. A multistage sampling technique was employed for this study. Oyo and Ogun states were randomly selected from the six states in the southwestern Nigeria. In the second stage, twelve and eleven Local Government Areas (LGA)s respectively were randomly selected from these states using the probability proportional to size of these LGAs.

The proportionality factor used in the selection of LGAs is stated as:

$Xi = n/N*23$ …….....… (1)

Where Xi= number of LGAs to be sampled from a state

n = number of LGAs in the particular state

N = total number of LGAs in two states

The desired total number of LGAs for the two states is 23

At the next stage, there was a random selection of rural and urban markets in each of the selected local government. The last stage of the sampling involved the random selection of grain traders in each of the selected rural and urban markets. The number of grain traders chosen is a function of the number of grain traders available in a particular market. However, a total of five hundred grain traders were interviewed while only four hundred and ninety two completely filled the questionnaires that were used for analysis.

2.3 Analytical Tools:

This study employed a number of analytical tools based on the objectives of the study. The tools include: descriptive statistics and multinomial logit model.

2.3.1 Descriptive statistics:

Descriptive statistics such as tables, frequencies, mean and percentages. The descriptive statistic was used to profile the socioe-economic and social capital variables of the grain traders in the study area.

2.3.2 Multinomial logit model:

In order to determine the factors affecting access to microcredit among the grain traders, a multinomial logit (MNL) analysis was used. It was carried out to model relationships between a polytomous response variable and a set of regressor variables. According to Rodriguez (2003), the MNL model is quite applicable to

this study because it is employed when individuals make choice among three or more alternatives and with each case it is assumed that all the alternative are mutually exclusive. The multinomial logit models estimate the effects of the explanatory variables on a dependent variable with unordered response categories. The advantage of multinomial logit is its computational ease and also it is relatively robust, as measured by goodness of fit or prediction accuracy (Mpuga, 2004 and Mpuga, 2008). The various sources of credit from which grain traders could access credit are classified as the dependent variables. It is supposed that the dependent variable D_{it} can take on one of j categories 1, 2,-----, k (different sources of microcredit). There are five distinct categories namely: traders' association, cooperative society, ROSCAS, microfinance banks and family and friends. It is assumed that all the alternative microcredit sources are mutually exclusive (Mpuga, 2004, Mpuga 2008, Balogun, 2011).

Let Pr (D_{it} = M/X) be the probability of observing outcome M given X, the probability model for D_{it} can be constructed thus:

$$\Pr(D_{it}=M/X) = \frac{\exp\ \beta_o + \beta_1 X_{2i} + ...\beta_k X_{mi}}{\sum_{j=1}^{k} \exp(\beta_{o\lambda} + \beta i_j X_{2i} + ... + \beta_{kj} X_{ni}} \quad \ldots\ldots (2)$$

For j = 1,2,……..k. The parameters are not all identified since more than one set of parameters generates the same probabilities of the observed outcome unless we impose constraints on the model which is achieved by setting parameters, for example, those of the first choice category j = 1 to be all zero: $\beta_{oi} = \beta_{11} = \beta_{ki} = 0$. In other words, parameters of the first choice category are used as the base against which the other choices are compared. In this study, the first choice category against which other choices are compared is cooperative society. The choice can be arbitrary and this opportunity can be used to make comparison between any groups of alternatives categories. The log likelihood function for the multinomial logit can be written thus:

$$\ell = \sum_{i=1}^{n}\sum_{j=1}^{k} di_j Log(P_{ij}) \quad \ldots\ldots (3)$$

Where dij is a dummy variable that takes the value 1 if observation i has chosen alternative j; 0 otherwise
The first - order conditions are:

$$\frac{\delta \ell}{\delta \beta_{kj}} = \sum_{i=1}^{n} (d_{ij} - Pi_j) X_k j \quad \ldots\ldots (4)$$

The multinomial logit model can also be expressed and interpreted in terms of the odds, that is the odds of outcome m versus outcome n given X, indicated by (1)m/n (X), equal to n given X, indicated by (i) m/n (x), equal to

$$\omega_{m/n}(xi) = \frac{\Pr(y_i = m/x_i)}{pr(y_i = n/x_i)} = \frac{\exp(x_i\beta_m)/\sum_{j=1}^{j}\exp(x_i\beta_j)}{\exp(x_i\beta_n)/\sum_{j=1}^{j}\exp(xi\beta_j)} = \frac{\exp(x_j\beta_m)}{\exp(x_i\beta_n)} \quad \ldots\ldots (5)$$

Combining the exponent leads to the odds equation

$\omega_{m/n}(xi) = \exp[x_i(\beta_m - \beta_n)]$…….. (6)

Taking logs shows that the multinomial logit model is linear in the logit:

$Ln\omega_{m/n}(x_j) = \exp[x_i(\beta-\beta_n)]$…….(7).

