International Scholars Journals

African Journal of Tropical Agriculture ISSN 2375-091X Vol. 3 (5), pp. 156-162, May, 2015. Available online at www.internationalscholarsjournals.org © International Scholars Journals

Full Length Research Paper

A survey on the economic and demographic determinants of migration and receipt of remittances in rural Nigeria

Adesuwa T. Bola

Department of Forestry and Wood Technology, Afe Babalola University, Ado Ekiti, Nigeria. Email:T.bola@abuad.edu.ng

Accepted 30 April, 2015

This study uses NLSS, 2004 data collected for rural Nigeria to estimate a multinomial logit model of the economic and demographic determinants of migration and receipt of remittances in rural Nigeria. Findings showed that most of the human capital variables are statistically insignificant. However, for internal remittances, households with more educated members at the secondary school level (X_2), age of household head (X_4), Number of males over age 15 (X_7), zone 1, 2, 3 and 5, Land size (X_{11}), are positive and significantly associated with internal migration receiving internal remittances. Likewise, for international remittances, households with more educated members at the university level (X_3), age of household head (X_4), and Land size (X_{11}) are positive and significantly associated with receiving international remittances.

Key words: Migration, remittances, rural Nigeria, multinomial logit.

INTRODUCTION

It is estimated that more than 1 billion people around the world live in conditions of extreme poverty (UNDP, 2005). Approximately, three quarters or 75% of this population lives in rural areas and are dependent on agricultural activities to survive (IFAD, 2007). Although, they are often very context-specific. Common causes of poverty and food insecurity in rural communities include natural disasters (drought and flooding etc), civil conflict and structural inequalities. Such phenomena limit these populations' access to resources and opportunities to secure a sustainable livelihood. When local solutions are scarce or non-existent, poor families living in rural areas will often resort to 'sending' a family member to a nearby urban centre or abroad in search of remunerated work. Due to migration and subsequent urban growth, Lagos, a city in Nigeria, which did not appear in the list of fifteen largest cities in 1950 occupied the fifteenth position in 1995 and is expected to jump to number three positions in 2015 with over 24 million inhabitants (Todaro, 1997). As regards movement outside Nigeria, there has been a remarkable increase in emigration to Europe, North America, the Middle East and South Africa from the 1980's following economic downturn, introduction of liberalization measures and emergence of repressive military dictatorship (Adedokun, 2003).

Once abroad, migrants send remittances to their households back home in order to ensure their basic necessities are met. Remittances are the funds that migrants transfer from their destination country to their country of origin. Such transfers may be made on a regular basis and/or sporadically in the event of emergencies or special events by using both formal channels such as banks and remittance agencies and informal channels, such as the personal transport of items by the migrants themselves or migrating friends and relatives.

In fact workers' remittances have become a major source of external developmental finance. It is estimated that migrant remittances flowing to developing countries now surpass official development aid (ODA) receipts in many developing countries (Ratha, 2003). Migrants' remittances are currently ranked as the second largest source of external inflows to developing countries after foreign direct investment. For example, in 2001, official

development finance transfers to developing countries were about US $ 57 billion (OECD, 2003); this compares with recorded global remittances of US $ 72.3 billion the same year (World Bank, 2003). Over the last decade, Nigeria is the single largest recipient of remittance in sub-Saharan Africa (Maimbo and Ratha, 2005). Nigeria receives between 30 and 65% of remittance to the region and 2% of global flow (Orozco, 2003). Remittance from Nigerians in various parts of the world was USD 2.8 billion in 2004 (World Bank, 2004), ranking second only to oil exports as a source of foreign exchange earnings. Nigeria was among the top 20 developing countries recipients of remittance in 2003 (Ratha, 2005). Commercial bank executives report that in 2006, the recorded flows were estimated at US $ 4.2 billion dollars, representing 700,000 transactions and a 30% increase from 2005 (Orozco and Millis, 2007). According to Nigeria, (Muse, 2008), remittances from Nigerians abroad hit $ 17.9 billion in 2008.

