

Diaspora Remittances, Renewable Energy and Enterprise Growth in Nigeria

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Abstract

While sizeable research have been carried out on the role of diaspora remittances on economic growth and other social-economic factors, not many studies have linked diaspora remittances and entrepreneurship development. Even studies that have linked diaspora remittances and entrepreneurship development excluded the role of renewable energy investment. This is in spite of the argument that renewable energy is major channel by which entrepreneurship activities can lead to job creation as a result of increase in demand in the a competitive market. This study examined the impact of diaspora remittances and renewable energy investment while allowing for change in enterprise growth in Nigeria from 1990 to 2020. The study reported three main findings. Firstly, diaspora remittances have positive relationship with enterprise growth but lack significance in all forms. Secondly, renewable energy has positive relationship with enterprise growth but lost its significance at all levels. Again, the marginal impact of diaspora remittances on enterprise growth is not increasing with the level of renewable energy development adopted. This implies that diaspora remittances have not contributed to improved enterprise growth in Nigeria because the phenomenon is not expended on renewable energy development.

Keywords: diaspora remittance, renewable energy, enterprise growth, nigeria

JEL classification: F24, M24, M59, Q24

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Introduction

Diaspora remittances have been an important source of income to several developing countries in the last decades. The figure to Low and Middle Income (LMICs) which was US\$343 billion in 2010 rapidly grew to US\$526 billion in 2018. In 2019, diaspora remittances to LMICs became larger than foreign direct investment (FDI) and became a significant event for monitoring capital flows to these economies (Kalantaryan & McMahon 2020). Totalling USD 25 billion in 2021 from USD 18 billion in 2010, the phenomenon diaspora remittances amounted to two out of three equal parts FDI to Nigeria. Recently, remittances has grown more than double the amount of ODA (USD 10 billion in 2021) and its reliability as source of external finance and foreign exchange earnings can never

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be over emphasized (World Bank 2021). Recorded remittances to Nigeria have been relatively stable without the tendencies to erode receivers' competitiveness internationally and with the unrecorded accounting nothing less than 45-65% of the recorded flows (World Bank 2021).

The voluminous and stability of remittances has attracted researchers and policymakers attention especially owing to the argument that it is a source of economic growth, consumption smoothing and poverty reduction in the recipient countries (Ratha 2013, Chowdhury 2016, Bangake & Eggoh 2020). Cross countries evidence generally found that remittances have reduced the share of poor people in the population (Adam & Page, 2005).

While Chami et al (2003), Zuniga (2011) Okoduwa & Ewetan (2015) and Tung (2018) observed that remittances may not augment domestic investment since they are mostly used for self-consumption and results in moral hazards and exchange rate appreciation, Ratha (2003), Ramirez and Sharma (2008) and Vaaler (2011) for instance argued that continuous and significant inflow of remittances can lead to increase in economic growth. Vaaler (2011) for instance argued that the role of remittances may majorly depend on their use, and can augment individual income especially used for a new venture capital. This idea is premised on the argument that the phenomenon could be a critical means through which origin countries attract financial vehicle for business purposes and for the diaspora to achieve their ultimate objective of contributing to the growth of countries (Ahlstrom & Bruton 2006, Sambira 2013). A number of scholars (Reynolds *et al* 2005, Van Stel *et al* 2005, Vaaler 2011) have concluded that examining the role of remittances and other socioeconomic factors without linking entrepreneurial activities might results in risky policy implication especially in an economy fraught with high unemployment problem.

Given that the role of remittances depends on their use, it can directly raise energy usage by spending remittance funds on enterprise investment in an effort to improve living conditions (Anupam et al 2020). Remittances can increase expenditure on energy investment that can stimulate businesses, increase profitability, reduce poverty and increase growth in the country of origin (Chowdhury 2016).

Capacity to invest on renewable energy though remittances income has been argued to be a fundamental factor that can determine the decision to migrate (van Hear et al. 2012). The adoption of renewable energy by enterprises could reduce the energy consumption cost, leading to increased profitability. Pachauri et al (2013) observed that high standard of living is critical to high per capita energy

consumption and access to renewable energy services and clean fuel and technology for production and cooking which is key to welfare improvement.

Given that reliable energy has been proven to greatly improve income and quality of life, renewable energy is the ideal investment vehicle for remittances as it forms the foundation for the modern development that many developing countries strive towards. Energy is a key enabler which unlocks a myriad of nascent commercial opportunities. Remittances already have an impact on energy consumption, albeit marginal. Remittances can therefore supplement personal income which can increase renewable energy consumption directly through the expenditure in an effort to improve entrepreneurship development. Thus, understanding the link between diaspora remittances and renewable energy consumption and entrepreneurship development is very crucial especially now that financial institutions' do not give long-term loans to small-scale businesses because they are regarded extremely exposed to high credit risk incidents has resulted in SMEs failing owing to funding issues (Umar & Ifeyinwa 2020).

