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# The Drivers of Financial Inclusion in Nigeria

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*Abstract:*
*Financial inclusion has been closely linked to economic growth. This study identifies income, education, age, gender, urban-rural classification and access, as key drivers of financial inclusion and analyses their impact onthe likelihood of being banked in Nigeria. The study uses a survey of over 20,000 respondents in 37 states in Nigeria from 2008 to 2016. The results show that the average income and education levels in Nigeria significantly determine the likelihood of having an account with a bank or any other formal financial service provider. Being a woman, a youth and living in a rural area, however, have significant negative effects on financial inclusion. Lastly the lower the average travel time to the nearest branch of a bank, the more likely an individual will be financially included in Nigeria.The findings will inform policy interventions in areas such as financial literacy and poverty alleviation. The interventions can be targeted to the relatively financially excluded groups as revealed in the study: the youth, the women and the rural dwellers*

*Keywords: financial inclusion, income, education, Nigeria*

## 1. Introduction

Unlike the developed countries, developing countries face the challenge of reducing income inequality and engendering inclusive growth as income inequality has been shown to have a significant negative effect on economic growth (Kim, 2016). However, the author shows that financial inclusion reduces the income inequality in low-income countries. It is therefore imperative for developing countries to improve financial inclusion in order to reduce income inequality and fast-track sustainable and inclusive economic growth. In Nigeria today, 40 million of the 95 million adult population are financially excluded without access to formal or informal financial services while 47 million have access to formal financial services (Enhancing Financial Innovation & Access (EFInA), 2017). About a decade ago, the country set a target of reducing financial exclusion to 20 percent of the adult population by the year 2020. Realizing this target has, however, been challenging over the years as the country continues to look for policy frameworks that will help in bringing the unbanked and under-banked into the formal financial system. There is, therefore, a need to investigate the determinants of financial inclusion to help the government in formulating financial inclusion policies.

A number of factors have been identified as key drivers of financial inclusion from extant studies on the topic. Key among these determinants are education/literacy (Bernheim, Garrett, & Maki, 2001; Hilgert, Hogarth, & Beverly, 2003; Mandell & Klein, 2009; Lusardi, Mitchell, & Curto, 2010; Cole, Sampson, & Zia, 2011; Bruhn, Leao, Legovini, Marchetti, & Zia, 2016); income (Cole, Sampson, & Zia, 2011; Pena, Hoyo, & Tuesta, 2014; Cámara & Tuesta, 2015; Bapat & Bhattacharyay, 2016; Davutyan & Öztürkkal, 2016; Uddin, Chowdhury, & Islam, 2017; Wang & Guan, 2017); age (Lusardi, Mitchell, & Curto, 2010; Bapat & Bhattacharyay, 2016; Bruhn, Leao, Legovini, Marchetti, & Zia, 2016; Davutyan & Öztürkkal, 2016); gender (Pena, Hoyo, & Tuesta, 2014; Cámara & Tuesta, 2015) and urban versus rural location (Cámara & Tuesta, 2015; Davutyan & Öztürkkal, 2016). Other factors examined include information and communication equipment (Andrianaivo & Kpodar, 2011; Wang & Guan, 2017) and number of household members (Bapat & Bhattacharyay, 2016). It is expected that the government policies directed at these drivers will not only improve financial inclusion and reduce income inequality but will also fast-track sustainable and inclusive economic growth.

The studies above show that the higher the average educational level of the adult population, the more likely the individual is financially included. An educated adult is more likely to be knowledgeable in money management and better understand the benefits of using common financial services such as savings and loans when compared to an adult with little or no education. Also, as shown by the studies, income level is equally positively related to financial inclusion. The higher the income level of an adult, the more likely the adult will have access to financial services. People with no or low income usuallyhave nothing or little to save and cannot also afford the cost of other financial services such as money transfer. In terms of age, extant studies show that youths are more financially excluded than the older adults. Possible explanation is the more prevalent unemployment among the youth. The other factors, as revealed by the studies, are the gender and location of an individual in terms of urban versus rural area. The studies show that women are more likely to be financially excluded than their male counterparts. The high exclusion rate among women may be related to the relatively low educational and income levels among women when compared to men. Also, financial inclusion is higher among urban dwellers when compared to the rural dwellers. For economic reasons, most bank branches and other financial access points are located in the urban areas.