The overwhelming majority of remittances in Nigeria are person-to-person flows mainly from the United States, the United Kingdom, Italy, and other Western European countries. Most transfers are through Money

Transfer Organizations (MTO's). Currently 21 out of 25 banks operating in Nigeria have agreements with MTOs. Fifteen banks work with Western Union, five with Money Gram, and one with Coinstar and Vigo Corporation (Vigo is owned by Western Union). Estimate of internal remittance is not known. Some economists believe that inflows from abroad have been a key factor to the stability of Nigerian naira against other international currencies in the past two years. According to DFID (2006), the main destination of remittances to Nigeria is Lagos, which receives about 60% of the flows, followed by Abuja receiving 15%. However, they are not necessarily the final destination of the funds. It is common for beneficiaries from smaller towns and villages to come to large cities to collect remittances. Estimate of remittances to rural as opposed to urban has not been given; increased rural out-migration presupposes that a substantial remittance flows to the rural area.

This paper aims to examine the economic and demographic factors influencing migration and reception of remittances. The study proceeds in five parts. After the introduction, the study discusses the theoretical underpinnings of migration and reception of remittances. It went further to present the data set, after which the predicted incomes are then incorporated into the migration model, which is specified and estimated. Finally, the findings of the study were summarised.

THEORETICAL EXPOSE

A high proportion of internal and international migration in the Third World is caused by individuals seeking better economic opportunities. Internal migrants, usually coming from rural areas stream into Third World cities seeking higher incomes in the industrial and service sectors of the economy. Responding to similar stimuli, international migrants seek improved earnings in employment located outside of their home countries.

Over the years, many studies have tried to identify the economic determinants of internal and international migration. Responding to the Harris and Todaro model (1970), some economists have tried to explain Third World migration by focusing on the 'pull' of differential expected earnings between origin (rural) and destination (urban) areas (House and Rempel, 1980; Falaris, 1979; Carvajal 1974). In these analyses, the rate of internal migration is typically related to aggregate characteristics of the origin and destination regions, such as average wage, education and employment rates. These studies face several problems, most notably that of data aggregation. Adams (1993) argued that while the explanatory variables in these studies relate to the total population of a particular region, migration is typically an individual decision made on the basis of the income that one expects to receive given his/her own specific human capital characteristics, such as age, education and skills. But recent studies emphasized that migration decisions are not taken by an individual in isolation but are influenced by the actual or intentional migration choices in one's peer group (endogenous effects) or by the group's specific characteristics (contextual effects).

Historically, there has been little explicit modelling of these types of externality in migration (migrant networks, peer influences, immigrant clusters, herd behaviour, chain migration).However, recent contributions show both theoretically (for example, Epstein, 2002) and empirically (for example, Bauer et al., 2006; Epstein and Gang 2004; Munshi, 2003) that social influences have a significant impact on the migrant's decisions about when and where to migrate (for example, Epstein, 2002). The use of aggregate census data thus tends to mask and even obscure critical parts of the migration decision-making process. Cognisant of such problems in more recent years of economic demographers have started paying attention to the 'push' factors involved in migration. While past efforts to test migration models have relied mainly on data gathered in destination (urban) areas, new efforts have now been made towards collecting and analysing data gathered in origin (rural) areas (Bilsborrow et al., 1987; Brown and Goetz, 1987; Findley, 1987). Such studies have tried to relate migration to a host of household variables, such as education of household head, employment of household head, gender of household head and landholdings of households etc. While illuminating, these 'origin level' studies all fail to provide any analysis of the studies inspired by the Harris and Todaro model (1970) as regards the key economic variable in any migration decision, namely income or earnings. Without any information on income (here, remittances) in origin or destination areas, these studies

cannot be used to test the purely economic rationale behind any individual migration decision.

A large amount of academic discourse focuses on the selection bias, that is, does migration tend to occur more among wealthier families that may be more mobile, or among the poorer who have a lower opportunity cost of migration. Scholars disagree about the direction of the selection bias with respect to migration, and thus, indirectly with respect to remittances. Contrary to some scholarly work by Stahl (1982) and Lipton (1980), which argued that migration (particularly to a foreign country) is an expensive venture and therefore, is only accessible to economically better-off households. Stark and Taylor (1989) found that in rural Mexico, relatively deprived households are more likely to engage in international migration than better-off households. Adams (2004) found that there is little selection bias with respect to families belonging to either the having 'migrant' or 'non migrant' categories. That is, migrant and non-migrant families are fairly randomly selected.

