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Determinants and Effect of Rural - Urban Migration among Farming Households in KwaraState, Nigeria.

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Abstract

This paper examines the determinants and effect of rural-urban migration in Kwara state, Nigeria. Descriptive statistics was used to describe the sample characteristics as well as the personal characteristics of the migrants. Econometric techniques, including logistic and Ordinary Least Square regression analyses were used to analyze the determinants and effect of rural-urban migration in the study area. The results show that majority (81.8%) of the migrants are young adults and are within the age range of 20-40 years. The quest for further education(16.4%) and search for employment opportunities(30%) are the major reasons for rural-urban migration. Econometric analysis shows that households with older head are more likely to produce more migrants than those with younger head. Migration has a negative effect on farm output generally due to reduced labour available for farm work. On the other hand, it has a positive effect on total household's income, due to the remittances sent home by the migrants. Establishment of more schools and small-scale industries in the rural areas is recommended so as to discourage the migration of the young adults that may want to leave as a result of the quest for educational or employment opportunities.

Keywords: Farming households, rural-urban migration, remittances, farm output, household income.

Introduction

The movement of people from one environmental region or area to another is called migration. It is a global phenomenon which could either be on a temporary or permanent basis. To some, it occur as a response to social factors while, some others move as a result of quest for further education, search for employment, higher wages, etc. The need to escape conflicts or adverse physical condition such as flood, hurricanes, draught, earthquakes landslides etc. necessitate the migration of some other group of people. There are different categories of migration, some of which include: Traditional migration, rural-rural migration, emergency or forced migration, country-country migration, urban-rural migration, as well as rural-urban migration. Traditional migration entails the movement of people such as fishermen, pastoralists etc. from one place to another, in search of resources such as water bodies, pasture field for their livestock etc. to aid their businesses. Rural-rural migration refers to the movement of people from one rural area to another. Emergency or forced migration refers to an unplanned movement from one place to another either due to war, famine, draught etc. Country-country migration refers to the movement of people from one country to another which could either be on an intercontinental or intracontinental basis. Urban-rural migration refers to the movement of people from the urban centers to the rural areas. Rural-urban migration is the movement of people from the rural areas to the urban centers.

Rural-urban migration is probably the most distinctive pattern of migration in West Africa and indeed throughout most developing countries, Nigeria inclusive. It is no doubt a distinguishing feature of development. Although, rural-urban migration might be regarded as a desirable and essential result of industrialization, it has led to the upsurge of the problem of food insecurity in developing nations, as able bodied people are leaving the rural areas which are the domain of agricultural practices for the urban centers (base of industrialization).As a result of rural-urban migration, the problem of urban unemployment has been made worse. This has led to an increase in the rate of criminal acts such as armed robbery, fraud, prostitution among others in the urban centers. For instance cases of murder in Karachi, the largest urban centre in Pakistan is said to have increased from 734 per annum in 2006 to 1,142 in 2008 (Singh Police Department, 2010). Besides, cases whereby the masses find it difficult to appropriate employment and or educational opportunities, they can easily be trapped by politicians and terrorists to promote their selfish, evil agenda (Canter and Lard1985; Farrington, 1986). The problems of environmental pollution, inadequate shelters etc. are on the increase as well.

There are some available studies that have analyzed the effect of rural-urban migration on agricultural production in Nigeria and beyond (e.g. Angba2003; Mincer 1999; Nwogu 1999). Nevertheless, there is need for more studies on this phenomenon, particularly in Kwara state so as to give a proper and in-depth understanding, as well as necessary information needed by policy makers to formulate policies that would help to reduce the attendant problems of rural-urban migration. This gap in knowledge is

what this study hope to fill. This study has two main objectives. First, it identifies the determinants of rural-urban migration in Kwara state and second, it analyzes the effect of rural-urban migration on agricultural production and household income in Kwara state.

The remaining parts of the paper are organized as follows. Section 2 provides a description of the setting of the study area, the sample characteristics and some descriptive result of the personal characteristics of the migrants. Results of econometric analyses are presented in section 3, while, section 4 concludes the paper with policy implications.

Data and Sample Characteristics

The Study Area

This study was conducted in Kwara State, north central Nigeria. Kwara State was chosen for this study because it is among the six poorest in Nigeria in terms of undernourishment and income poverty. About 83% of the population of the State classified themselves as being poor (NBS, 2006). The State lies between latitudes 7° 45′ N and 9° 30′ N of the equator and longitudes 2°30′E and 6° 25′E of the equator. It shares boundaries with Osun, Oyo, Ondo, Kogi, Niger and Ekiti states. Kwara State shares an international boundary with the Republic of Benin in the west. The State has a population of about 2.37million people (NPC, 2006) out of which farmers account for about 70%. The average population density of the state as at 2006 was about 73 people per square kilometer. There are a total of 1,258 rural communities in Kwara State (NPC, 2006). Based on agro-ecological and cultural characteristics, the state is divided into four agricultural zones –zones A, B, C and D, by the Kwara State Agricultural Development Project (KWADP).

