

Global Economic Crisis and Career Aspirations among 'Okada' Riders in Nigeria: The Influence of Apprenticeship Skills Training

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Abstract: *In spite of their usefulness as fast movers of passengers and goods in urban traffic congestion, the motor-cycle taxis have been noted for high rate of road traffic crashes inflicting injuries to many and death in some cases. Thus, a number of operators are in the occupation for other purposes rather than making it a lifetime career. This study is therefore aimed at examining such other purposes and future career aspirations of riders. It is also aimed at testing the hypothesis of the probabilistic migration model as propounded by Todaro. The data for the study is from a survey of 777 okada riders in two states of South West Nigeria. Using binary logit regression approach, the determinants of career choice among respondents are examined. The findings of the study shows employment as okada riders are for raising start-up capital in most cases, and that education, current earnings level and apprenticeship skills training among others are statistically significant variables affecting career aspiration among the respondents. Provision of commensurate employment for the educated youths and relaxing capital constraints for those with previous skills training are some of the policy implications of findings.*

Keywords: 'Okada', Self-employment, Unemployment, Motor-cycle taxi, Informal sector

JEL Classification: J21, J24

1. Introduction

Nigeria embarked upon the process of economic liberalisation in 1986 with the advent of the Structural Adjustment Programme. Since then, liberalisation has brought about major restructuring of formal sector activities that has impacted the informal sector in various ways. Cost cutting strategies of formal sector organizations and industrial units have led to job losses in the sector while the losers have had to take up alternative means of livelihood in the informal sector of the economy. Furthermore, the deregulation of exchange rate has opened up the import-dependent local economy to the competitive pressure with advanced capitalist economy thereby making available relatively cheap imported goods at the expense of locally produced ones, most of which are produced in the informal sector enterprises.

Also, the global economic and financial crisis which resulted in the fall of the price of crude oil and other exportable commodities, dwindling external reserves and a depreciation in the value of the local currency led to high rate of capacity under-utilisation in the industrial sector while several other unfavourable policies led to the shutdown of many industrial establishments (Ajakaiye & Fakiyesi, 2009) especially in the textile and tyre manufacturing subsectors. These, among other factors, led to the worsening of the rate of composite unemployment from 12.7% in 2007 to 19.7% in 2009. The prime aged members of the labour force as well as those with some formal

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education are the worst hit. According to the 2009 labour force sample survey carried out by the National Bureau of Statistics, the distribution of the unemployed by age shows that those in age group 15-24 and 25-44 are 33% and 47.5% respectively.

In terms of education, those with primary and secondary education among the unemployed are 33% and 39% respectively (NBS 2010, Table 4a). Thus, both the urban unemployed and the new entrants into the urban labour force who could not obtain the desired formal sector employment are compelled to take advantage of the employment and income opportunities in the informal sector. While some are engaged as employees in micro and small scale family-owned enterprises, others are self-employed in trading and other related activities while others decide to acquire skills through the apprenticeship system in any of the vocational crafts. Many have completed the apprenticeship terms with their respective masters but have to get engaged in some other menial activities in the informal sector to source start-up capital. The informal sector therefore serves as employer of last resort. However, an important question in the development literature is whether the informal sector offers decent permanent/lifetime employment or whether it is a mere waiting ground for the labour force desiring entry into the formal sector (Todaro & Smith, 2009:338).

While a number of researchers have studied the employment potentials of the urban informal sector (ILO, 1972; Ogunrinola 1991; Folawewo 2006; Faridi et al 2011) not much has been done, in our view, in terms of the informal-formal (i.e. inter-sectoral) as well as informal-informal (i.e. intra-sectoral) occupational mobility among informal sector workers in Nigeria. More specifically, no known study has attempted to determine the factors that are responsible for the career aspiration of temporary workers in general and okada riders in particular in the urban informal sector. This study therefore examines the occupational expectations of informal motorcycle taxi riders in the informal sector of South-West Nigeria. This is considered important due to the fact that most riders are non-permanent workers as a result of high road-accident rates among okada riders in Nigeria and other developing nations where this mode of transport is prevalent (Akinlade and Brieger, 2003/2004; Rahman, 2006; Solagberu et.al, 2006; Olawole, et.al 2010). This study is aimed at bridging this gap. The rest of this paper is organised as follows: after this introductory part; Section 2 reviews some empirical literature, Section 3 examines the Methodology of the Study, Section 4 gives the interpretation of data while Section 5 concludes the paper.