This study proposes to overcome problems encountered in these two preceding sets of studies by proposing a new framework for analysing the economic determinants of migration and receipts of remittances. It should be emphasized that this framework does not present migration either as an income-differential or as a non-economic 'push' phenomenon at the local level. Neither will it meddle with the unresolved issue of selection bias. Rather the framework uses micro-level data to specify and estimate a model of migration that dichotomize between internal and external migration and uses the households as the level of analysis including data on both economic and demographic variables.

Further, the study attempts to make specific contributions by using origin level data collected by Nigeria Bureau of Statistics (NBS, 2005) in Nigeria (rural sector) on such variables as education, employment and land etc to analyse the determinants of international and internal migration and receipts of remittances. This is useful because relatively few studies have used micro-level data to analyse the determinants of international as opposed to internal migration and receipt of remittances in Nigeria.

METHODOLOGY

Data

The study used the Nigeria Living Standards Survey (NLSS). The sample design was a 2-stage stratified sampling. The first stage involved the random selection of 120 housing units called Enumeration areas (EAs) from each state and the Federal Capital Territory. At the second stage, a total selection of 5 housing units from each of the selected EAs was chosen. Thus, a summing up of 22200 households across the country was derived (NBS, 2005). For the purpose of this study, the secondary data was stratified into rural and urban sectors. The second stage is the selection of the sampled rural households. The dataset provides detailed records on household expenditure, household income profile demography, education, health, employment and time use, housing, social capital and community participation, agriculture, non-farm enterprise, credit, assets and saving, income transfer and household income schedule and household characteristics.

Specification of model for migration and receipt of remittances

To examine the factors that affect migration and the receipt of remittances, multinomial logit regression model was used. The probability of a household having a migrant and receiving remittance is characterized as a polychotomous choice between three mutually exclusive alternatives.

Let Uij denote the utility that the household derive by choosing one of the three outcomes and Uij = γj Xij + eij

Where γj varies and Xij remains constant across alternatives; and eij is a random error term reflecting intrinsically random choice behaviour, measurement or specification error and unobserved attributes of the alternative outcomes.

Let also Pij (j = 0, 1, 2) denote the probability associated with the three choices, with j = 0, the probability of no migration and no remittance, j = 1, the probability of migration and receiving remittances from internal sources, and j = 2, the probability of migration and receiving remittances from external sources. The multinomial logit model (Babcock et al., 1995) is given by:

$$Pij = \frac{\exp(\gamma jXi)}{1 + \sum_{j=1}^{3} \exp(\gamma jXi),} \quad \text{for j = 1, 2, 3} \qquad (1)$$

Pij is the probability of being in each of the groups 1 and 2.

$$Pi0 = \frac{1}{1 + \sum_{j=1}^{3} \exp(\gamma jXi),} \quad \text{for j = 0} \qquad (2)$$

J = 1

*Pi*0 is the probability of being in the reference group or group 0.

In practice, when estimating the model, the coefficients of the reference group are normalized to zero (Maddala, 1990; Greene, 1993; Kimhi, 1994). This is because the probabilities for all the choices must sum up to unity (Greene, 1993). Hence, for 3 choices only (3 to 1) distinct sets of parameters can be identified and estimated. The natural logarithms of the odd ratio of Equations 1 and 2 give the estimating equation (Greene, 1993) as:

$$\ln \left[\frac{Pij}{Pi0}\right] = \gamma jXi \qquad (3)$$

This denotes the relative probability of groups 1 and 2 each to the probability of the reference group. The estimated coefficients for each choice therefore, reflect the effects of Xi`s on the likelihood of the household migrating and receiving remittances (internal/external) relative to the reference group. However, following Hill (1983), the coefficients of the reference group may be recovered by using the formula:

γ3 = - (γ1 + γ2)

For each explanatory variable, the negative of the sum of its parameters for groups 1 and 2 is the parameter for the reference group. This however, was not generated in this study.