While various studies have used consumer data to investigate the drivers of financial inclusion in a number of developing countries,

there is little or none that has used the consumer data from Nigeria. This study uses a large survey of individuals and households in Nigeria to analyze the key drivers of financial inclusion. The study analyzes the determinants of financial inclusion identified in the literature to determine their effects on financial inclusion in Nigeria. Also since the likelihood of having a bank account may also depend on the closeness of a bank branch to a potential customer, this study also includes the average travel time to the nearest bank branch in the analysis. It is expected that the shorter the average travel time to the nearest bank branch, the more likely an adult will be financially included. Efforts can therefore be made by the government and the financial service providers to locate a bank branch or any other viable financial access point as close as possible to potential customers. Findings from this study on the relationship of the other drivers (education, income, age, gender and urban-rural location) can also be used to formulate policies that will improve financial inclusion and ultimately to a more sustainable and inclusive growth in Nigeria.

The next section reviews the literature on the key drivers of financial inclusion. It discusses the relationships of income, education, age, gender and urban versus rural location identified as major determinants of financial inclusion on the likelihood of being banked. It also discusses the impact of closeness of bank branch on the likelihood of being financially included. Section three discusses the methodology used in this study and includes discussions on the sample and the data used, and the development of models for the analysis of the data. Findings from the analysis are discussed in the fourth section while section five concludes the paper.

## 2. Literature Review

This section reviews the literature on the key drivers of financial inclusion. A number of factors identified in the literature as determinants of financial inclusion are investigated in this study. These drivers include income, education, age, gender and urban versus rural classification of the adult population in a country. In addition to these demand-side determinants of financial inclusion, the closeness of an individual to the nearest bank branch is also included in the analysis. These drivers are analysed using the survey data from the states in Nigeria. The findings of extant studies on the effects of the above factors on the likelihood of being financially included are discussed in the following sub-sections.

### 2.1. Income and Financial Inclusion

An individual's income level has been shown to be a key determinant of having a bank account. About 40 percent of adult Nigerians state, they do not use bank accounts because they have no jobs or irregular jobs (Enhancing Financial Innovation & Access (EFInA), 2017). In other studies, Cole, Sampson, & Zia(2011) combine novel survey evidence from Indonesia and India with a field experiment and finds that financial deepening may be easily achieved through low-cost financial services for low-income people. Therefore, to fast-track financial inclusion, efforts should be made to bring the low-income people into the formal financial systems. Also, Pena, Hoyo, & Tuesta(2014), in their findings using data from Mexico, show the importance of income in driving financial inclusion. Their results show a positive correlation between receiving a wage or salary and being financially included. Findings from similar studies using data from other countries show that having a low income reduces the likelihood of being included in the formal financial system. These countries include Peru (Cámara & Tuesta, 2015), India (Bapat & Bhattacharyay, 2016), Turkey (Davutyan & Öztürkkal, 2016), Bangladesh (Uddin, Chowdhury, & Islam, 2017) and a cross-country study (Wang & Guan, 2017).

### 2.2. Education and Financial Inclusion

Another major determinant of financial inclusion from literature is the average educational level of the adult population. The findings show that the more educated an individual is, the more likely he or she is financially included. It is expected that education will also play a key role in determining the likelihood of being financially included in Nigeria. The reasons reported for not using a bank account by a sizable percentage of adult Nigerians are related to literacy especially financial literacy (Enhancing Financial Innovation & Access (EFInA), 2017). For example, 2.7 percent give "can't read or write" as the main reason for not using a bank account while 4.1 percent claim they prefer cash to using bank account. 5.2 percent cite "too much documentation required" even when there is no document requirement for the most basic saving account. Also, 7.7 percent claim it is expensive to have a bank account even when customers are not charged for most categories of saving accounts. The above show that with better education, financial inclusion is likely to be improved. In their seminal work on the impact of education on financial behaviour across the states in the US, Bernheim, Garrett, & Maki(2001) show that high school financial education has a gradual positive effect on financial behaviour when the students reach adulthood. Findings from the survey data of the University of Michigan's monthly Surveys of Consumers in 2001 by Hilgert, Hogarth, & Beverly(2003) also show that financial knowledge positively affect financial behaviour,
Other studies that examine the impact of literacy on financial inclusion include those by Mandell & Klein (2009), Lusardi, Mitchell, & Curto (2010), Cole, Sampson, & Zia(2011) and Bruhn, Leao, Legovini, Marchetti, & Zia(2016) among others. The studies show the important roles financial literacy plays in driving financial inclusion. The higher the educational level of an individual, the more likely he or she would have been taught the basic principles of money management and financial planning formally in school either as a separate curriculum or included as topics in such subjects as mathematics, social/business studies and economics. It is thus expected that a more educated adult is more likely to appreciate the benefits of using formal financial services. The effect of education on financial inclusion is therefore examined using the Nigerian data in this study.

