# RURAL ELECTRIFICATION AND ECONOMIC DEVELOPMENT IN NIGERIA: AN ENTREPRENEURIAL DISCOURSE

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## Abstract

This study assessed the level of provision of electricity in the rural areas as a panacea towards entrepreneurial endeavors for national economic development. It should be noted that rural urban drift and poverty in Nigeria are some of those social problems that need to be tackled. Data were sourced through questionaire, in-depth interview and from published scholarly works. The findings revealed that lack of electricity affected establishment of lucrative businesses in the rural areas, thereby making it difficult for self-employment in services industries like barbing, welding work and hair-dressing, etc. The paper thus concluded that rural electrification is still at rudimentary stage in Nigeria, inspite of government repeated claimed of spending huge sum of money on rural electrification. This is indeed a huge setback on entrepreneurial activities in the rural areas. The study therefore recommends that the three tiers of government should make provision for electricity in the rural areas as a matter of uncompromised priority.

**Keywords**: Economic, Electrification, Entrepreneurial, Rural

# ÉLECTRIFICATION RURALE ET DÉVELOPPEMENT ÉCONOMIQUE AU NIGÉRIA: UN DISCOURS ENTREPRENEURIAL

## Abstrait

Cette étude a évalué le niveau de fourniture d'électricité dans les zones rurales en tant que panacée pour les entreprises du développement économique national. Il convient de noter que la dérive des zones rurales et la pauvreté au Nigéria font partie des problèmes sociaux

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auxquels il faut s'attaquer. Les données proviennent de questionnaires, d'entretiens approfondis et d'ouvrages scientifiques publiés. Les conclusions ont révélé que le manque d'électricité nuisait à la création d'entreprises lucratives dans les zones rurales, rendant ainsi difficile le travail indépendant dans les industries de services telles que le barbing, le soudage et la coiffure, etc. stade rudimentaire au Nigéria, malgré les représailles du gouvernement, a affirmé à plusieurs reprises avoir dépensé une énorme somme d'argent pour l'électrification rurale. C'est en effet un énorme revers pour les activités entrepreneuriales dans les zones rurales. L'étude recommande donc que les trois niveaux de gouvernement prévoient d'alimenter sans réserve l'électricité dans les zones rurales.

**Mots-clés**: rural, électrification, économique, entrepreneurial.

## Introduction

The problem of access to modern energy is a major development issue confronting rural communities particularly in Asia and sub-Saharan Africa (Diji, 2014). According to IEA (2009), about 456 billion people do not have access to electricity, world wide. Of this number of people, 83% live in rural areas. In sub-Saharan Africa less than 10% of rural populations have access to electricity. Entrepreneurial venture is one of the crucial panaceas towards poverty alleviation in the rural areas. It also has a positive effect on national economic development. Efficient rural electrification therefore is needed to fast track not only rural development but also national development.

The advent of technology and globalization is witnessing what Ferdinand Tonnies explained in the drift from Gemeinschaft to Gasellschaft (a situation where rural area developed and give to emergence of urban centers). Electricity is one of those modern inventions that promote such development. It is also enhancing production and distribution of goods and services. The existence of adequately and fucntionable electrification is needed in the cities as well as in the rural areas.

The usefulness of electricity for rural development can be seen in the Chiness experience. As Peng and Pan (2006) asserted, China has a long experience with rural electrification by providing access to fover 900 million people over a period of 50 years. Bhattacaryya and Ohiare (2012) opined that the self-reliance of Maoist era with an emphasis on the mobilization of local level resources for electricity supply promoted agricultural production and contributed toward rapid rural development. Chinese model of rural electrification serves as probably a model for the rest of the world especially the developing countries. Ogundipe and Apata (2013) in their study of the correlation between electricity and economic growth in Sri Lanka found a very high positive correlation of 0.993, thereby concluding that availability of electricity supports economic development.

There are strong evidences that Nigeria is highly an energy bank house harboring precious resources such as coal, lignite, natural gas, solar, crude oil, hydro, nuclear, wood fuel, geothermal, tide, biogas and biomass. In spite of all of these only coal, crude oil, natural gas and hydro are currently utilized in processed form (Ogundipe & Apata). It is hope that in Nigeria, like China, rural electrification can triggered economic boom. This study examined the possibility of replicating same-in Nigeria.