Marginal effects

According to Greene (1993), by differentiating Equations 3 and 4, the partial derivatives or marginal effects of the model on the probabilities are:

$$\frac{dPj}{dPj} = Pj(Bj - \sum PkBk)_k \quad (4)$$

dPj k

When the marginal effects or partial derivatives are obtained the derivation techniques implicitly indicated that neither the sign nor the magnitude of the marginal effects need bear any relationship to the sign of the coefficients used in obtaining them (Greene, 1993).

Quasi – elasticities

The marginal effects or partial derivatives (dP_j/dX_i) are obtained by differentiating Equations 1 and 2 with respect to the particular explanatory variable. The derivation techniques implicitly indicates that neither the sign nor the magnitude of the marginal effects need bear any relationship to the sign of the coefficients used in obtaining them (Greene, 1993). The partial derivatives are converted to quasi elasticities by using:

$\eta_{Ji} = X_i (dP_j/dX_i)$,

Where X_i is the mean value of X_i

The quasi-elasticity represents the percentage point change in Pj upon a one percent increase in Xi. These elasticities are superior to the coefficients and the partial derivatives by their ease of interpretation. However, like the derivatives, they too may change sign as well as, value when evaluated at different points (Basant, 1997).

Dependent variable

Y_1 = probability of migration and receiving remittances from internal sources,
Y_2 = probability of migration and receiving remittances from external sources,
Y_3 = probability of no migration and no remittance

In this analysis, the third category (None), is the "reference state."

Independent variables

The independent variables which are the economic and demographic variables that influence the decision to migrate and receive remittances following Schultz, (1982); Adams (1993, 2005); Carling (2008) and Zhu and Luo (2008) include:

X_i = Human capital variables
X_j, = Household characteristics variables and
X_k = Migration network and wealth

Human capital

X_1 = Number of members over age 15 with primary school education
X_2 = Number of members over age 15 with secondary school education
X_3 = Number of members over age 15 with university education

Household characteristics

X_4 = Age of household head
X_5 = Gender (male = 1, 0 otherwise)
X_6 = Household size
X_7 = Number of males over age 15
X_8 = Number of females over age 15

Networks

X_9 = Locational variables (6 GPZ)
South to South = 1
South to East = 2
South to West = 3
North to central = 4
North to East = 5
North to West = 6

Wealth

X_{10} = Owns a land (1 = yes, 0 if otherwise)
X_{11} = Land size (ha)

The rationale for including these variables in the equation follows the standard literature on migration and remittances. According to the basic human capital model, human capital variables are likely to affect migration because more educated people enjoy greater employment and expected income-earning possibilities in destination areas (Schultz, 1982; Todaro, 1970). In the literature, household characteristics such as age of household head and number of male members and children are also hypothesized to affect the probability of migration. In particular, some analysts like Adams (1993) and Lipton (1980) have suggested that migration is a life-cycle event in which households with older heads having more males over age 15 and fewer children under age 5 are more likely to participate. Because of the significant initial costs in financing migration, the economic literature often suggests that households with more wealth are likely to produce migrants (Barham and Boucher, 1998; Lanzona, 1998). The model therefore, includes wealth variables with the expectation that middle-wealth households will have the highest probability of producing migrants and receiving remittances. The most important aspect of the rural economic opportunity hypothesis states that land deprivation, particularly, total landlessness or some small land holdings is a positive determinant of rural urban migration from rural areas either family's migration or individual's migration. Finally, since it is likely that location of residence in Nigeria will affect the probability of migration, six locational dummy variables-zones (with capital city omitted) are included in the model.

RESULTS AND DISCUSSION

Descriptives

Analysis of some selected characteristics of remittance

Table 1. Selected characteristics of remittance recipient and non-recipient households.