2. Theoretical Framework and Brief Literature Review

2.1. Theoretical Framework

The role of the informal sector in the employment generation process has been a subject of much debate. While it is agreed that employment opportunities abound in the sector (ILO 1972); others have questioned the decency or otherwise of such jobs (Tokman, 1978). Another line of arguments relate to the role of the informal sector in the migration process. Some researchers have asked if the sector is a provider of permanent jobs or a waiting ground until the informal sector job is obtained, while others are of the view that the sector provides permanent employment. For instance, the Todaro migration model assumes that the informal sector is a temporary staging post for new migrants waiting to pick up the desired formal sector work. The model as developed by Todaro (1969) posits that the informal sector provides temporary employment for recent migrants to enable them finance the search for the desired high-wage formal sector employment. However, an empirical test of this model by Barnerjee (1983) does not support this view. The study, carried out in Delhi, India

refutes the basic assumption of the Todaro migration probabilistic model, since, according to Barnerjee, 'a sizeable proportion ... of migrants who entered the informal wage sector and the non-wage sector had been attracted to the city by opportunities in these sectors and did not consider employment there as a means of survival while waiting on the queue for formal sector jobs.' Studies like Amin (1981) and Ogunrinola (1991) have obtained similar results in their study areas, respectively.

Another important theoretical issue worthy of being examined is the concept of the informal sector and informality in general. The term 'informal sector' was said to have been introduced by Keith Hart, a British sociologist who studied the income and employment situations of the urban poor in Ghana (Hart, 1973; Debrah, 2007). Keith's definition of the informal sector is based on the dualistic or structuralists' approach which dichotomises the economy into wage work in the small formal sector and self-employment in the informal sector. By his definition, informal income opportunities might be legitimate or illegitimate and that the term refers to activities or roles and not to persons since an individual can be operative in either or both of the sectors at the same time.

The term 'informal sector' was also adopted, and in fact, brought to prominence by the ILO's (1972) study on the Kenyan economy, having borrowed the term from Hart's earlier version of his paper presented in a seminar in 1971. The ILO's study, like Hart's, identified a host of income generating activities outside the relatively small-based urban formal sector and such activities are concentrated in the 'unorganised' sector of the economy (see also Mazundar, 1976). Such activities are reported to be dominated by recent migrants, the very young, the very old, and women, who are unable to obtain regular employment in the formal sector. According to the ILO group, the informal sector enterprises are characterized by ease of entry, small-scale and labour intensive operation. Furthermore, the informal sector typically refers to economic activities not recorded in the national accounts, and not subject to formal rules of contract, licensing, labor inspection, reporting and taxation. In addition, technology is adapted and skills are acquired outside the formal school system and they operate in highly competitive labour and product markets.

The dualistic approach to the analysis of the urban labour market as explained above does not satisfy the marginalists who view employment and income generation activities in the sector as 'marginal' and subordinate to the capitalists' mode of production. Thus, the marginalists contend that it is more realistic to think of a continuum of heterogeneous activities in the labour market, stretching from 'stable-wage-work' to 'true self-employment'. Between these extremes are intermediate activities. Work in the informal sector is said to be both unstable and highly dependent on the capitalist sector in terms of, say, subcontracting or the supply of spares, capital, and so on, at exploitative prices. Moreover, whether in true self-employment or wage-work, informal sector workers are said to lack security of employment and stability of income as compared to those in formal employment (Bromley and Gerry, 1979). In spite of these disadvantages, the informal sector enterprises are known to be active in the skill formation process through the age-old apprenticeship system (Ogunrinola, 1991).

The literature on human capital development and its impact on employment and earnings of the individual within the economy are vast but the majority of these are targeted at the formal education and trainings. In the informal sector, the unemployed, especially the young school leavers from the rural or surrounding peri-urban areas who failed to obtain the desired formal sector employment do settle down either to

pick up employment in the low-paid informal sector jobs, self-employment in odd jobs like street trading or apprenticeship with master craftsmen in the sector. Those who take to apprenticeship or other menial jobs in the informal sector are those who cannot afford to continue in the formal educational ladder and/or cannot obtain paid job in the formal sector of the economy.

For a typical apprentice, the ultimate goal is to become a self-employed entrepreneur after the end of training period if such is able to afford the cost of the end-of-training fee payable to the master as well as the necessary start-up capital. In some other cases, the trained apprentice who could not afford the above named fees may decide to engage in odd jobs to earn and save for them. Some may therefore settle down into the informal sector while others may decide to move to the urban sector to secure jobs in the factories/workshops of formal sector organisations. The latter group of apprentices are those with some primary and/or post-primary education who can study in their private time to attempt the craft/technical training examinations like Trade Tests (Grades III, II and I) conducted by the Ministry of Labour in Nigeria. Thus, in the informal sector of the urban labour market there are different motivations for getting involved in the apprenticeship scheme (See Ogunrinola, 1992).