The World Bank Enterprise survey (2014) revealed that 33.1% and 48.2% of enterprises in Nigeria identified access to finance and electricity as their major constraints to growth respectively with 58.8% resorting to the use of generator as alternate energy supply. Furthermore 52.2% of enterprises were financed internally. The survey also showed that 15.6% losses were incurred by enterprises as a result of electrical outages. SMEDAN and National Bureau of Statistics (2019) puts the total number of medium MSMEs in the Nigeria at 45 million. This implies that more than 50% of these resorts to the use of generators to resolve the epileptic power outages they face as well as sourcing for finance outside bank credits and loans from other financial institutions.

With 17.6 billion in 2021, Nigeria, has a substantial diaspora around the world and is by far the largest beneficiary of remittances in Africa (Adegoke 2020). As a result of globalization, emerging economies are becoming more interconnected in terms of international finance, products and services trade, labor, innovation, and technology. This trend necessitates that all firms take proactive measures to find chances for growth, job creation, and prosperity, and to take inventive actions to achieve these goals. Concerns regarding the impact of reducing non-renewable energy usage and switching to more renewable forms of energy for economic growth have grown in response to growing global concern about the environmental sustainability of energy production and consumption (Anupam et al 2020). Nigeria has a lot of renewable energy potential, but it isn't being used to its full potential.

Understanding the link between remittances, renewable energy consumption and enterprise investment is important since, GIZNigeria (2015) reported that not less than 83% of the entire business owner interviewed agreed that power outage constitute the greatest threat to profitability. Against this background, the purpose of this research is to evaluate the role of diaspora remittances and renewable energy investment on enterprise growth in Nigeria. Following this background, the rest of the article is structured as follows: the next section deals with the review of empirical literature; the third section provides methodology and model specifications; and the fourth section provides a discussion on estimation results. Finally, fifth section concludes the article with some suggestions for the policymakers.

Empirical Review of the Literature

One leading factors that is receiving considerable attention is the role of diaspora remittances in the growth process. Researchers and policy makers hold divergent opinions regarding the importance of the phenomenon on the growth of recipient countries. Ratha (2013) for instance argued that remittances have growth effects and could lead to welfare enhancement through consumption smoothing and investment in the countries of origin. Other studies that showed how money sent back home reduce poverty level are (Adams & Page 2005), make available financial vehicle for recipient for business purposes (Ojapinwa & Bashorun 2014, Inoue & Hamori 2016, Issifu (2018, Bolarinwa & Akinbobola 2021). The work of Aggarwal et al. (2011), (Adams & Cuecuecha 2013) Chowdhury (2016) and Bolarinwa & Akinbobola (2021) agreed that diaspora remittances contributes to the economy of the countries of origin through savings and financial system development. Using ordinary least square model, Yasmeen et al. (2011) investigation found that income sent from abroad have significantly contributed to consumption smoothing and private investment in Pakistan. Ubi & Mabel (2018) based on Autoregressive Distributed Lag (ARDL) arrived at the same conclusion with that of Yasmeen et al., although in the case of Nigeria. Focusing on Kenya Jena (2017) examined the role of remittances on physical investment purchases. His result is not different from those that found a positive and significant effect on domestic physical investment. Udah (2011) concluded that remittances has immesely contributed to the share of durable goods like education and health and construction. Kausar et al (2011) explored the role of remittances on private domestic investment in Pakistan and found a similar outcome with that of Issifu (2018) who found that remittances are critical private investment financing of the people left behind in five selected SSA. Although Okoduwa & Ewetan (2015) reported that remittances spending constitutes a negligible portion for human investment outcomes.

Meanwhile, Vaaler (2011) argued that unbiased understanding of the relationship between remittances and investment was conditional on the entrepreneurial activities dispensation of the countries/regions in question. Vaaler (2011) posited that relating remittances directly with domestic investment may subsume employment effects of entrepreneurship developments. This might have risky implication from the policy front especially in a high unemployment environment like In Nigeria where many people consider migration as a panacea to economic problems. For example, the study of Idehen & Akhator (2021) examined diaspora remittances and the development of small and medium enterprises (SMEs) in Benin-City Nigeria. The study revealed that migrant remittances have a positive and significant impact on the development of small and medium enterprises in Nigeria. The result is similar to that of Bolarinwa and Akinbobola (2021) that found bidirectional causality between remittances and entrepreneurship among four African most developed financial sectors. Thus, concluded that remittances have spurred financial development and vice versa.