Variable	Receive no remittance	Receive internal remittances (from Nigeria)	Receive external remittances (from Africa and other countries)	t-test (internal remittances vs no remittances)	t-test (external remittance vs no remittances)
Mean age of household head (years)	46.77	53.66	61.67	-9.89***	-2.55***
Mean household size	4.96	4.14	4.25	7.03***	0.84
FAO equivalent adult	3.87	3.29	3.35	6.49***	0.80
Household head (literate = 1, 0 = illiterate)	0.47	0.52	0.5	-2.22**	-0.16
Mean annual per capita expenditure (excluding remittances)	28604	43345	111768	-10.94***	-1.59
Share of food expenditure	0.6	0.54	0.40	11.75***	3.49***
Mean household members age above 15 yrs	4.83	5.45	6.08	-9.64***	-3.08***
Mean annual per capita income (excluding remittances)	8688	35931	17931	-0.96	-0.68
Land size (Ha)	7.66	10.03	18.53	-1.14	-1.40
Poverty status (Poor =1, 0 = otherwise)	0.54	0.29	0.08	12.53***	3.09***

*Significant at 0.10; ** significant at 0.05; *** significant at 0.01.

recipient and non-recipient households (Table 1) shows some important contrasts between the three groups of households: non-remittance household, receive internal remittances and receive external remittances. On the average, when compared to non-remittance households, households receiving remittances (internal or external) have older household heads; smaller family size (household size) and share food expenditure. Share of members of age 15 years and above and FAO equivalent adult are relatively higher in external remittance receiving households than the other groups. Comparatively, the remittance recipient household heads have also a higher literacy rate. The higher literacy rate could be the causes for smaller share of children and family size in remittance recipient households.

Likewise, the size of land is biggest in households which received remittance from abroad, followed by internal, and the non-recipient. Consequently, the rate of poverty is higher at non-recipients and lowest at recipients from abroad. After analyzing some selected characteristics, and the income and expenditure levels of the households, there appears to be a kind of “income hierarchy” among the three groups of remittance receiving and non-receiving households. That is, the households receiving no remittances have more household size, less educated heads, highest share of food expenditure with low average expenditure, and hence they are relatively poorer. Conversely, the households receiving remittances from abroad are comparatively richer, and the households receiving internal remittances are in between them.

Determinants of migration and receipt of remittances

Table 2 shows the regression coefficients, standard error, estimated marginal effects and the quasi elasticities from estimating the multinomial logit on the probability of household producing migrant and receiving remittances. The log-likelihood value for the model is -2468.725. The likelihood ratio index p^2 value is 0.2621 confirming that all explanatory variables are collectively significant in explaining the probability of a household producing migrant and receiving remittance. In literature, Rahji et al. (2008) obtained p^2 value of 0.3145 while Zepeda (1990) reported p^2 value of 0.25 as representing a relatively good-fit for a multinomial logit model. Hence, the p^2 value of 0.2621 in this study is indicative of a good-fit for the estimated model. Evidence from the model as contained in Table 2 showed that the set of significant explanatory variables varies across the groups in terms of the levels of significance and signs. Several of the outcomes are unexpected. For both sets of households (those receiving internal and international remittances), most of the human capital variables are statistically insignificant. However, For internal remittances, households with more educated members at the secondary school level (X_2), age of household head (X_4), number of male over age 15 (X_7), zones 1, 2, 3 and 5, Land size (X_{11}) are positive and significantly associated with internal migration receiving internal remittances. Likewise, for international remittances, households with more educated members at the university level (X_3), age of household head (X_4), and Land size (X_{11}) are positive and significantly associated

Table 2. Multinomial logit model for rural Nigeria.