Since apprenticeship is a form of human capital formation, the human capital theory developed by Becker (1975) and other scholars makes it clear that investment in skills acquisition improves earning stream over the lifetime as reflected in the age-earning profile. Just like any other form of investment, those investing in skills acquisition compares the discounted value of costs to the discounted value of future streams of benefit. Additional skill formation becomes profitable if benefits are greater than costs. Thus, rather than wait endlessly for the urban sector job, most young migrants to the city do take up apprenticeship with a view to becoming a skilled craftsman in the trade selected. The final choice of sector of permanent work after training through the apprenticeship is a research question with which this study is concerned. While some of them may decide to set up as master-craftsmen in the informal sector if able to afford the start-up capital requirements, others may want to continue to search for formal sector employment based on their new level of skills and competence. Even for those wanting to settle as entrepreneurs, this may not happen immediately after the completion of the apprenticeship period if the required start-up capital is not available. Thus, *a priori*, it can be posited that apprentices are expected to make any or a combination of any of the following choices after training: (i) Settle down as master-craftsman in the informal sector, (ii) Continue with the master as a 'journey-man' after apprenticeship in order to raise start-up capital and funds to pay final training fee to the master; (iii) Get involved in other form of informal sector employment to raise the required funds, (iv) Seek employment in the formal sector as a skilled craftsman/technician. This study is based on urban informal sector workers in the commercial auto-cycle riding occupation with a view to finding the factors that determine their ultimate occupational choice within the urban economy.

2.2. Brief Survey of Empirical Literature

Previous literature on the employment opportunities of the informal sector has initially viewed the sector as a provider of employments of last resort (a kind of safety net) for recent migrants and previous urban settler who lost their jobs and are unable to find employment in the modern formal sector. However, in recent times the image of the informal sector has begun to change with time as well as the level of the formal education and skill level of operators in the sector (Ogunrinola, 2007). More workers have begun to view it, not as a temporary stop-gap while searching for employment in

the formal wage economy, but as a preferred destination offering opportunities to those wanting to become entrepreneurs (Ogunrinola, 1991). Thus, the sector is made up of those that are either permanently or temporarily engaged in it (Ogunrinola, 1992, Oladeji, 1994). As a result, several researchers have carried out studies both in the rural/agricultural as well as in the urban sectors to examine the issue of occupational choice and the factors responsible for it.

The research work of Khan (2007) with respect to occupational choice was carried out among rural agricultural workers in Pakistan. Relying on the use of multinomial logit model, the study examined the factors that affect occupational choice of agricultural farm workers in the rural sector of Pakistan. The study used primary data that was generated from six villages where 2,825 households were interviewed. The result of data analysis showed the importance of individual, household and community related variables like education, age, income, household size, working members and number in the household towards the determination of employment choice decisions. The study by Faridi et al (2011) concentrated on the female gender. Like Khan, Faridi examined the factors that determine self-employment choice among women in the Bahawalpur District of Punjab, Pakistan. The study made use of primary data collected from 164 women in the 15-64 years age cohort and the logistic regression technique was employed to estimate the self-employment model. The study's findings show that important factors like age, experience, educational attainment, number of children in the household, among others, affect women's self-employment decision in Pakistan.

In contrast to the studies by Khan and Faridi, the major concern of Lianos and Pseiridis (2009) is the determination of the factors influencing occupational choices of return migrants into their countries of origin. By the use of secondary data from earlier surveys carried out by the World Bank in Bosnia, Bulgaria, Georgia, Kyrgyzstan, Romania and Tajikistan) in the year 2005, the study examined those factors determining three variants of occupational choice of migrants. The three types of occupations studied are: self-employment without employees, self-employment with employees and salaried employment. The study which made use of both binary logit and multinomial regression approaches is unique in two ways: in the first place it is a study of returning migrants and second it disaggregated self-employment into two parts and used each one in his analysis.

In Nigeria, vocational choice and factors influencing it has been examined among secondary and university students. For instance, Onijigin (2009) investigates the determinants of career aspiration among 600 secondary school students in Ekiti State, Nigeria while Awujo (2007) carried out similar study among 410 secondary school students in Rivers State Nigeria. Factors like financial benefit, prestige of the profession, job security and child-rearing pattern are found to be influencing future career choice of respondents in both studies. The focus of studies by Osiruemu (2007) and Kinanee (2009) are on career decision-making determinants among female genders in Nigeria. While Osiruemu investigates the barriers to the choice of women occupation in Warri, Nigeria, Kinanee examined the determinants of career decision making among nurses in Rivers State Nigeria. None of the studies examined above has attempted to study the career aspiration of commercial auto-cycle riders in Nigeria and this is the gap that this study intends to bridge.