### 2.3. Age and Financial Inclusion

Another key driver of financial inclusion is the age distribution of the adult population. Findings from other countries show that youths and young adults are more likely to be financially excluded when compared to the older adults. This study analyses the Nigerian data to determine the impact of age on the likelihood of being financially included. Initial findings show that 53 percent of

the unbanked population in Nigeria are in the age groups 18-24 and 25-34 years (Enhancing Financial Innovation & Access (EFInA), 2017). These initial results suggest that the youth and young adult should be the target of interventions aimed at improving financial inclusion. Extant studies have also shown that these age groups lag behind in financial inclusion when compared to the older adults. For example, Lusardi, Mitchell, & Curto(2010) use the 1997 National Longitudinal Survey of Youth in the US to show that fewer than one-third of young adults possess basic knowledge of interest rates, inflation and risk diversification. and thus, more financially excluded when compared to the older adults. Davutyan & Öztürkkal(2016), using the Turkish data, also show that mature people are more likely to save and to borrow from banks as well as to borrow formally when compared to the youths.

## 2.4. Gender and Financial Inclusion

It is also important to investigate the impact of gender on the likelihood of being financially included. The findings of the effect of gender on financial inclusion will help the policymakers and the financial service providers to identify priority segments to target for financial inclusion interventions. Currently the female population in Nigeria are more financially excluded when compared to their male counterparts. 55 percent of the unbanked adults in Nigeria are female (Enhancing Financial Innovation & Access (EFInA), 2017). Pena, Hoyo, & Tuesta(2014) show that in Mexico, being a woman is a significant variable in driving financial inclusion as less women access formal savings and credits when compared to men. The findings from Peru also show that being a woman reduce the likelihood of being included in the formal financial system (Cámara & Tuesta, 2015). Empirical evidence of the impact of gender on financial inclusion in Nigeria will greatly help the country's drive to improve financial inclusion and fast-track sustainable and inclusive growth.

## 2.5. Urbanization and Financial Inclusion

This study hypothesizes that urban dwellers are more likely than the rural dwellers to be financially included. Urban adults have easier access to formal financial services as most branches of formal financial service providers are located in the urban areas. Urban dwellers are therefore expected to be more likely to be financially included. In Peru, according to Cámara & Tuesta(2015), living in rural areas reduce the likelihood of being financially included. Also, Davutyan & Öztürkkal(2016), using the Turkish data, show that urbanization is positively related to financial inclusion as more urban dwellers are more associated with loan usage. It is expected that a greater percentage of adult urban Nigerians will be more financially included as initial findings show that 78 percent of the unbanked population in Nigeria live in the rural areas (Enhancing Financial Innovation & Access (EFInA), 2017). A further analysis of the impact of urbanization on financial inclusion is carried out in the next section. Although it is more economically viable for providers of formal financial services to cite their branches in the urban areas, the extent of the impact of the urban-rural classification of a Nigerian adult on financial inclusion will necessitate various interventions to reach the unbanked rural adults.

## 2.6. Access and Financial Inclusion

In addition to the above-listed factors, it is also proposed in this paper that access to financial services will be a key factor in being financially included. It is argued that even with the right financial literacy and income, an adult with easier access to a financial service point is more likely to be financially included. Currently, more than half of the unbanked adult population in Nigeria has to travel more than 30 minutes to the nearest bank branch (Enhancing Financial Innovation & Access (EFInA), 2017). This distance constraint, in addition to the constraints identified earlier, reduces the likelihood of being financially included. This paper investigates in detail the impact of the travel time to the nearest bank branch on the likelihood of being financially included in Nigeria. It is expected that the more time it takes to get to the nearest bank branch; the less likely it is for the individual to be financially included.