Variable	Receive internal remittances (from Nigeria)	Marginal effects and quasi elasticities	Receive ext remittances (fro
Human capital			
Number of members over age 15 with primary education (X_1)	0.027 (0.03)	0.000 (0.007)	0.135 (0.1
Number of members over age 15 with Sec. education (X_2)	0.035 (0.01)*	0.001*(0.042)	0.137 (0.1
Number of members over age 15 with Tertiary education (X_3)	-0.046 (0.06)	-0.002 (0.007)	0.415 (0.16
Household characteristics			
Age of household head (X_4)	0 .031 (0.01) ***	0.001 *** (1.348)	0 .139 (0.03
Gender (male=1 0, otherwise) (X_5)	-1.091 (0.37)***	-0.055* (0.910)	-4.571 (1.9
Household size (X_6)	-0.044 (0.02)**	-0.001 ** (0.205)	-0.168 (0.1
Number of males over age 15 (X_7)	-0.119 (0.08)	-0.004 (0.466)	-1.122 (0.5
Number of females over age 15 (X_8)	0.181 (0.09)**	-0.006 ** (0.106)	-1.770 (0.48
Network/Location			
[zones=1] (X_{91})	1.025 (0.18)***	-0.000 (0.158)	13.625 (825
[zones = 2] (X_{92})	1.435 (0.18)***	-0.002 (0.209)	14.448 (825
[zones = 3] (X_{93})	1.214 (0.19)***	-0.017 (0.092)	13.743 (825
[zones = 4] (X_{94})	0.193 (0.21)	-0.018 (0.027)	13.181 (825
[zones = 5] (X_{95})	0.423 (0.19)**	-0.013 (0.078)	13.959 (825
Wealth			
Has land (1 = yes, 0 if otherwise) (X_{10})	-0.704 (0.17)***	-0.027*** (0.486)	-0.763 (1.1
Land size (ha) (X_{11})	0.321 (0.07)***	0.011 *** (0.410)	0.437 (0.5
Constant	-3.584 (0.37)***		-17.511 (82
Log likelihood	-2468.725		
Restricted log likelihood	-5401.032		
Pseudo R^2	0.2621		
Chi-squared (30)	514.21		
Significance level	0.0000		
N	13514		

*Significant at 0.10; **significant at 0.05; ***significant at 0.01; standard errors are in parentheses with coefficients; quasi elasticities are in parentheses with m

With receiving international remittances. These suggest that for internal remittances, households with more educated members at the secondary school level are more likely to receive remittances. Likewise, for international remittances, households with more educated members at the university level have a higher propensity to receive remittances. Age of household head is significant with positive sign in

internal remittance category suggesting that the older the head the higher the propensity to receive remittances. Land ownership (Has land) and Land size is significant with positive sign in all categories. Since land and land size represent wealth, this confirms the fact that migration (especially, abroad) is an expensive venture and it is only household that is well-to-do that can afford it (Portes and Rumbaut, 1990; Lipton, 1980). As expected, all the zones except zone 4 are significant with positive signs. Since internal migration does not attract high cost relative to international migration, households in these zones are more likely to migrate internally and receive remittances. The positive sign implies that the probability of the households to migrate and receive either internal or international remittances relative to the reference group increases as these explanatory variables increase. The negative and significant parameter for the gender, household size, has land, number of male over age 15 and number of female over age 15 means that the probability of being classified in the two groups is lower relative to the probability of being placed in the reference group. Columns 2 and 4 of Table 2 contains the values of the estimated marginal effects and the quasi elasticities calculated at the overall sample means following Rahji et al. (2008) and Basant (1997) for all variables. The significant variables affect the probability of migrating and receiving remittances (internal or international). It is noteworthy that estimate not significantly different from zero indicates that the regressor or explanatory variable concerned does not affect the probability of migrating and receiving remittances relative to the reference group by the other two groups.

The multinomial logit does not share the monotonic bahaviour of binomial logit probability. Hence, the usual focus in literature is not marginal effects because the marginal effects depend on point evaluation and due to the non-monotonic nature; the marginal effects can vary in sign according to the value of the dependent variable. Thus, there is some potential for confusion, as marginal effects coefficients need not have the same sign as model coefficients. In literature, the quasi elasticities rather than the marginal effects are used for explanatory purposes because they are easier to interpret (Basant, 1997).