The difference $\beta m - \beta n$, called the contrast, is the effect of x on the logit of outcome m versus outcome n. Since the model is linear in the logit, it is fairly simple to compute the partial derivative:

$$\frac{\delta \ln \omega_{m/n}(x)}{\delta x_k} = \frac{\delta x(\beta_m - \beta_n)}{\delta x_k} = \frac{\delta x \beta_m}{\delta x_k} - \frac{\delta x \beta_n}{\delta x_k} = \beta_{km} - \beta_{kn} \quad \ldots\ldots (8)$$

Which allows us to interpret β_{km} - β_{kn} units thus: for a unit change in x_k, the logit of outcome m versus outcome n is expected to change by β_{km} - β_{kn} units, holding all other variables constant.

As suggested by Maitra and Ray (2000), the coefficients in this model are difficult to interpret, so the relative probability of Y = j in relation to the base category Y = 0 is given by the Relative Risk Ratio (RRR) or odds ratio. This parameter estimates measure the impact of a unit increase in the relevant explanatory variable on the log odds ratio of the particular state in relation to the baseline category i.e. cooperative society.

An odds ratio equal to 1 suggests that the explanatory variable leaves the dependent variable unchanged. If the odds ratio is greater (less) than 1, it implies that the effect of explanatory variable is to increase (reduce) the dependent variable (Long, 1997).

In this case, the choice of source of microcredit is then modeled as a function of social-economic and demographic characteristics. This can be presented as a general form equation:

$Z_{it} = f(Xi)$ …… (9)

Where Z_{it} takes on values 1, 2,……..,k, if individual i chooses alternative j at time t. The categorization is done because of the inherent ease of accessibility.

The MNL model is however operationalized empirically with the following equations.

$Z_{ij} = \alpha_i + \beta_i X_j + \beta_i X_j + \text{----------} + \beta_i X_j + \varepsilon_i$ ..... (10)

The dependent variable Di is when traders source microcredit from source i and zero when otherwise. Thus Z_0, Z_1, Z_2, Z_3, Z_4, Z_5, Z_6 and Z_7= probabilities of traders selecting different microcredit sources.

X_j……X_n represent vector of the explanatory variables where n = 1---------18

β_i…….. β_n represent the parameter or coefficients

ε_i represents the independent distributed error term and α_0, α_1, α_2…..shows the intercept or constant term. The explanatory variables were selected based on (Balogun, 2011, Ajani and Tijani, 2009, Mpuga, 2004).

The Explanatory Variables include:

Traders Characteristics:

X_1= Gender of the traders (D = 1 for male, otherwise D = 0)
X_2 = Age of the traders (years)
X_3 = Marital status of the traders (D = 1 if married, otherwise D = 0)
X_4 = Household size of traders
X_5 = Years of formal education of the traders (years)
X_6 = Primary occupation (D = 1 if trading, otherwise D = 0)
X_7 = Interest rate on loan (%)
X_8 =Time lag
X_9 = Distance between dwelling place and source of credit (Km)
X_{10} = Payback period

Social capital Variables:

X_{11} = Level of Trust (%)
X_{12} = Social cohesion (%)
X_{13} = Membership density of traders in association (Number)
X_{14} = Decision making index (%)
X_{15} = Cash contribution of traders to association (Naira)
X_{16} = Labour contribution of traders to association (man-day)
X_{17} = Meeting attendance index of traders in association (%)
X_{18} = Heterogeneity index of associations (%)

Social capital dimensions description

The social capital (SC) variables that were used include: membership density of traders, heterogeneity index of associations, meeting attendance index, cash contribution of traders, decision making index, labour contribution, level of trust and social cohesion. The measurement of each is as described below.

Membership density: This is measured by the number of active memberships of each trader in existing associations. A complete inventory of all associations was made at local level institutions; each trader was then given that inventory and asked which associations they were a member of. In other words, the proportion of membership of associations by individuals is found and rescaled to 100. (Grootaert,(1999), Balogun,(2011).