A humid tropical climate prevails over the state and it has two distinct seasons; the wet and dry seasons. The wet season last between April and October during which there is rain and the dry season with no rain is between November and March. The state is primarily agrarian with great expanse of arable land and rich fertile soils. The soil types are ferrisols on loose sandy sediments, while the soils are reddish to the north and yellowish-brown to the south. These soil types are less leached and are suitable for growing different types of crops. The State has a total land area of about $32,500km^2$, which is about 3.5% of the total land area of the country, which is put at $923,768km^2$ (KWSG, 2006). Approximately 25% of the land area of Kwara State is use for farming.

The farming system in the state is characterized by low quality but surplus land, low population density and mostly cereal-based cropping pattern. Kwara State has a large lowland areas that are often flooded and waterlogged during the rainy season but retain enough moisture during the dry season for fadama production. The typical cropping systems in the state are maize-based system, yam-based system, cassava-based system and rice cultivation in areas located along river Niger, the major river in the state. Agricultural production is largely peasant and small-scale relying heavily on the use of manual labour equipped with crude implements, while fertilizers, mechanical implement, improved seeds and agrochemicals are also used to some extent. Landholding in the state is very small and most of the households have less than two hectares of land for farming. Farm enterprises are generally small in size, so that – in spite of own production most households are net buyers of food, at least seasonally (KWSG, 2006).

Data and sample characteristics

Data used for this study were collected in the year 2012. A multi-stage random sampling technique was used for selecting the sample. In the first stage, 5 local government areas; Ifelodun, Ilorin south, Moro, Offa, and Oyun local government areas were selected randomly. In the second stage some households were also selected randomly from each local government area. The total number of households that was sampled is 84.   Information about the socio-economic characteristics of the farming households, the presence (or not) of a migrant in a farming household, gender of the migrant, age of the migrant, educational status of the migrant, remittances sent home by the migrant, reasons for migration by the migrant, farm production data and village-level information were collected through a well structured questionnaire. The respondents for this study are the household heads. Table 1 shows the selected sample characteristics. The personal characteristics of the migrants are shown in table 2.

Table 1: Selected sample characteristics

Characteristics	Percentage
Gender of the household heads	
Male	92.9
Female	7.1
Occupation of the household heads	
Farming alone	
Farming with others	94
Age distribution of the household heads	6
1-30	
31-40	
41-50	2.4
51-60	4.8
61-70	11.9
>70	33.3
	36.9

Education status of household head	10.7
No formal education	
Adult education	
Primary education	65.5
Secondary education	3.6
Tertiary education	21.4
Quranic education	7.1
Household size	0
1-5	2.4
6-10	
11-15	
>15	10.7
	70.2
	13.1
	6.0

Source: Field survey 2012

Table 1 shows that majority(92.9%) of the household were headed by a male, only 7.1 % of them were headed by females. 94 % of the household heads engage in farming as their sole occupation while the remaining 6% of the combines farming with other occupations e.g. trading. Majority (70.2%) of the household heads are within the age of 51-70 years, only 19.1% of them are below the age of 50 years while, the remaining 10.7% are above 70 years of age. Majority (65.5%) of the household heads had no formal education while the remaining 34.5% had some forms of formal education. Majority of the households are made up of between 6 to 10 individuals while10.7% of them is made up of 5 or less people, the remaining 19.1% had as much as 11 or more people.

The results shown in table 2 shows that 58.9% of the migrants are male while, the remaining 41.1% are females. This implies that in the study area, males migrate to urban centers more than their female counterparts. The table also shows that 95.7% of the migrants have on form of formal education or the other, only 4.3% of them had no formal education. This implies that, people who are educated tend to move from rural areas to urban centers than their uneducated counterparts. The table as well indicates that, 81.8% of the migrants fall within the age bracket of 21-40 years of age. This age group is referred to as young adult, which constitute the active labour force of a nation. This therefore implies that it is the active labour force that is leaving the rural areas for the urban centers. From table 2, it can be inferred that, 87.4% of the migrant went to urban centers that are at least 300 km away from home. Only 12.6% of them went to places that are less than 300 km away from home. Table 2 also shows that 95.5% of the migrants spent at least one year in school. According to the result obtained, 57.42% of the migrant sent nothing home last year while, the remaining 42.58% sent some money home. Educational pursuit (16.4%), search for employment opportunities (30%) and rural-urban wage differential (21.7%) are the predominant reasons why people migrate to the urban centers. Marriage (6.3%) as a reason for migration is most applicable to the females in the study area. 4.3% of the migrants left because of being bored of rural life while, the remaining 6.3% left to supply seasonal labour.