The key drivers of financial inclusion identified above are the ones considered in this study. However, other determinants of financial inclusion that have been studied in the literature include the use of information and communication equipment (Andrianaivo & Kpodar, 2011; Wang & Guan, 2017) and the number of household members (Bapat & Bhattacharyay, 2016). The advent of mobile phones and other technology-driven channels such as automated Teller Machines (ATMs) and internet have been identified as a more cost-effective channel of delivering financial services to the unbanked population (McKinsey Global Institute, 2016). Majority of adult population in developing countries, including Nigeria, own mobile phones and mobile phones have been particularly successfully used in Kenya to deliver financial services to the unbanked population. This study investigates the impact of income, education, age, gender, urbanization and travel time to nearest bank on the likelihood of financially included using the data across the 37 states in Nigeria**.**

## 3. Methodology

This section analyses the relationship between the key drivers of financial inclusion and the likelihood of being financially included. The data for the average income level, educational level, age, gender, urban-rural classification and travel time to the nearest bank branch from the survey of adult Nigerian across the states in Nigeria is used in this study the impacts of these drivers of financial inclusion on the average rate of financial inclusion in each state in Nigeria over a number of years are analysed using panel data modeling. The required data are sourced from the Enhancing Financial Innovation & Access' (EFInA) Access to Financial Services in Nigeria survey conducted in the years 2008, 2010, 2012, 2014 and 2016.

## 3.1. Sample and Data

The data for drivers of financial inclusion and financial inclusion measures are sourced from the survey of over 20,000 adult Nigerians across the 36 states in Nigeria and the country's Federal Capital Territory by EFInA. EFInA is a financial sector development

organization that promotes financial inclusion in Nigeria. The organization is funded by the UK's Department for International Development (DFID) and by the Bill & Melinda Gates Foundation. The respondents in the surveys are properly weighted along the socio-economic and demographic groups in Nigeria the average income level, educational level, age, gender and urbanization for each of the states are estimated over the five survey years 2008, 2010, 2012, 2014 and 2016. The financial inclusion rate of each of the 37 states for the five survey years are also estimated to make a panel of 185 state-year data.

### 3.1.1. Independent Variables
Theaverage income level, educational level, age, gender, urban-rural classification and travel time to the nearest bank branch for each state are used as the explanatory variables in this study.These variables are as defined in the data definition section.

### 3.1.2. Financial Inclusion Variable
The explained variable in this study is the percentage of the adult population in each state that have an account in a bank or in any other formal financial service provider. This measures the rate of financial inclusion in each of the state as a state with a higher percentage has more of its adult population having access to formal financial services when compared with those without formal access. The analyses to follow later in this section are therefore expected to show how the identified drivers of financial inclusion affect the rate at which adult population in Nigeria is financially included. For example, the results are expected to show whether financial inclusion with improve with increase in average income or educational level.

### 3.1.3. Data Definition
The independent and the dependent variables used in this study are as defined in Table1.

| Variable | Type /Level | Description |
| --- | --- | --- |
| Income | Independent | The average monthly income of the adult population in a state |
| Education | Independent | The average rank of the highest educational level of the adult population in a state. The variable is ranked from the minimum of zero (no education) to 7 (post-university education) |
| Age | Independent | The average age of the adult population in a state. The minimum age is 18 |
| Gender | Independent | The percentage of the adult population in a state that are female |
| Urban-Rural Classification | Independent | The percentage of the adult population in a state that dwell in the rural areas |
| Travel Time to Bank Branch | Independent | The average travel time to the nearest bank branch in a state, measured in minutes |
| Financial Inclusion | Dependent | The percentage of the adult population in a state that are banked or that have access to formal financial services |

*Table 1: Descriptions of Variables*

### 3.2. The Method of Analysis
Over the five survey-year period, regression models for panel data analysis are used to analyse the data. Pooled ordinary least squares (POLS), fixed effect and random effect regression models are used in the analysis. Unlike the POLS regression models, the fixed effect regression models will control for the state-specific factors that may bias the results of the POLS models. Also, the random-effect regression models will also be developed to investigate how the effects of the differences in the state-specific factors affect financial inclusion rates in Nigeria. The results of the three models are analysed to determine the model that best fit the relationship.