Heterogeneity index: The questionnaire identifies the three most important associations for each trader. For those associations, a number of supplementary questions were asked including the internal homogeneity of the group. This was rated according to twelve criteria: neighbourhood**,** kin/family group, occupation, economic status, religion, political group, gender, age, educational level, cultural practices, belief and trust. On that basis, for each of the factors a yes response was coded 2 while no was coded 1 (Lawal et al.2009, Balogun, 2011, Akinyemi et al, 2012 and Durojaiye et al, 2013) A maximum score of 24 for each association represents the highest level of heterogeneity. The score of the three associations were averaged for each trader by dividing by maximum score 72 to obtain the index. The resulting index was then multiplied by 100 (whereby a zero value represents complete homogeneity and 100 correspond to the highest heterogeneity).

Meeting attendance index: A priori it would appear that membership in an association is of little value if one does not attend the meetings with other group members. This index was measured by finding the number of times members of association actually met as a group over a period of time This is obtained by summing up of attendance of the individual members at meeting and relating it to the number of scheduled meetings of the associations. The value is multiplied by 100.

Cash contribution: All other things being equal, it is presumably a sign of greater interest in the association if one is willing to pay membership dues. This was achieved by taking records of payment of membership dues and other contributions. The summation of the total cash contributed to the various associations, which the traders belong was calculated.

Decision making index: It has been argued that associations, which follow a democratic pattern of decision-making, are more effective than others. This measures participation of the traders to the decision making process. The questionnaire asked association members to evaluate subjectively whether they were "very active" "active" or "not very active" "passive" "very passive" or not participating in the group's decision making. This response was scaled from 4 to 0 respectively, and averaged across the three most important groups in each respondent. The summation was calculated from subjective responses from the respondents' members on their rating in participation in decision making in three important associations to them. The responses were averaged across the three associations and multiplied by 100 for each trader.

Labour Contribution: This is the number of days that individual members belonging to association claimed to have worked for their associations. This represents total numbers of man- hour's days worked by individual members.

Level of trust: This is the willingness of party (trustor) to be vulnerable to the actions of another party (trustee) based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party. This study focused both on generalized trust (the extent to which one trust people) and on the extent of trust in specific types of people. Trust is also viewed in the context of specific transactions, such as lending and borrowing. Answers to each trust questions are used to generate an index using Principal Component Analysis.

Social cohesion: This is defined as ability to secure the long-term well being of all members of a society, including equitable access to available resources, respect for human dignity with due regard for diversity, personal and collective autonomy and responsible participation (Council of Europe, 2005). These are aggregated and are used to generate an index using principal component analysis.

III. Results And Discussions

Table 2 shows that 60.8% were female while the remaining was male. Majority of grain traders in the study area are predominantly female across the credit categories. The mean age of grain traders was 43.3 years. This indicates that grain traders in the southwestern Nigeria are mature and are in their active and productive ages. In case of marital status, majority of the grain traders (85.2%) are married, while the remaining is either single or widowed. Cultural practices and socio-economic environment contribute to making married people to be tagged responsible and so respected in society (Balogun 2011). The table also shows that 65.1% of the respondents practiced monogamy while remaining (34.9%) practiced polygamy. Monogamy is common among the traders that accessed credit from friends and relatives while polygamy is practiced among the traders that accessed credit from traders association. The table reveals that fewer traders (11.6% and 11.2%) have household sizes of 1 -3 members and greater than 8 members respectively. The result further shows that majority of the grain traders (76.8%) in the study area have household size of between 4 and 8 persons per household. The mean household size in the study area was about 6.0 persons per household.

Table 2: Sex, Age, marital status, Family type and Household Size of grain Traders

	Traders	Community	Cooperative	ROSCAS	Friends and Relatives	Banks	Pooled
Variable	%	%	%	%	%	%	%
Sex							
Male	43.7	16.7	28.6	36.4	53.9	85.7	39.2
Female	56.3	83.3	71.4	63.6	46.1	14.3	60.8
Total	100.0	100.0	100.0	100.0	100.0	100.00	100.0
Age							
<30	6.3	0	9.0	18.2	23.0	0.0	10.8
30-40	21.7	16.7	27.6	45.4	15.4	33.3	30.1
41-50	34.1	83.3	43.8	27.3	30.8	52.4	38.6
51-60	28.1	0	16.8	9.1	15.4	14.3	17.3
>60	9.38	0	2.8	0.0	15.4	0.0	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	47.2	45.8	43.3	40.2	45.3	44.1	43.3
SD	9.93	4.2	8.7	7.3	13.9	5.7	9.4
Min	28.0	38.0	20.0	30.0	21.0	33.0	20.0
Max	65.0	50.0	65.0	54.0	65.0	54.0	80.0
Marital status							
Married	87.4	100.0	87.8	81.8	87.4	70.1	85.2
Single	6.3	0.0	5.6	9.1	6.3	29.9	08.1
Widowed	6.3	0.0	6.6	9.1	6.3	0.0	06.7