## Electrification and Nigerian economic growth

The concern for rural electrification has resurfaced in recent years with the heightened interest in infrastructure in relation to the part it can play in improving welfare and reducing poverty. Ogundipe&Apata (2013), acknowledged that electricity in Nigeria is still poor. Though Small and Medium Enterprises (SMEs) have been adjudged as the engine of economic growth but their performance is grossly dismal due to inadequate power supply. Nigeria economy is yet to appropriate the benefit of the huge investment in the sector, as electricity is still grossly inadequate for the nation's economy. Also Kraft (1978) Ghosh (2002), Shitu and Lam (2004); Narayan and Smith (2005), acknowledged the correlation of constant electricity and creation of wealth. In a separate study, Emodi and Yusuf (2015) concluded that Nigeria's access to electricity has been below economically acceptable level and has not improved in recent times due to some obstacles. Nigerians have turned to the use of private generators. Even measures such as privatization of the power sector never yielded the expected result. As Isa and Brown (2014) concluded that privatization of Power Holding Company of Nigeria PHCN is not in the best interest of Nigeria nor a viable alternative to the ailing power sector the government itself is the major contributor to the inefficiency of the power sector. World Bank (2017) categorically noted that Nigeria still needs to make much progress and policies and regulation concerning access to electricity. Despite huge investment on the following electrical establishments, there are more questions than answers on the issues concerning power crisis in Nigeria.

The current generating compnies (GENCO) in Nigeria include; Kaiji Power Plc, Shiroro Power Plc, Ughelli Power Plc, Sapele Power Plc, Afam Power Plc, Geregu Power Plc. The transmitting company is Transmission Company (TRANSCO) of Nigeria. While the distributing companies (DISCO) in Nigeria comprise of Eko electricity Distribution Co. Plc, Ikeja Electricity Distribution Co. Plc, Ibadan Elcetricity Distribution Co. Pc, Abuja Electricity Distribution Co. Plc, P/Harcourt Elect. Distribution Company Plc, Kaduna Electricity Distribution Company Plc, Kano Electricity Distribution Company Plc, Jos Electricity Distribution Company Plc and Yola Electrictity Distribution Company Plc.

**Rural electrification and the economic development in Nigeria**

The major cause of high exodus to the urban areas is the neglect of rural areas. The rural areas are characterized by high level of abject poverty, unemployment and lack of other basic facilities, including electricity, (Otto & Ukpere, 2014). Rural electrification is a global challenge for developing countries. For instance, in Nigeria, it is estimated that over 70% of the population live in the rural areas with less than 15% of them having access to electricity (Diji, 2014:21). Ajeigbe, Adeleke, Ibraheem, Olasusi and Essien (2013) observed that 45% of Nigerians have access to electricity, 10% of rural dwellers have access to electricity. Also, Usman (2013) asserted that Nigeria is the most populous black nation on earth, and despite its huge abundant natural resources, it is still one of the poorestin the world with an estimated Gross Domestic Product (GDP) per capita of $2,162 with 50 to 90% of current population of 170 million people living in rural areaslack access to electricity. Julius, Olufemi and Dihi (2014) asserted that efforts are often made to alleviate the condition of the rural dwellers but the program either ended at the reccomendation stage or claims of lack of fund. Agrawal (2009; Ukpere, 2014) posited that various rural development agencies and programmes have been initiated at one time or the other with the aim of changing the condition of living of rural dwellers. These rural development agencies and their programmes embraced all aspects of rural life such as electricity. Amadi (2015) did a research on rural households in Niger Delta and found out that 73.91% of the respondents believed that power outages to a large extent

pose a major challenge in the economic activities and well-being of rural households in the Niger Delta while 240 i.e. 26.09% of the respondents were of the opinion that power outages do not pose a major challenge to the well-being of the people. The researcher therefore conclude that power outages constitute a major challenge to the well-being of rural households in the Niger Delta as evidenced by the large percentage of respondents that answered in the affirmative to the research question.

**Rural electrification and entrepreneurship in Nigeria**

Ihugba, Odili and Njoku (2013) acknowledged that poor electric supply in Nigeria has negatively affected businesses. The outcome of the power problem has prompted entrepreneurs' power through expensive ways that have in turn increased their production costs and made their products uncompetitive due to high prices. Odoh (2005) and Ayee (2003) Lawal, (2014) acknowledged that access to infrastructures such as electricity are necessary to reduce vulnerability and poverty in the rural areas. Lawal (2014) concluded that lack of adequate affordable and reliable electicity affects effective agricultural processing, small business development and rural development. In his study, Oyesola ( n.d) revealed that, out of the basic amenities that are required for economic and social development of individuals within a community which he carried out a survey on, the respondents rated the poor nature of electricity as (92%). Amad (2015) found that household in Niger Delta Region are surferring from the worst energy crisis in its history, resulting in its rural communities being subjected to massive power outages daily, which hampers economic well-being and makes social life unworthwhile the reverse of which would have made youths less disposed to violent crimes.