These partial elasticities of age of household head are elastic at 1.348 and 6.439 for the groups as classified. While only age of household is elastic for the first group, the quasi elasticities of number of male over age 15, number of female over age 15 gender of household head, and network variables zones 1, 2, 3, 4 and 5 variables for the second group are elastic at 4.630, 1.232, 3.941, 2.296, 2.435, 1.162, 1.964 and 2.754 respectively. This means that a one percent in the explanatory variable leads to more than a proportionate change in the probability of migrating and receiving internal remittances (1^{st} group) or migrating and receiving external remittances (2^{nd} group) relative to the reference group.

The partial elasticities for the remaining variables are generally small in magnitude and are also inelastic. The inelasticity of the variables suggests that the probability of migrating and receiving internal or external remittances is not greatly affected by marginal changes in the variables as a one percent change in the variable leads to a less than proportionate change in the probability of migrating and receiving remittances relative to the reference group.

Conclusion

The paper studied the determinant of migration and receipt of remittances by analysing household data collected by NBS with the use of multinomial logit regression model which allowed the decision to migrate and receive remittances is assumed to be a polychotomous choice between three mutually exclusive alternatives namely; to migrate and receive internal remittances, to migrate and receive international remittances and no migration and no remittances. With no migration and no remittances as the reference category, the results showed that, most of the human capital variables are statistically insignificant. However, for internal remittances, households with more educated members at the secondary school level (X_2), age of household head (X_4), number of male over age 15 (X_7), zones 1, 2, 3 and 5, land size (X_{11}), are positive and significantly associated with internal migration and receiving internal remittances. Likewise, for international remittances, households with more educated members at the university level (X_3), age of household head (X_4), and Land size (X_{11}) are positive and significantly associated with receiving international remittances.

REFERENCES

Adams RH (2004). Remittances and Poverty in Guatemala, World Bank Policy Research Working paper, p. 3418.

Adams RH (2005). Remittances, Household Expenditure and Investment in Guatemala. World Bank Policy Research Working Paper, p. 3532.

Adams RH (1993). The economic and demographic determinants of international migration in Rural Egypt. J. Develop. Stud., 30(1): 146 - 167.

Adedokun OA (2003). “The Rights of Migrant Workers and Members of their Families: Nigeria”. UNESCO Series of Country Reports on the Ratification of the UN Convention on Migrants.

Barham B, Stephen B (1998). Migration, Remittances, and Inequality: Estimating the Net Effects of Migration on Income Distribution, J. Develop. Econ., 55(2): 307-331.

Basant R (1997). “ Technology Strategies of Large Enterprise in Indian Industry: Some Explorations.” World Develop., 25(10): 1683 -1700.

Bauer T, Epstein GS, Gang IN (2006). ‘The influence of stocks and flows on migrants’ locational choices’, Rev. Develop. Econ., 10(4): 65265.

Bilsborrow R, McDevitt T, Kossoudji S, Fuller R (1987). 'The Impact of Origin Community Characteristics on Rural-Urban Out-Migration in a Develop. Country', Demography, 24(2): 191-210.

Brown L, Goetz A (1987). 'Development-Related Contextual Effects and Individual Attributes in Third World Migration Processes: A Venezuelan Example', Demography, 24(4): 497-516.

Carling J (2008). The determinants of migrant remittances. Oxford Review Econ. Policy, 24(3): 582–599.

Carvajal M, Geithman D (1974). 'An Economic Analysis of Migration in Costa Rica',Economic Develop. Cult. Change, 23(1): 105-122.

DFID (2006). Bilateral. Remittances Corridor Analysis Initiatives(BRCAI). The Challenge of Embracing Formal Transfer System in a Dual Financial Environment. Excerpts fromthe Publication Presented at the 2nd International Conference on Migrant Remittances. DFID. London. pp. 13-14.

Epstein GS (2002). 'Informational cascades and decision to migrate'.
Bonn: IZA Working Paper, p. 445.

Epstein GS, Gang IN (2004). 'The influence of others on migration plans'. Bonn: IZA Working Paper, p. 1244.

Falaris E (1979). 'The Determinants of Internal Migration in Peru: An Economic Analysis', Economic Development and Cultural Change. 27(2): 327-341.

Findley SE (1987). 'An Interactive Contextual Model of Migration in Ilocos Notre, The Philippines', Demography, 24(2): 163-190.