Divorced	0	0.0	0.0	0.0	0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Family Type							
Monogamous	43.7	50.0	67.4	45.5	70.1	68.2	65.1
Polygamous	56.3	50.0	32.6	54.5	29.9	21.8	34.9
Total	100.0	100.0	100.0	100.00	100.0	100.0	100.0
Household size							
1-3	12.5	11.1	7.1	18.3	0.00	19.1	11.6
4-8	81.3	83.3	85.2	71.7	69.2	61.9	76.8
>than 8	0.0	0.0	7.7	0.0	30.8	19.0	11.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	6.1	5.5	6.7	6.0	6.1	5.8	6.0
SD	3.6	2.2	1.1	2.2	2.5	3.5	2.9
Minimum	3.0	2.0	3.0	2.0	2.0	2.0	2.0
Maximum	18.0	18.0	1.4	18.0	16.0	16.0	18.0

Source: Field Survey 2011

Educational level and primary occupation of grain traders are shown in Table 3. The level of education may indicate productivity potential both in farming and non farming enterprises (Abdulahi and Delgado, 1990). The more educated the individual is, the harder he/she works and the more profit earned. The number of years of formal education is known to influence the behavior, values, exposure and opportunities of individual. The result of educational status revealed that 15.2% of the grain traders have no formal education and majority (52.6%) was educated to primary school level. About 27.9% of the respondents had secondary education while 4.3% had tertiary education (college of education, polytechnic or university education). However, most of the grain traders that had tertiary education patronized microfinance banks. The implication is that they are the category of traders that could write the necessary paper work that is required by the banks before credit could be granted. The table also shows the distribution of grain traders by primary occupation and reveals that majority (92.1%) of the respondents' major occupation is trading. While only 7.9% of them engaged in other occupation (civil service, crafts/Artisan and farming).

Table 3: Educational level, Major occupation and Primary occupation of Grain Traders

	Traders	Community	Cooperative	ROSCAS	Friends and Relatives	Banks	Pooled
Variable	%	%	%	%	%	%	%
Educational level							
No formal	15.6	16.7	16.8	27.3	23.1	4.8	15.2
Primary completed	50.0	50.0	50.2	27.3	46.1	57.1	52.6
Secondary completed	28.1	33.3	30.6	45.4	30.8	28.6	27.9
Tertiary completed	6.3	0.0	2.4	0.0	0.0	9.5	04.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	7.8	7.3	7.1	7.3	7.1	9.6	7.7
SD	3.6	3.7	1.1	5.2	4.2	3.5	3.9
Minimum	0.0	2.0	0.0	0.0	0	0	0
Maximum	16.0	12.0	15.0	12.0	12.0	16.0	16.0
Primary Occupation							
Trading	78.13	83.33	89.80	100.0	100.0	100.00	92.07
Others	21.87	16.67	10.20	0.00	0.00	0.00	7.93
Total	100.0	100.0	100.00	100.0	100.00	100.0	100.0

Source: Field Survey 2011

Table 4 reveals the credit characteristics of the grain traders in the study area. The result shows that average interest rate in the study area were 4.8%. The distribution of the interest rates charged by the credit sources show that cooperative society charged the highest interest rate and the least is credit from relatives and friends. Grain traders travel an average of 1.23 kilometers to get to the financial institutions for credit. The farthest credit source to traders is Community Association. Microfinance banks and Cooperative societies are nearer sources of credit to the traders. Payback period for loans was about seven months. Credits from community associations have the longest payback period of eight (8) months while other credit sources have payback period of less than seven months. The implication is that these loans are short terms and borrowers are expected to invest their loans in business activities that are capable of yielding quick returns. The time lag for credit is the period between when a loan is applied for and when money is given. The time lag period is used to process the loan application, or wait for the next meeting of the loan approval committee or wait for the next

revenue drive which may be the next meeting day, or the period used to investigate the borrower and the market situation (Agom, 2001). The time lag for credit was two weeks and one day on average. ROSCAS were found to have longest time lag (3.82 weeks) among the credit sources while the least was community association (2.17 weeks).The result shows that an average of ₦145, 489.30 was requested as loan by the grain traders while only ₦67, 480.13 was approved by the credit institutions. The Granted/Requested ratio is 0.46 (gap in credit request). Following from this, credit demanded is not commensurate with credit supplied as less than half of the amounts requested as loan from credit sources are granted.