### 3.3. Model Specifications
In this sub-section, the POLS, the fixed and the random effect models that examine the effects of income, education, age, gender, urban-rural classification and travel time to bank on financial inclusion are developed. The pooled OLS model for the effects of the drivers on financial inclusion is specified in (1).

$$banked_i = \beta_0 + \beta_1 inc_i + \beta_2 educ_i + \beta_3 age_i + \beta_4 gender_i + \beta_5 urban\_rural_i + \beta_6 dist\_bk_i + \varepsilon_i \qquad (1)$$

where$banked_i$ is   the financial inclusion rate for each state for each year i; $\beta_0$ is the intercept of the model; $inc_i$, $educ_i, age_i$, $gender_i, urban\_rural_i$and $dist\_bk_i$ are the income level, educational level, age, gender, urban-rural classification and average travel time to the nearest bank branch variables respectively; $\beta_1$, $\beta_2, \beta_3$, $\beta_4$, $\beta_5$and $\beta_6$ are the coefficients for the income level, educational level, age, gender, urban-rural classification and average travel time to the nearest bank branch respectively and finally $\varepsilon_i$is the error term for the model.

To investigate the fixed effects of the relationships between the drivers and financial inclusion, a fixed effect regression model is developed. The fixed effect model for the relationship is estimated using the least squares dummy variable (LSDV) regression and by within effect estimation model. The LSDV model is specified in (2):

$$banked_i = \beta_0 + \beta_1 inc_i + \beta_2 educ_i + \beta_3 age_i + \beta_4 gender_i + \beta_5 urban\_rural_i + \beta_6 dist\_bk_i + u_1 state_1 + u_2 state_2 + u_3 state_3 + \cdots + u_{36} state_{36} + \varepsilon_i \qquad (2)$$

The variables are as defined for the pooled OLS model. $state_1$, $state_2, state_3 ... state_{36}$ are dummy variables for the 36 states used, the 37th state is not included to avoid perfect collinearity. $u_1$, $u_2, u_3 ... u_{36}$ are the coefficients of the dummy state variables. In addition

to the LSDV fixed effect models, within group fixed effects are also estimated for the fixed effect model using the Stata Statiscal package. F-test is used to compare the fixed effect model with the pooled OLS to determine the presence of fixed effect.

Finally, the random effect for the relationship, developed using the feasible generalized least squares (FGLS) method, is estimated. The Lagrange multiplier (LM) test is used to determine the presence of random effects in the relationship while the Hausman test is used to compare fixed and random effects in the relationship.

## 4. Results and Discussion

### 4.1. The Results
Table 1. shows the descriptive statistics of the independent and the dependent variables.

| Variables / Statistics | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Income | 185 | 5696.58 | 52026.88 | 17645.43 | 8100.641 |
| Education | 185 | 0.683703 | 4.416641 | 2.612201 | 0.898943 |
| Age | 185 | 30.54349 | 44.6349 | 36.23009 | 3.452488 |
| Gender | 185 | 0.279812 | 0.639727 | 0.490378 | 0.050842 |
| Urban-Rural Classification | 185 | 0.042503 | 1 | 0.709289 | 0.224383 |
| Travel Time to Bank | 185 | 14.49736 | 51.90308 | 31.28003 | 8.000749 |
| Financial Inclusion | 185 | 0.027658 | 0.864266 | 0.381237 | 0.18727 |

*Table 2: Descriptive Statistics*

The minimum monthly income observed in Nigeria in the period is 5,697 Naira (USD15), the maximum monthly income is 52,027 Naira (USD140) and the average monthly income is 17,645 Naira (USD48).The minimum educational level is 0.68 on a scale of 7, the maximum is 4.4 while the average educational level in Nigeria is 2.6 which is equivalent to the completion of a Junior High School or the Ninth Grade. The minimum average age for the respondents in all the 37 states is 30.5 years while the maximum average age is 44.6 years. The average age of all respondents in the survey is 36 years. The results also show that the gender of the survey respondents in all the years is almost evenly distributed between the male and the female. On the other hand, on average about 71 percent of Nigerian stay in the rural areas. For the travel time to the nearest bank branch, the minimum average for the respondents in all the states is 14 minutes; the maximum average is 52 minutes while the average travel time for all respondents is 31 minutes. Finally, the minimum average banked adult population in the states is 2.8 percent; the maximum average is 86.4 percent while the overall average is 38.1 percent