3. Methodology

3.1. Research Design and Instrument of Data Collection

For the purpose of empirically measuring the factors which influence the decision regarding self-employment in the formal or informal sector by our sampled respondents, we have chosen two states (Lagos and Ogun States) from the six states within the South Western Region of Nigeria, out of which one local government area from each of the two states were randomly selected for study. In Lagos, Ojo Local Government Area was chosen while Ado-Odo/Ota was chosen in Ogun State. The take-off points of commercial motorcycle taxis were located within the chosen areas of study and 55 and 45 of such locations were chosen from Lagos and Ogun states respectively. All okada operators who registered with each take-off locations form our sampling frame and a maximum of ten operators were randomly selected for interview. If the selected person was either not available or declined the interview, the next person in the list was selected as replacement. At the end of the survey exercise, seven hundred and seventy-seven questionnaires were found useable for the data analysis.

The data collection exercise employed a structured questionnaire which was administered by trained enumerators in each of the local government areas chosen for the study. Given the mobile nature of the respondents, the questionnaire, which was categorised into three sections, was made to be short and straight to the point with respect to the research questions. Section A, was concerned with general questions relating to the main reasons why the respondents chose to be involved in commercial motorcycle taxi riding, the previous capacity building efforts of the respondent, and his future career expectations. Section B enquired about the revenue and costs of operation while the last section concentrates on the bio-data of respondents as well as their expectations from the Government. The reliability test of the data set using the Cronbach alpha gave a result of sixty-four per cent.

3.2. The Model, the Data and Analytical Technique

The neo-classical economic theory relies on the utility maximization assumption in propounding the theory of occupational choice. According to Blau (1985), maximization of the individual's utility under the usual market constraints leads to the choice of occupation 1 over 2, if the marginal product of labour in occupation 1 is greater than that in occupation 2. For instance, the choice between employment in sector 1 and employment in sector 2, according to Borjas (1986), is explained using the model:

$$I_i = y_i - w_i = X_i\beta + \mu_i \dots \dots \dots (1)$$

Where:

y_i = expected net income from sector 1 (e.g. self-employment in informal sector) by individual i

w_i = expected net income from sector 2 (e.g. wage employment in formal sector) by individual i

X_i = vector of demographic and socio-economic characteristics of individual i which define the values of y_i and w_i .

B =coefficient vector; and

μ_i =error term for individual i

The probability of sector 1 employment for individual i is given by:

$$P_i = \Pr(I_i > 0) = \Pr(X_i\beta + \mu_i > 0) \dots \dots \dots (2)$$

Note that P_i is a latent variable which is not directly observable, while only dichotomous variable EMP_i is observed. By definition EMP_i is self employment in the informal sector. Thus:

$$EMP_i = 1 \quad \text{if } P_i > 0; \text{ and}$$

$$EMP = 0 \quad \text{Otherwise}$$

Therefore our basic equation in the general form is:

$$EMP_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_k X_k + \mu_k \dots \dots \dots (3)$$

EMP_i indicates the decision of individual ‘i’ with respect to taking up an informal sector employment or seek wage work in the formal sector. $EMPT_i$ is a binary variable equal to 1 if the respondent intends to settle for informal sector employment and zero, otherwise. The set of explanatory variables (listed and defined in Table 1) represented by vector X are those that are hypothesized to be influencing the categorical dependent variable. Various factors are posited to be affecting the decision of a typical ‘okada’ rider to prefer same or other type of job in the informal sector or ultimately leave the sector for a wage/salary employment in the formal sector. These factors include: Level of education (EDU) measured by the number of years in formal education, the age of the respondent (AGE), the number of years of experience in the labour market (EXP) as okada rider, Income level in current occupation (Y), marital status (MRT), whether or not the respondent has acquired any skills in the informal sector prior to engaging in okada riding venture (SKL), and migration status (MGS) as measured by whether the respondent is a native or migrant in the survey location. Other variables include the status of respondent whether hired rider of owner rider (OWN), accident history of the respondent (ACD) measured by the number of accidents sustained in the past, the weekly average number of hours supplied into the okada riding business (HRS), and region of origin of respondents (RGN).

The specific formulation of the model is thus given as:

$$EMP_i = \alpha_0 + \alpha_1 AGE + \alpha_2 EDU + \alpha_3 Y + \alpha_4 EXP + \alpha_5 HRS + \alpha_6 SKL + \alpha_7 MGS + \alpha_8 OWN + \alpha_9 MRT + \alpha_{10} RGN + \alpha_{11} ACD + \mu \dots \dots \dots (4)$$

AGE and EXP are measured in years, Y is measured as the income (in Nigerian Naira) realized in okada riding business in the previous week prior to the survey interview, HRS is average number of hours supplied per day in the previous week, SKL is a dummy variable which is 1 if the respondent has acquired any skill (e. g. carpentry, welding, vehicle repairs, etc) prior to engaging in informal taxi operation, and zero otherwise. The migration status of the respondent is score 1, if a native of the survey location and zero otherwise; OWN=1, if the respondent is an owner-rider,

and zero otherwise; MRT=1 if the respondent is married and RGN=1 if respondent is from any of the South-Western states in Nigeria. The a priori expectations regarding the co-efficient estimates (i.e. α_j ; $j=1,2,\dots,11$ of the explanatory variables are as follows: $\alpha_1, \alpha_5, \alpha_7 - \alpha_{10}$ cannot be determined a priori, $\alpha_2, \alpha_{11} < 0$; and $\alpha_3, \alpha_4, \alpha_6 > 0$.