Table 4: Credit Characteristics of Grain Traders

	Traders' Association		Community Association		Cooperative Association		ROSCAS		Relatives & Friends		Microfinance		Pooled	
Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Interest charged	6.25	4.212	1.67	0.58	9.41	4.08	4.54	1.72	3.38	1.38	5.38	2.88	4.797	1.31
Credit distance (Km)	2.17	1.83	2.79	2.59	1.96	1.77	2.24	0.92	1.66	0.15	0.51	0.26	1.23	0.92
Payback period (Month)	4.65	2.58	8.00	3.09	6.92	4.37	6.00	3.95	4.61	3.07	3.81	1.89	6.51	4.17
Time lag (week)	3.15	1.13	2.16	1.72	3.74	1.14	3.818	1.47	3.38	1.26	3.76	0.70	2.13	1.99
Amount Required (Naira)	96718.75	7231.14	26000.0	8747.5	184257.7	2554.6	127272.7	14033.5	80015.38	7929.5	358671.4	19372.0	145489.3	16417.7
Amount Granted (Naira)	41406.25	9005.62	24000.0	3372.8	100224.5	23624.6	87272.7	8016.25	34015.38	6296.4	127961.9	2596.6	67480.13	6764.8
Credit Shortfall	0.43		0.92		0.54		0.69		0.43		0.36		0.46	

Source: Field survey, 2011

The result of the multinomial logit model is presented in Table 5. The result showed that social capital variables (trust index, decision making index, labour contribution, meeting attendance index and heterogeneity index) and credit variables (interest rate, credit distance and payback period) are important variables in demand for credit. However, the coefficients of interest rate were negative and significant for traders association and relative and friends. Thus a percentage increase in interest rate decreases the odds of accessing credit from traders association and relatives and friends by 86.54% and 38.12% respectively. The coefficients of the distance from the credit source and grain traders dwelling place were positively significant for traders association and ROSCAS. Thus, odds ratio of access to credit increases the farther the traders dwelling place. The implication is that irrespective of distance, traders would pursue credit because of probably their dire need and shortage in supply. The result was a deviant from natural demand that says increase in distance leads to decrease in quantity of credit demanded (Mpuga, 2004 & 2008). The coefficients of payback period of the traders from all the credit sources were negative and significant at. This indicates that a unit increase in payback period of traders will decrease the probability of sourcing credit from all the sources. The implication is that, a longer payback period will decrease the credit volume and lower credit supply. The coefficient of trust index is positive and significant at 5 percent for traders accessing credit from ROSCAS. This implies that a unit increase in trust index will lead to increase in odds of traders accessing credit from ROSCAS by 193.7% ($P<0.1$).Trust that can be described as confidence in the reliability of others is imperative in accessing credit from ROSCAS. However, decision making index has a positive significant coefficient ($p<0.1$) for traders sourcing credit from microfinance banks. This implies that as percentage participation in decision making of traders increases, the probability of their access to credit from microfinance banks will also increase 1.1%. This may be due to the fact trader that actively participate in decisions in their local association shows some level of commitment and this has placed him in better position to get their share of credit before others. Labour contribution is negatively significant in accessing credit from ROSCAS and relatives and friends but positively significant among traders sourcing credit from traders association. The negative coefficient disagrees with Ajani and Tijani (2009) that as

more labour is contributed into association activities, the likelihood of accessing credit increased. The coefficient of meeting attendance index is positively significant for traders sourcing credit from microfinance banks implying that as the percentage of scheduled meetings attended by the traders increases, their probability of access to credit from microfinance banks increases. Meeting attendance is a sign of commitment. It might mean that only those who actively participate in networks can capture the gains. Heterogeneity index is positively significant in accessing credit from ROSCAS. In this respect, as diversity increases among the traders in association so also there will be an increase in the odds of accessing credit from ROSCAS by 117.9% (P<0.05)