The results of the pooled OLS model (1), the LSDV fixed effect model (2) and the random effect model on the effects of income, education, age, gender, urban-rural classification and the travel time to bank branch on financial inclusion rate are shown in Table 3.

| Financial Inclusion Rate | Pooled OLS | Fixed effect model | Random effect model |
|---|---|---|---|
| Income | .0000101*** (.0000011) | .0000111*** (.00000124) | .000010*** (.00000111) |
| Education | .0759149*** (.0091804) | .1009867*** (.0224455) | .0759149*** (.0091804) |
| Age | .0105349*** (.0021823) | .0118329*** (.0050487) | .0105349*** (.0021823) |
| Gender | .4909793^^^ (.1369746) | .7119144*** (.1495391) | .4909793*** (.1369746) |
| Urban-Rural Classification | -.123361*** (.0444284) | .0071075 (.0731509) | -.123361*** (.0444284) |
| Travel Time to Bank | .0011923 (.0010655) | .0027554*** (.0012088) | .0011923 (.0010655) |
| Intercept | -.5672398*** (.1124678) | -.9468864*** (.2514342) | -.5672398*** (.1124678) |
| F-test (Model) | 98.99*** | 16.58*** | 593.96*** |
| DF | 178 | 142 | 142 |
| $R^2$ | 0.7694 | 0.8306 | |
| SSE (SRMSE) | .035070 | .035070 | |
| SEE or $\hat{\sigma}_v$ | .008359 | .007696 | .08772542 |
| $\hat{\sigma}_u$ | | | 0 |
| $\Theta$ | | | .0 |
| Effect Test | | 1.43* | 0.00 |
| N | 185 | 185 | 185 |

*Table 3: Effects of drivers of financial inclusion on financial inclusion rate*
*Standard errors in parenthesis; Statistical significance: \*<.1, \*\*<0.05, \*\*\*<0.01*

The pooled OLS, the fixed effect and the random effect models are all significant at 0.01 level. However, while the F-test shows that there are significant fixed effects in the relationship being investigated, the LM test shows that are no significant random effects in the relationship. Therefore, the fixed effect model presents the best goodness-of-fit for the relationship between the identified drivers of financial inclusion and the likelihood of being banked, and is therefore used in the analysis.

*4.2. The Impact of the Drivers of Financial Inclusion on Financial Inclusion Rate*
The results of the fixed effect model used in the analysis show that the identified drivers: income, education, age, gender, urban-rural classification and the travel time to the nearest bank branch explain 83 percent of the changes in the financial inclusion rate in Nigeria. The results thus show that these drivers are key in determining the likelihood of being banked in Nigeria. The effects of each of the drivers on the likelihood of being financially included are explained in the subsections that follow:

4.2.1. Income
The coefficient of income variable at 0. 0000111.is positive and significant at 0.01 level. This shows that income level has a positive significant impact on the likelihood of being financially included in Nigeria. The results suggest that a one unit or a one Naira increase in average monthly income in Nigeria will increase financial inclusion rate by 0.0000111 or 0.00111 percent. In other words, a 1,000 Naira (USD2.5) increase in average monthly income will lead to a 1.11 percent rise in financial inclusion. These findings therefore suggest that financial inclusion can be improved in Nigeria through conditional cash transfers to the extremely poor Nigerians to alleviate poverty. Empowerment programmes in forms of soft loans and input subsidies should also be targeted at micro, small and medium enterprises (MSMEs) and farmers. Efforts should also be made by the providers of financial services towards using cost-effective digital channels to deliver financial services to the financially excluded adult population. The unbanked should be forced to access the cash transfers and other cash incentives through a formal cost-effective channel. These interventions are expected to improve average monthly income and financial inclusion and ultimately reduce income inequality and fast-track sustainable and inclusive economic growth.

4.2.2. Education
The coefficient of education is also significant at 0.01 level with a value of 0.1009867. This shows that financial inclusion rate will increase with increase in average educational level of the adult population. The results show that a one unit increase in average educational level will lead to an increase of 0.1009867 or a 10.1 percent increase in financial inclusion. In other words, if the average educational level in Nigeria can be increased to senior high school or 12th grade from the present average of junior high school, we are likely to see a rise in financial inclusion of more than 10 percent. The current national educational policy is Universal Basic Education (UBE) which provides free compulsory education up to the junior high school level. The findings however suggest that extension of this policy to the senior high school level will bring about the desired upsurge in financial inclusion. In the short term, financial literacy curriculum can be developed and delivered formally at junior high schools and informally to target groups across the country.