Since the independent variable (EMP) is categorical, the application of the ordinary least squares becomes inappropriate (Gujarati and Porter; 2009). As a result, the logit model, which is an improvement over the probability model is employed since probability prediction of logit models is between the (0,1) limit. The Logit model is given by:

$$EMP'_i = \text{Ln} \left(\frac{P_i}{1 - P_i} \right) = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_k X_k \dots (5)$$

Thus EMP_i is the log of odds ratio that a respondent with characteristics X_i would eventually settle in the informal self-employment vocation rather than otherwise; such that:

$$EMP'_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_k X_k + \mu \dots \dots \dots (6)$$

Equation (6) which is explicitly formulated in (2) is the one estimated and interpreted in the following section.

4. Result and Discussion

4.1. Profile of the Respondents

All riders in the survey locations are male. As shown in Table 2, out of the total 777 respondents for the study, 55% are owner-operators while the remaining 45% are hired operators. The literacy level among the respondents is high as only 8% of the 776 respondents that reported their educational attainment never attended formal educational institution. Those that have completed primary education are 25%, while 55% and 12% have secondary and post-secondary educational attainment respectively. In terms of marital status, 32% of the 712 respondents that answered this question are single, 61% are married while the remaining 7% are in the Divorced/ Separated and widowed categories. Of the 371 respondents that reported having children, about half of them have 1-2 children, 40% are fathers to 3-4 children while the remaining have five children and above. However the average number of children per person is three.

The commercial auto-cycle riders are of two groups: the owner-riders and the hired-riders. The owners are self-employed individuals owning the auto-cycles either through cash purchase or hire purchase arrangements with sellers, and using the auto-cycles for commercial purposes. On the other hand, the hired riders are employees who are either paid on a daily basis or are asked to deliver to the owner a given sum of money on a daily or weekly basis and keep whatever is left as earnings after having maintained the auto-cycle.

Evidence on age from the data suggests that the operators are young prime-aged males since the mean age is 29.57 years. When disaggregated into different age groups, about 59% of the respondents are less than 30 years; 30% are in the 30-39 years age cohort, while the remaining 11% are aged 40 years and above.

Although the respondents for the study are drawn from Lagos and Ogun States of Nigeria, yet the results show that they represent all the geo-political divisions of Nigeria. For instance, while 73% of the respondents are origins of South-West Nigeria, 7.7% and 8% are respectively origins of South East and South South parts of Nigeria; while only 9.7% are from the Northern parts of Nigeria. The remaining 1.5% of the respondents are non-Nigerians. The geographical distribution of the origin of respondents suggests a high level of internal migration among operators. For instance, while 27% are non-natives of the two states where the survey took place, as high as 54% are non-native of the town/city of the survey location.

4.2. Determinants of Entry into the Commercial Auto-cycle Riding Occupation

From the results obtained from the analysis of data from the field survey, it is evident that some factors are important in attracting many of the operators to the employment and income opportunities of okada riding in the study area. Some of these are the relative ease of entry into the business, the relatively high returns associated with okada riding business, and the need to raise start-up capital for those planning to set up own businesses in the informal sector. For instance, when asked about the length of time required for training prior to riding the motorcycle taxi, the average training period computed from the responses of 637 operators is 2.3 months. In contrast, the average training period from other informal sector vocations (e.g. Vehicle Maintenance) which many of the operators have undertaken is 3.09 years. Also in terms of earning, average monthly income is over N38,000 which is about five times the minimum wage of N7,500 in 2008 when the data was collected. This average income level appears moderately high for an average working experience of 3.53 years as revealed by the survey data.

Another important determinant of entry into the commercial auto-cycle riding business is the previous skill development background of the operators. In Table 3, the skill levels in terms of the trade/craft learnt before engaging in present occupation is shown. Out of the 777 respondents, 573 of them have either learnt a craft (72.4%) or are in school for further studies (6.6%). The popular crafts learnt by these operators include Vehicle repairs (31.8%); Building and allied crafts (24.8%) and Trading (16.4%). Disaggregated by status, the owner-riders are more in each of the trade/craft categories than the hired-riders.