Greene WH (1993). Econometric Analysis. Macmillan, pp. 245–246. Harris J, Todaro M (1970). 'Migration, Unemployment and
Development: A Two-Sector Analysis", American Economic Review. 60(1): 126-142.

Hill MA (1983). "Female Labour Force Participation in Developing and
Developed Countries: Consideration of the Informal Sector" Review Econ. Statistics, 63(3): 459-468.

House W, Rempel H (1980), 'The Determinants of Interregional Migration in Kenya', World Development. 8(1): 25-35.

IFAD International Fund for Agricultural Development (2007). Sending home
money , Rome, Italy http://www.ifad.org/events/remittances/maps/brochure

Kimhi A (1994). "Quasi Maximum Likelihood Estimation of Multivariate Probit Couple Labor Participation", Am. J. Models:Farm Agri. Econ. 76(4): 828-835.

Lanzona L (1998). "Migration, Self-Selection and Earnings in Philippine Rural Communities."J. Develop. Econ, 56(1): 27-50.

Lipton M (1980). 'Migration from Rural Areas of Poor Countries: The Impact on Rural Productivity and Income Distribution', World Develop, 8(1): 1-24.

Maddala GS (1990). Limited Dependent and Qualitative Variables in Econometrics. Cambridge University Press, Cambridge.

Maimbo SM, Ratha D (2005). Remittances: Development Impact and Future Prospects. Washington DC: The World Bank.

Munshi K (2003). 'Networks in the modern economy: Mexican migrants in the US labour market' ,Q. J. Econ., 118(2): 54999.

NBS, National Bureau of Statistics (2005). Nigeria Living Standard Survey, Abuja FCT.

OECD (2003). Remittances to Developing Countries.

Orozco M (2003). "Worker Remittances in an International Scope." Inter American Dialogue Research Series, Washington, DC.

Orozco M, Millis B (2007). Remittances, competition and fair financial access opportunities in Nigeria. USAID.

Portes A, Rubén G, Rumbaut (1990). Immigrant America: A Portrait (University of California Press, Berkeley and Los Angeles).

Rahji MAY, Fakayode SB, GK Sanni (2008). A Multinomial Logit Analysis of Agricultural Credit Rationing by Deposit Money Banks in Nigeria: A case study of Oyo State, South-west Nigeria. Econ. Financial Rev., 46(2): 55-82.

Ratha D (2003). "Worker's Remittances: An important and Stable Source of External Development Finance". In Global Development Finance: Striving for Development, pp. 157-175.
http://siteresources.worldbank.org/INTRGDF/Resources/gdf2003Cha pter7.pdf

Ratha D (2005). "Workers' Remittances: An Important and Stable Source of External Development Finance". In Maimbo, S. M and
Ratha D. (ed) Remittances: Development Impact and Future Prospects. Washington DC: the World Bank.

Schultz TP (1982). Notes on the Estimation of Migration Functions, in: R. Sabot (ed) Migration and the Labour Force. Westview Press, Boulder, CO, USA. Stahl, C. 1982, Labour Emigration and Economic Development, Int. Migration Rev., 16: 868-899.

Stark O, Taylor JE (1989). 'Relative deprivation and international migration', Demography. 26(1): 114.

Todaro PM (1997). "Urbanization, Unemployment, and Migration in Africa: Theory andPolicy. Paper Prepared for Reviewing Social and Economic Progress in Africa. Dharam.

UNDP. United Nations Development Programme (2005). "The Millennium Development Goals Report 2005": Consulted online in December 2007.

World Bank (2004). "Global Development Finance 2004: Harnessing Cyclical Gains for Development. Washington DC: World Bank.

World Bank (2003). Global Development Finance: Striving for Stability in Development Finance. Washington, DC: World Bank.

Zepeda L (1990)."Adoption of Capital versus Management Intensive Technologies" Canadian J. Agri. Econ., 38: 457-469.

Zhu N, Luo X (2008). The Impact of Remittances on Rural Poverty and Inequality in China, World Bank Policy Research Working Paper (WPS 4637).