Table 5: Estimation of determinants of demand for credit using multinomial model

Explanatory Variable	Traders' Association		ROSCAS		Relatives & Friends		Microfinance Banks	
	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio
Sex	0.4605 (0.90)	1.5849	-0.5072 (-0.41)	0.6022	1.8370 (1.14)	6.2774	3.2779 (3.70)***	26.5194
Age	0.0202 (0.69)	1.0204	-0.2264 (-2.29)**	0.7974	-0.0124 (-0.16)	0.9877	0.0860 (1.49.)	1.0899
MaritalSt	0.1500 (0.32)	1.1618.	0.9665 (1.09)	2.6286	0.0345 (0.03)	1.0351	-19.0519 (-3.41)***	5.32.e-09
Hhsize	0.1149 (1.19)	1.1218	0.2356 (1.33)	1.2657	0.3470 (1.34)	1.4148	-0.0063 (-0.04)	0.9937
Yrsch	0.0542 (0.81)	1.0557	-0.1115 (-0.55)	0.8945	0.0330 (0.17)	1.0335	0.0568 (0.52)	1.0584
Pryoccpat	0.7644 (-1.17)	0.4656	26.9393 (3.02)***	5.01e+11	19.8794 (1.58)	4.30e+08	20.6130	8.96e+08
Incharge	0.1458 (-2.40)**	0.8654	-0.2407 (-1.63)	0.7861	-0.9645 (-3.38)***	0.3812	-0.0603 (-0.64)	0.9415
Timlag	-0.2922 (-1.32)	0.7466	0.4013 (0.75.)	1.4938	0.2061 (0.37)	1.2289	-0.0929 (-0.29.)	0.9113
Credistance	0.2828 (2.81)**	1.3268	0.6520 (1.93)*	1.9193	0.0706 (0.23)	1.0731	-0.4886 (-1.65)	0.6135
Paybkperiod	-0.1679 (-2.10)**	0.8454	-0.2684 (-1.77)*	0.7646	-0.4859 (-1.96)*	0.6152	-0.4057 (-2.87)**	0.6665
Trustindex	-0.2544 (-0.54)	0.7754	2.9637 (2.57)**	19.3697	-1.7489 (-1.07)	0.1740	-0.1555 (-0.24)	0.8560
Coheindex	-0.3698 (-0.68)	0.6909	-2.0556 (-1.49)	0.1280	0.4590 (-0.32)	0.6319	0.6760 (0.86)	1.9660
MembershipD	-0.01161 (-1.17)	0.9885	-0.0352 (-1.10)	0.9654	-0.0207 (-0.67)	0.9795	-0.0042 (-1.11)	0.9958
Decindex	-0.0021 (-0.11)	0.9979	-0.0593 (-1.56)	0.9424	0.0037 (0.07)	1.0037	0.0483 (1.98)*	1.0495
Cashcontrib	-0.0251 (-1.57)	0.9752	-0.0057 (-0.20)	0.9943	-0.0060 (-0.19)	0.9940	0.0284 (1.58)	1.0288
LaborContrib	0.0113 (2.13)**	1.0193	-0.2857 (-2.28)**	0.7515	-0.0650 (-1.83)*	0.9371	-0.0278 (-1.52)	0.9726
Meeting attend	-0.0113 (-0.68)	0.9888	0.0325 (0.88)	1.0330	0.0798 (1.61)	1.0831	0.0420 (1.92)*	1.0429
Heterindex	0.0075 (-0.17)	0.9926	0.1649 (1.68)*	1.1792	0.0377 (0.27)	1.0384	-0.0440 (-0.60)	0.9570
Constant	1.4667 (0.31)		-28.8303		-17.8979		-10.0027	
Observation	273							
R^2	0.5022							
Log-Likelihood	-130.5844							

Absolute value of z statistics in parentheses, * significant at 10%, ** significant at 5% and *** significant at 1%
Base category in the dependent variables is the cooperative.
Source: Field survey, 2011

IV. Conclusion And Recommendation

The justification of this study is based on determinants of demand for microcredit among grain traders in Southwestern states, Nigeria. Based on the empirical evidence emanating from both descriptive and inferential statistics employed for this study, it is evident that credit demanded is not commensurate with credit supplied; only about half of the grain traders had access to credit. Also, traders decisions on whether to access credit are mainly determined by social capital variables (trust index, decision making index, labour contribution, meeting attendance index and heterogeneity index) and credit variables (interest rate, credit distance and payback period). It is also evident from the result that traders are eager to source credit from most of the credit sources regardless of the credit distance thereby explaining the importance of credit for enterprise development among traders. Social capital has significantly influenced the amount of credit available from

different sources. Policy makers interested in addressing credit accessibility of traders in Nigeria should consider not only the existing social capital but also the social structure of the society.

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