In order to mitigate the negative effects of the global economic downturn (such as high unemployment rate), many of the operators took advantage of the okada riding business to seek employment and income opportunities. As shown in Table 3, 67% of the operators (n=597) are on the job to raise capital either for business start-up or to finance further education. Only 7% are in the commercial auto cycle riding business because they could not find a formal sector alternative while 14% took up this vocation because of their preference for it. Classified into voluntary and involuntary factors, only 14% of the operators could be said to have picked up informal okada riding job voluntarily while the remaining 86% did so involuntarily. In spite of the relatively high returns to okada riders, the job is found to be risky. The rate of road accidents involving okada operators and their passengers is as high as 56% among the sampled respondents. Among those operators who have experienced auto-cycle accident, 43% of them had experienced one road crash while the others had had more than one road traffic accident. This is consistent with the results obtained in other similar studies (Akinlade and Brieger 2003/4; Rahman, 2006; Solagberu et.al 2006; Olawole et al, 2010).

4.3. Determinants of Expected Career Choice: The Binary Logistic Regression Approach

Given the combination of high level of risk and moderately high returns as discussed in section 4.2 above, this study sought to find out the future career expectation of the operators. The responses from the sampled *okada* operators reveal a very strong preference for self-employment in the informal sector as opposed to the formal. Out of the 684 respondents to the question on future career aspirations, 71% intend to settle in the informal sector to set up own enterprises along the trades/crafts they have learnt prior to getting involved in *okada* riding, 21% are interested in wage employment in the formal sector, while the remaining 8% are interested in the continuation of their job as commercial *okada* riders. The following section discusses the characteristics of intended stayers (in the informal sector self-employment) and intended leavers using the logic regression procedures.

In this study, we have carried out a binary logistic regression using equation (6) to assess the impact of a number of factors on the likelihood that respondents would choose either to remain in the informal self-employment as entrepreneurs or relocate to the formal sector. Table 4 shows the result of the logistic regression results and these are stated as regressions 1 to 3. In regression 1, all the variables that are hypothesized to distinguish informal sector potential stayers from the leavers were regressed against the binary independent variable. Four of these variables (EDU, Y, OWN, and RGN) are statistically significant at the specified level of confidence. EDU and Y variables have the expected sign showing that as formal educational attainment increases, the less is the likelihood of an operator choosing an informal sector self-employment while an increasing level of income in the sector increases the likelihood. Similarly, being an owner-rider (OWN) influences the likelihood positively while being an origin of South-West (RGN) decreases it in a statistically significant sense.

In regression 2, three of the variables that were not statistically significant (AGE, MGR and ACD) were dropped and the resulting regression gave an improved fit as the omnibus test of Chi-square improved from 18.8 to 50.58, number of observations included in the model increased phenomenally from 67 to 254, notwithstanding that the Pseudo-R² dropped slightly as measured by the Nagelkerke and Cox & Snell statistics. The Pseudo-R² measures the percentage of variations in the dependent variable accounted for by the explanatory variables in the model. Regression 2 has three statistically significant variables which are EDU, MRT and Y. As in Regression 1, both EDU and Y maintain the expected sign while being married (MRT) positively affects the log of odds of participating as self-employed in the informal sector rather than in the wage-earning occupation of the formal sector.

Regression 3 tests the influence of vocational training undertaken before engaging in the *okada*-riding occupation on the dependent variable. Those operators who have undertaken apprenticeship training before being compelled by lack of start-up capital to operate as commercial taxi operators are expected to behave differently in the labour market in terms of their choice of sector of employment. It is hypothesized that such persons would, all other things remaining equal, prefer self-employment option in the informal sector rather than seeking formal sector wage employment. This conjecture was confirmed in the empirical analysis reported in regression 3 as the SKIL variable is not only significant statistically, but the model also exhibits an improved fit. For instance, the omnibus test of Chi-square increased from 50.58 in model 2 to 66.59; correct classification of cases increased by 4% point from 74% to 78%; four of the explanatory variables (as opposed to three in Regression 2)

report statistical significance at the levels indicated, and the Pseudo R^2 increased from 18% and 25% to 2% and 33% respectively for the Cox & Snell, and Negalkerke statistics.

In summary, regression 3 shows that four variables are significant in their influence on the choice of occupation by okada operators in our selected areas of study. These variables are EDU, MRT, Y, and SKIL. The strongest predictor among these four significant variables is the SKIL variable recording an odds-ratio of 3.939 indicating that the operators with vocational skills are almost four times more likely to choose self-employment in the informal sector than wage employment in the formal sector. The behavior of EDU, MRT and Y in Regression 3 is similar to the way they are in Regression 1. The statistical non-significance of OWN in Regression 3 is surprising as it is expected that ownership and operation of motorcycle would be an incentive for such owners to continue with informal self-employment in the informal sector. However, the non-significance of OWN (in regression 3) may not be unconnected with the overriding influence of SKL which shows that the skilled operators behave similarly with respect to the choice of informal sector entrepreneurship irrespective of their status in current *okada* riding occupation.