Table 2: Socio-economic characteristics of the migrant

Characteristics	Percentage
Gender of the migrants	
Male	58.9
Female	41.1
Education status of the migrant	
No formal education	4.3
Primary education	18.2
Secondary education	51.7
Tertiary education	25.8
Age distribution of the migrants	
11-20	11
21-30	39.2
31-40	42.6
>40	7.2
Distance from the rural area to the urban destination of migrant (Km)	
1 – 100	43.7
101 – 200	5.3
201 – 300	38.4
301 – 400	7.4
401 – 500	3.2
>500	2.1
Years of schooling by the migrant	
0	4.5

1 – 5	9.5
6 – 10	10.5
11 – 15	49.5
16 – 20	25.0
>20	1.0
Remittances sent home last year by migrant (₦)	
Nil	57.42
1 – 10,000	19.14
10,001 – 20,000	12.26
20,001 – 30,000	6.7
30,001 – 40,000	1.91
40,001 – 50,000	1.91
50,001 – 60,000	0.48
>60,000	0.48
Reason for migration by the migrant	
Educational pursuit	16.4
Employment opportunities	30
Presence of urban friends and or relatives	15
Migrant is bored of rural life	4.3
Rural-urban wage differential	21.7
To supply seasonal labour	6.3
Marriage	6.3

Source: Field survey, 2012

Econometric Analysis and Results

Determinants of rural-urban migration

For the analysis of the determinants of rural-urban migration, a logistic model was estimated. The model was specified in the implicit form as follows:

$Y= f (X_1, X_2, X_3, X_{4.....}μ)$

Where Y = presence of migrant in an household (yes=1, no=0)

X_1 = age of the household head (year)

X_2 = occupation of the household head (farming as primary = 1, 0 otherwise)

X_3 = number of years spent in schooling by the household head (year)

X_4 = farming experience of the household head (year)

μ = random error term.

The result of the estimation is shown in table 3. From table 3, the Hosmer and Lemeshow test with chi-square value of 3.961 and a *P*-value of 0.861 implies that the model has a good fit since the estimated P-value is significantly higher than the standard 5% P-value. The R-squared, 0.336 indicate that 33.6% of the variation in the dependent variable (presence of migrant in a household) is explained by the independent variables.   Among the predictors, age of the household head is the only significant predictor; it has a positive beta coefficient. This implies that the higher the age of the household head, the higher the rate of migration from the household. The probability that more people will migrate from the study area is 91.6%, the probability that more people will not migrate from the study area is 8.33%.

Table 3: Determinants of rural-urban migration

Variables	Coefficients	T-value
Constant	-4.484***	3.320
Age of household head	0.114***	8.412
Occupation of household head	-0.706	0.414
Years of schooling by household head	0.009	0.010
Farming experience of the household head	0.011	0.141
Log-likelihood	64.481	
Nagelkerke R-square	0.336	
Chi-square	3.961	
p-value	0.861	

*** indicates significant at 1%. Predicted probability: < .50000 (8.33%), .50000+ (91.67%)

Effect of rural-urban migration on farm output

The ordinary least square regression analysis was used to analyze the effect of rural- urban migration on the farm output of the selected farming household. The econometric model can be written as follows:

$Y = f (X_1, X_2, X_3, X_4, \mu)$

Where Y = farm output of the farming household (grain equivalent)

X_1 = cash value of farm inputs used for production (₦)

X_2 = proportion of the farm output sold

X_3 = presence of a migrant in an household (yes =1, no =0)

X_4 = farm size cultivated by the household (Ha)

μ = random error term.

In the estimation, value of inputs used, proportion of output sold, presence of migrant in the household, farm size cultivated was regressed against the farm output. The result obtained is shown in table 4.

Table 4: Effect of rural–urban migration on the farm output of the farming households

Variables	Coefficients	T-value
Constant	10.99***	34.13
Value of input used for production	3.26E-06***	5.05
Proportion sold	0.978***	2.79
Presence of migrant in the household	-0.254	-1.47
Farm size cultivated	0.108***	2.81
Adjusted R^2	0.453	

*** indicates significant at 1%

Among the independent variables, value of input used, proportion sold and farm size cultivated were significant. Among the significant predictors, proportion sold has the highest value of beta coefficient thus, has the strongest effect on farm output. This implies that the higher the proportion sold by the farmers, the higher their propensity to produce more. This is because the more they sell, the higher the income obtained from their production. The income obtain can then be used by the farmers to purchase inputs for the next cropping season, increase their farm size and purchase other things. The farm size has a positive coefficient hence, the larger the farm size the higher the farm output.