Amadi (2015) listed the effect of lack of adequate rural electrification on the rural dwellers to include killing entrepreneurial endeavours and other economic activities. Though his study was on rural households in Niger Delta region in Nigeria, it can be generalized given its quantitative nature. Importation of generators is a consequence of failure to generate sufficient electricity and the resort to self- help by entrepreneurs including rural dwellers. According to a research conducted by Consistence Energy Limited (2017) Nigeria imported 70million generators in last few years. Similarly, the African Progress Panel reported in 2015 that Africa's demand for imported generators had created a fast-growing market for companies in China, France and the United Kingdom. Also according to the *Worldstopexport*, Nigeria importers spent a total of $243.6m on electricity generators and converters. Global Data in Diesel and Gas Generator 2012 report, described Nigeria as the largest market for generators in Africa. This upsurge is even worse in rural areas. According to a research reported analysed by Ravi Bhandari (2012) the upsuged in generator importation was due to unreliable and limited access to power supply, especially in rural areas.

**Current Challenges to rural electrification in Nigeria**

Out of the estimated 16.4 million rural household in Nigeria, only 4.6million are connected to the electricity grid (Femi, 2017).The country has lost more megawatts in the privatization era due to corruption, impunity, vandalization of gas pipelines and other acts of restiveness in the resource-bearing communities, among other challenges, (Socio-economic Rights and accountability Project; SERAP, 2017). The challenges include corruption and lack of Political will, slow growth in generation capacity, electrical equipment vandalisation, poor maintenance of existing power system, data inadequacy, lack of staff with good public relation.

**Methodology**

Qustionaire and in-depth interview were the major sources of data collection. The study took place at Alingani, a rural settlement in Lafia LGA with an estimated 2500 inhabitants. Majority of the inhabitan Alingani are farmers. A sample size of 400 was drawn using the Taro Yamane method of sample size determination. Questinonnaires were administered on designated household heads using random sampling techniques. In order to complement data generated from the questionnaires, the community leaders were interviewed.

**Results**

The results are summarized in figure 1, 2, 3 and 3. The findings also revealed that 100% of those that acknowledged that they have generators said their generators capacity cannot power welding machine. But 100% of the respondents who said they have generator acknowledged that theirs can power sewing and barbing machine. Chart 2 showed that 83.3% agreed that their generators cannot power hair dresssing machine due to the low capacity of the power geenrating unit, while only 16.7% agreed that theirs can take hairdressing mahine.

Fig. 4 shows a pie chart illustration of the number of respondents who believed that the provision of electricity can boost their entrepreneurial activities. The pie chart revealed that those that agreed that their entrepreneurial activities will progress if provided with electricity were 98.75% (n= 395), while 1.25% (n=5) said they don't know if the provision of electricity can boost their entrepreneurial activities. The empirical study was augmented with an in-depth interview thus:

> Government has abandoned us here, despite our population and economic potential in boosting the national economic development. Despite several promises by the politicians to provide us with electricity, we have no option than to depend on the few costly generators which only few can afford (A 57 year's old village chief).

When asked on whether the provision of electricity will boost their entrepreneurial ventures in Alingani, A 25 year's old woman responded thus:

> Why not! If we are provided with electricity, all our businesses will be improved. And we can contribute immensely towards developing the national economy.

A 54 years old woman reacted that:

> Imagine, here in Alingani we are at least three thousand (2500). We go to the neighboring electrified distant communities for welding, hairdressing, etc. if we are provided with reliable electricity I think our economy will be boosted.