5. Summary of Findings and Policy Implications

This study has confirmed the importance of education, earnings, marital status and skills learnt through the informal apprenticeship system as important determinants of employment choice in the informal sector among the respondents in the study area. While the log of odds of choice of informal employment decreases with increasing formal educational attainment, both the informal skills acquisition and current income generated in the informal sector increases it. It is clear that the educated are in the sector as a result of high unemployment coupled with the absence of social security benefit for the unemployed. It is reasonable therefore for them to seek temporary employment in the informal sector in line with the Todaro probabilistic migration hypothesis. But for those with no or low formal education, the Harris-Todaro model's prediction does not seem to hold since these class of people are drawn into the sector by the employment and income opportunities of the sector, given their demographic and human capital characteristics. Furthermore, this study shows that the higher the level of income earned in the informal self-employment, the higher is the log of odds of expectations of settling down in the sector for self-employment while those with previous apprenticeship skills training have the highest propensities to settle in the sector.

This study has brought about several policy implications. One, the provision of employment opportunity for the educated youths, especially those with graduate education would go a long way in achieving better allocation of human capital resources in the Nigerian economy. Rather than being compelled to take up temporary and highly risky '*okada*' riding job in the informal sector while searching for the desired formal sector employment, these graduates could have immediately secured jobs commensurate with their training and education and hence contributing optimally to economic development. Second, since previous informal skills acquisition is an important determinant of self-employment choice in the informal sector among okada riders, and this group of riders is in the job to obtain start-up capital, government should therefore alleviate the capital constraint for these classes of informal sector would-be entrepreneurs. This could be done either by direct credit guarantee scheme (by a relevant government agency like the National Directorate of Employment) or by direct grant to such members of the society.

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APPENDIX

TABLE 1
LIST OF VARIABLES USED IN THE LOGISTIC MODEL

S/No.	VARIABLES	DESCRIPTION	A PRIORI EXPECTATION
1.	Status of respondents (OWN)	Status=1, if owner and zero if hired	Cannot be determined a priori
2	Formal Education(EDUC)	Number of years spent in school	Negative
3	Experience (EXP)	Number of years of experience	Positive
4	Age	Age of respondents in years	Cannot be determined a priori
5.	Learnt a Trade? (SKL)	=1 if respondent learnt a trade before riding okada	Positive
6	Marital Status (MRT)	Married=1; zero otherwise	Cannot be determined a priori
7	Migration Status (MGS)	=1 if from South West	Cannot be determined a priori
8.	Accident? (ACD)	=1, if ever experienced accident	Negative
9.	N_Accidents (N_ACD)	Number of times accident was experienced	Negative
10.	Hours worked (HRS)	Number of hours worked in the previous week	
11.	Earnings (Y)	Amount of Earnings per week in Nigerian Naira*	Positive

Source: Derived from author's survey data

TABLE 2.
DISTRIBUTION OF RESPONDENTS BY STATUS AND BY PERSONAL CHARACTERISTICS

Main Variable	Derived Variables	Status of Operators				TOTAL	
		Hired Operators		Owner Operators			
		No.	Percent	No.	Percent	No.	Percent
Age of Respondents in years	Less than 20	5	50	5	50	10	2.2
	20-29 Years	133	52	122	48	254	57.04
	30-39 Years	57	43	76	57	133	29.75
	40-49 Years	15	34	29	66	44	9.84
	50 Years and over	4	80	1	20	5	1.11
	TOTAL	214	48	233	52	447	100
Age since riding Okada	<20 Years	51	60	34	40	85	13.6
	20-29 years	184	43	240	57	424	67.7
	30-39 years	30	34	59	66	89	14.2
	40-49 years	10	38	16	62	26	4.2
	50yrs & over	2	100	-	-	2	0.3
	TOTAL	277	44.2	349	55.6	626	100
Highest Formal Educational Attainment	No formal education	34	55	28	45	62	8.0
	Primary	69	35	126	65	195	25.1
	Secondary	200	47	224	53	424	54.6
	Post-Secondary	43	45	52	55	95	12.3
	TOTAL	346	44.6	430	55.4	776	100
Region of Origin	South West	236	48	257	52	494	73.1
	South East	18	35	34	65	52	7.7
	South South	24	44	30	56	54	8.0
	Northern Nigeria	28	43	37	57	65	9.7
	Non-Nigerians	3	30	7	70	10	1.5
	TOTAL	347	46	430	54	674	100
Marital Status	Married	174	40	263	60	437	61.4
	Single	115	50	113	50	228	32
	Divorced/Widowed	30	64	17	36	47	6.6
	TOTAL	319	44.8	393	55.2	712	100
No. Of Children	1-2	74	40	109	60	183	49.3
	3-4	64	44	81	56	145	39.1
	5 and over	22	51	21	49	43	11.6
	TOTAL	160	42.8	211	57.2	371	100

Source: Author's computation from survey data.