The value of input used also have a positive coefficient, this implies that the more the input used the more output that would be obtained. But the value of inputs used for production contributes least to farm output, considering the value of its beta coefficient. The presence of migrants in a household has a negative coefficient but, it is not significant. This is because farming households, regardless of the presence of a migrant or not still has to hire labour so far their farm size warrants it. This study revealed that households without the presence of a migrant are usually those whose household head is relatively young and that the age of the household head is positively correlated with those of their children. Thus, the children are also young. These little children can only contribute very little to the required labour on the farm hence, these households still hire labour. Irrespective of its non-significance, the negative coefficient implies that an increase in the rate of migration will result in a decrease in farm output.

Effect of rural-urban migration on household income

To further test the effect of rural-urban migration, we estimated a regression equation where household's total income is regressed against other explanatory variables including the presence of migrant in a household. Theoretically, remittances sent home by the migrants is expected to increase total household's income. Therefore, a positive effect of rural-urban migration on total income is expected. The econometric model can be written as follows:

$Y = f (X_1, X_2, X_3, X_4, X_5, \mu)$

Where Y = total household's income (₦)

X_1 = household size (adult equivalent)

X_2 = household assets (₦)

X_3 = presence of a migrant in an household (yes =1, no =0)

X_4 = farm size (ha)

X_5 = distance to market (km)

μ = random error term.

The result obtained is shown in Table 5. The results show that the presence of migrant in the household has a positive and significant effect on household's income. This agrees with *apriori* expectation, since remittances contribute to increased household's income. Another variable that contribute positively to income is household's asset.

Table 5: Effect of rural-urban migration on household income

Variables	Coefficient	T-value
Constant	32416.3***	22.12
Household size	-8743.1	-1.14
Household's asset	12381.9***	7.12
Presence of migrant in the household	20431.2***	5.99
Farm size	21021.4	1.08
Distance to market	-14348.6	-0.43
R^2	0.521	

*** indicates significant at 1%

Conclusion

This study has analyzed the effect of rural-urban migration on the farm output and income of farming households in Kwara state. From the result obtained a number of conclusions can be made. First, the presence of migrant in a household has a negative effect on the farm output of the migrant's household. Second, households with older head have higher probability of having more migrants. Third, the presence of migrants in a household affects income in a positive and significant way. The first policy implication of the result is that there is need for the establishment of small-scale agro-allied industries in the rural areas by government to absorb the rural working population. This would provide greater employment opportunities and thus reduce the rate of migration of the active labor force to urban centers. Second, more schools and training centers should be established in rural areas. This would reduce the need to travel to cities for further education. Third, public and private financial institution that would provide farmers with credit facilities should be established in the rural areas. This would make agricultural practices to be more attractive and thus, encourage young people to stay back at home. Lastly, social amenities such as pipe borne water, electricity, motorable roads, hospitals etc., should be provided in the rural areas. These would make the rural areas to be more attractive so that people would not be bored of living there.

References

Angba, A.O. (2003) Effect of Rural Urban-Migration of Youths on Agricultural Labour Supply in Umuahia North Local Government Area of Abia State, Nigeria, *Journal of Agricultural Research,* 3(2): 77-83.

Canter, D. and Lard, K.C. (1985) Unemployment and Crime Rates in the Post WorldWar II United States: A Theoretical and Empirical Analysis. *American Sociological Review,* 50:317-332.

Farrington, R.E. (1986) Unemployment, School Leaving and Crime. *British Journal of Criminology,* 26(4): 335-356.

KWSG (2006) *Kwara State Government of Nigeria, Planning Studies in Kwara State.* Ministry of Land and Regional Planning, Ilorin.

NBS (2006) National Bureau of Statistics, Abuja, Socio-economic Survey of Nigeria.

NPC (2006) National Population Commission, Provisional Census Figure of the 2006 National Census for Kwara State, Nigeria

Mincer, J. (1999).*Labour mobility and wages: A review.*Colombia university press, NewYork.

Nwogu, C.M. (1999)Rural-urban Migration in South-Eastern Nigeria. Abia State Agric Extension Report. Singh Police Department Pakistan (2010)Why is the Increase in Murder Cases in Urban Pakistan? Unpublished Crime Report.