4.2.3. Age
The results in Table 4equally shows that the age of an adult has a positive effect on the likelihood of being financially included. The coefficient of age at 0.0118329 is significant at 0.01 level. These figures show that the older an adult population is in Nigeria, the more likely he or she is financially included. The results also show that the youths and the young adults are more financially excluded and should be given priority in interventions directed at improving financial inclusion in Nigeria. For example, empowerment programmes should be targeted more at the youths to reduce youth unemployment rate and improve their average income. Other interventions to reduce the cost of accessing formal financial services should also be provided to the young people. Bank account openings can be done for the youths in their schools with some incentives given to them for every deposit they make into the accounts. The youths should also be given priority in financial literacy interventions as financial education programme targeted at the youths is more likely to result in higher financial inclusion rate than the one targeted at the older age groups.

4.2.4. Gender
The results also show the relationship between the percentage of female population in the state in Nigeria and financial inclusion rate in the state. The findings show that the female adult population in Nigeria has a positive significant relationship with financial inclusion and therefore should attract special interventions to improve financial inclusion. Initial findings show that a greater part of female adult population in Nigeria is financially excluded. Therefore, empowerment and financial literacy programmes should be more targeted at women than the men

4.2.5. Urban-Rural Classification
Table 5shows that the relationship between urban-rural classification and financial inclusion is positive but insignificant. However initial findings show that as high as 78 percent of the unbanked adult population in Nigeria dwells in the rural areas. In addition to targeting the young adults and female adult population for empowerment and financial literacy intervention programmes, the rural dwellers should equally be a priority segment for the financial inclusion intervention programmes.

4.2.6. Travel Time to the Nearest Bank Branch
The coefficient of the travel time to nearest bank branch is 0.0027554 and is significant at 0.01 level. This shows that the average distance to the nearest bank branch has a positive impact on the likelihood of being financially included. The findings in the earlier section show that more than half of the adult population in Nigeria spend more than 30 minutes to get to the nearest bank branch. To improve financial inclusion, it is necessary to locate financial access points as close as possible to the individual adults in the country. While it may not be economically viable to site more bank branches than necessary across the country, other viable access points may

be considered as channels for providing financial services especially in rural areas. Viable channels that have been successfully used as last-mile channel for delivering financial services are the bank and/or mobile money agents. In agency banking, owners of small shops in areas that are far from the main bank branches are used to deliver financial services to the residents that are very close to them. Such financial services include account opening cash in, cash outand other financial transactions including money transfers and bill payments. The agents mostly use digital channels such as mobile phones to deliver the financial services to the customers. The agents are paid commissions by the banks or any other financial service provider they represent.

## 5. Conclusions
This paper identifies the key drivers of financial inclusion in the literature and uses the state-wide data from Nigeria to provide the evidence for their impact on financial inclusion. The key determinants of financial inclusion investigated include income level, educational level, age, gender, urban-rural classification and average travel time to the nearest bank branch. The paper argues that income and educational levels will positively affect the likelihood of being financially included. It is also argued that young adults, women and rural dwellers are more likely to be financially excluded in the society. The paper equally sets out to show that the closer an individual is to the nearest bank branch, the more likely he or she is banked. The study uses a sample of over 20,000 adult Nigerians across the 37 states in Nigeria to explore the impact of the drivers on the likelihood of being banked. The results show that income and educational level positively affect the likelihood of being banked in Nigeria. The higher the average income and highest educational qualification, the more likely an adult Nigerian will be banked. The findings also show that young adults, women and rural dwellers are more likely to be financially excluded in Nigeria. The average travel time to the nearest bank branch is also a key determinant of the likelihood of being financially included. The results therefore show that to improve financial inclusion and enjoy the attendant sustainable and inclusive economic growth, the government and other key stakeholders need to provide interventions in some key areas. These interventions will include provision of conditional cash transfers to the extremely poor adult population via a formal financial service channel. Empowerment programmes in form of soft loans and input subsidies also need to be provided with priorities given to the identified financially excluded segments of the society. These top priority segments include the youths, the women and the rural dwellers. Viable financial access points through the use of agents and cost-effective digital channels should also be provided as close as possible to potential customers.

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