TABLE 3. DISTRIBUTION OF RESPONDENTS BY SOME BUSINESS CHARACTERISTICS

Main Variable	Derived Variables	Status of Operators			TOTAL		
		Hired	Owner	%	No.	%	No.
Types of Craft Learnt Before Engaging in 'okada' Riding	Building & Allied trades	50	92	35.2	92	64.8	142
	Vehicle Repairs	77	105	42.3	105	57.7	182
	Trading	39	55	41.5	55	58.5	94
	Garment and Shoe Manufacturing	39	39	50	39	50	78
Years spent Learning Trade/Craft	Farming & Agro Processg.	5	6	46	6	54	11
	Miscellaneous	9	19	32	19	68	28
	Schooling	16	22	42	22	58	38
	ALL	235	338	41	338	59	573
Major Reason for Engaging in 'okada' riding business	Between 1-2 Years	50	54	48	54	52	104
	Between 3-4 Years	73	81	47	81	53	154
	Over 4 Years	24	21	53	21	47	45
	ALL	147	156	49	156	51	303
Average Monthly Earnings from Okada Riding Business	To raise money for business start-up/Educ	160	244	40	244	60	404
	Love for Self-empt.	47	36	57	36	43	83
	Post-formal sector empt.	34	36	49	36	51	70
	No formal sector Job	15	25	38	25	62	40
Any Accident?	TOTAL	315	371	43	371	57	597
	Up to ₦9,999	68	25	73	25	27	93
	₦10,000 - ₦19,999	82	65	55.8	65	44.2	147
	₦20,000-29,999	60	102	37	102	63	162
If Yes, how many times (N_Accident)	₦30,000-39,999	21	42	33	42	67	63
	₦40,000-49,999	13	51	20	51	80	64
	₦50,000-59,999	6	14	30	14	70	20
	₦60,000 and over	39	58	40	58	60	97
Mean	ALL	289	357	45	357	55	646
	Mean	₦33,334 (n=290)	₦42,174 (n=357)		₦42,174 (n=357)		₦38,271
	No	160	184	46.5	184	53.5	344
	Yes	139	159	46.6	159	53.4	298
Once, only	ALL	299	343	46.6	343	53.4	642
	Once, only	49	67	42	67	58	116
	Twice, only	39	39	50	39	50	78
	Three times and over	27	46	37	46	63	73
ALL	115	152	43	152	57	267	

Source: Author's computation from survey data.

TABLE 4
RESULT OF LOGISTIC REGRESSION
(DEPENDENT VARIABLE: INFORMAL SECTOR SELF-EMPLOYMENT)

VARIABLES	REGRESSION 1			REGRESSION 2			REGRESSION 3		
	β -estimate	Sig.	Odds Ratio	β -estimate	Sig.	Odds Ratio	β -estimate	Sig.	Odds-Ratio
Constant	3.407	0.228	30.161	2.723	0.002	15.227	1.100	0.249	3.005
EDU	-0.192**	0.068	0.826	-0.264**	0.000	0.768	-0.197**	0.000	0.822
AGE	-0.020	0.755	0.980						
EXP	-0.212	0.135	0.809	-0.001	0.984	0.999	0.007	0.916	1.007
MRT	1.287	0.168	3.622	0.969**	0.003	2.636	0.779*	0.026	2.180
MGR	-0.434	0.566	0.648						
Y	0.0001*	0.033	1.000	0.001*	0.033	1.000	0.0001*	0.033	1.00
OWN	1.306**	0.099	3.692	0.380	0.336	1.463	0.247	0.451	1.261
ACD	-0.438	0.062	0.645						
RGN	-1.893**	0.052	0.151	-0.487	0.171	0.615	-0.429	0.247	0.651
HRS	-0.003	0.895	0.997	-0.002	0.845	0.998	-0.002	0.892	1.281
SKL							1.371**	0.000	3.939
H & L Test:									
-Chi-Square	1.498			3.407			4.144		
- d.f.	8			8			8		
- Sig.	0.993			0.906			0.844		
Pseudo-R²:									
-Cox & Snell	0.245			0.181			0.231		
-Nagelkerke	0.352			0.258			0.330		
Omnibus Tests of:									
-Chi-Square	18.848			50.581			66.593		
-d.f.	11			7			8		
-Sig.	0.064			0.000			0.000		
N	67			254			254		
Overall Correct Classification	77.1%			74%			78.3%		

Note: *: Significant at 1% critical level or better; *: Significant at 5% critical level or better
 **: Significant at 10% critical level or better.

Source: Computed by the author from survey data

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