**Figure 1**

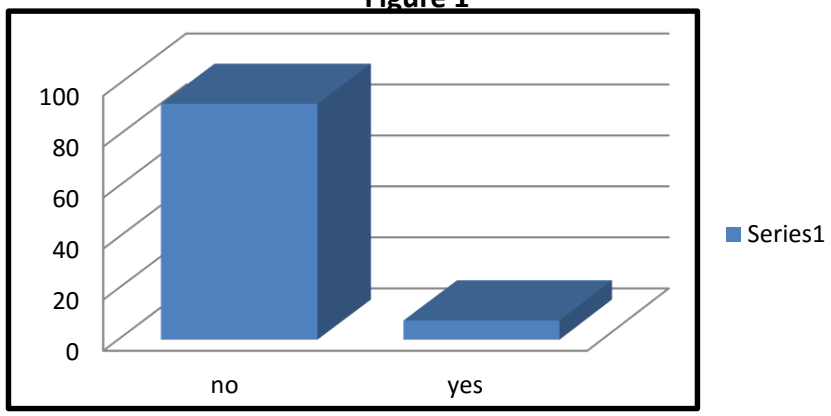



**Figure 2**

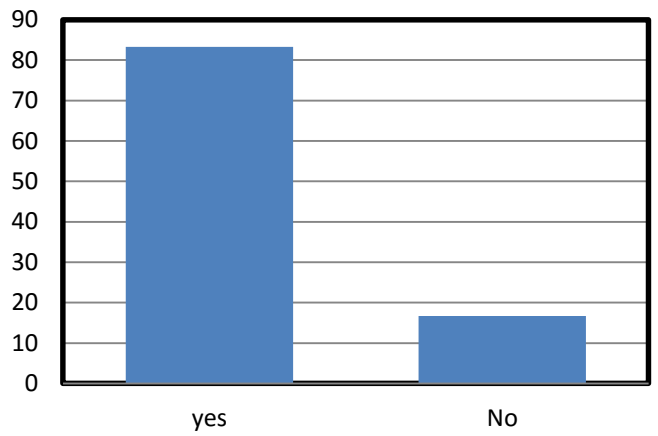



**Figure 3**

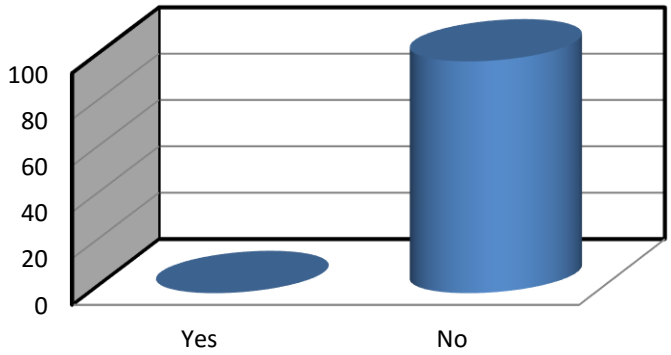
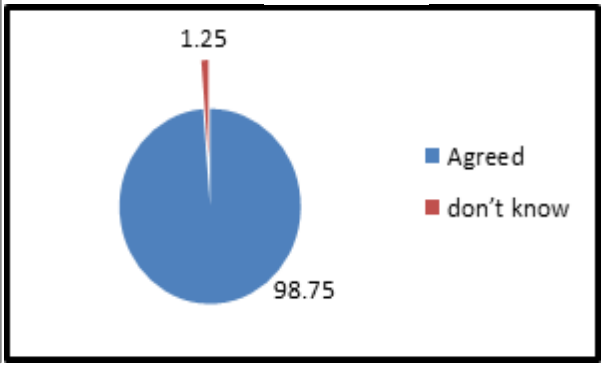



Figure 4



## Discussion of findings

Evidence from this study is that rural electrification is important for entrpreneural development in rural Nigeria. The lack of electrification is therefore hampering entrepreneurial endeavors of rural people, and by extension exerts negative effect on the Nigeria's economic development. This is inspite of the existence of several transmission and distribution power companies. The result of this study revealed that the whole of Alingani is not electrified. The inhabitants depend solely on personal generators, which only few can afford. It is clear that the trending importation of private generators is doing more harm than good to the already crippling Nigeria's economy.

Even where electricity is provided in the rural areas, they are mostly those situated on the Nigerian highways that connect the major cities. Since privatization of the power sector, affordable and the reliable electricity has became a problem in many rural areas lucky to be provided with electricity. One of the major effects is continuous demand for private generators which boosts the business of importation of generators, thereby creating jobs for the producers (mostly in Asia) of these generators in Japan and elsewhere in the world. This boosts their economy and other entrepreneurial ventures at the expense of Nigeria.

## Conclusion

There is no doubt, one of the major challenges that stunts rural entrepreneurial growth and sustainability is lack of or reliable and affordable electricity. If this is objectively addressed, it has the tendency of helping rural Nigerians in their quest for entrepreneurial development. This study has revealed that people pass through hardship in order to access electricity for some crucial services like haircut, welding and grinding.

## Recommendations

**a)** Rural electrification should be specifically included in the annual national, states and Local government budgets. There should be strict supervision and periodic reports on the state of the projects and the facilities.

**b)** The power sector should be owned by the Federal Republic of Nigeria not the private agencies. There should be strict, effective, sustained staffing and management of the sector. If the private agencies can manage the sector (as it is now), why can't the Federal Government?

**c)** Nigerian youths should be provided with sound education and sustainable jobs regardless of their region, ethnicities, religion or social class so as to quench youth unemployment and poverty that trigger vandalization of Gas and petroleum pipelines and electrical facilities.

**d)** Importation of generators should be stopped. When government stops the importation of generators, those affluent officials or businessmen who could have help in mending the problems of power sector, but have their giant automatic generators may have no option than to work tirelessly to fix the power sector problem.

**e)** There should be low financial charges for rural electric power users. This can be achieved if the reccommendation number two (b) above is implemented.

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