Dustman and Kirkchamp (2002) found that the savings of the returning migrants may be an important promising financial vehicle for start-up capital for small businesses in Turkey. The authors concluded that about 50% of Turkish emigrants returning from Germany started a small business within four years of resettling in Turkey. Mesnard and Ravallion (2006) recorded fundamental relationship between return migrations to Tunisia and entry into self-business. Their result is not different form that of Ilahi and Jafarey (1999) who concluded that diaspora remittance has contributed significantly to Pakistan start-up business financing. Vaaler (2011) is of the view that diaspora remittances significantly contributes to venture capital in the country of origin. Although his empirical study concluded that the phenomenon is significant to financing new business start-up only when the public sector of the country of origin is very small and higher state taxation do not crowd out private investments.

Meanwhile, studies like Akçay and Demirtaş (2015), Makanza (2021), Das et al (2021) argued that remittances impact on enterprises investment is conditional on how the phenomenon is expended on renewable energy in the recipient's country. Makanza (2021) recently whether remittances would positively contribute to economic growth depends on whether the phenomenon is used on renewable energy investment for business purpose. Specifically, Makanza (2021) examined the effect of remittances on energy consumption based on panel cointegration and dynamic causality analysis for South Asian countries. The author found that 1% increase in remittances resulted in a 0.045% increase in renewable energy consumption in the long run. Similarly, Das et al (2021) supported the argument that when remittances are expended on renewable energy development it

facilitates investment growth. They author found a unique relationship between the variables employed and concluded that there is bidirectional causality between remittances per capita and renewable energy consumption in Bangladesh. In Morocco, Akçay and Demirtaş (2015) reported that diaspora remittances only contributed to economic growth and industrial growth when used for energy consumption. World Bank (2015) found that diaspora remittances are mostly used to settle energy services debt but sometimes failed because of the problems faced by migrants in the country of destination.

According to the International Fund for Agriculture Development (IFAD) (2009), the money from the emigrants are often used to access clean-energy technology in the remote area of Ecuador. EcoBazar is a product of diaspora remittances is a marketing medium for solar water heater in Spain, Bolivia and Ecuador (Nomadic Development Fund 2015). Meanwhile, Mexico's 3 by 1 programmes for diaspora is encouraging direct spending on energy in local development, including renewable energy investments. In Haiti, a pilot scheme to target remittances from the Haitian diaspora to finance solar lanterns and solar home systems reached 30,000 beneficiaries in 2013. The project focused on the country's marginalised and energy poor homes, enabling them to displace dirtier fuels (e.g. diesel, candles and kerosene) and reduce household air pollution (Mendelson 2013, Fomin and ArcFinance 2014). Mendelson (2013) submitted that remittances finance several renewable energy projects that have evidently contributed to domestic investment in Haiti. Mahmud (2016 and Sadeque et al (2014) reported that the increase in the demand for solar home system associated with improved entrepreneurship activities were largely as a result of the money that emigrant sent back home

From the foregoing, it is difficult to be conclusive on the relationship between remittances and economic growth, investment and other macroeconomic variables without linking entrepreneurship activities. Again very scanty or no literature can also be found particularly in case of Nigeria despite the fact that it receives the highest volume of remittances with low level of renewable energy investment and high level of unemployment. The conclusion of earlier studies without linking renewable energy and entrepreneurship might have risky implication from the policy front especially in a high unemployment environment like In Nigeria where many people consider migration as a panacea to economic problems.

Methodology

This study applies fully modified ordinary least square (FMOLS) to analyse the role of diaspora remittances and renewable energy on enterprise growth in Nigeria. This is because the commonly employed estimators – SOLS estimator is easily responsive to the existence of data that are outside the standard of the regression of interest. More so, SOLS estimator has an asymptotic distribution

that is generally non-Gaussian and also exhibit non- scalar nuisance parameters. The equation estimated particularly follows the work of Idehen & Akhator (2021) and Issifu (2018) which are extended neoclassical growth model. We augment their equations to include initial enterprise growth, the interactive version of diaspora remittances and renewable energy as presented thus:

$$\begin{aligned} Led_t = & \alpha_0 + \alpha_1 Led_{t-1} + \alpha_2 GDPgrowth_t + \alpha_3 Inflation_t + \alpha_4 Lea_t \\ & + \alpha_5 LDCPS_t + \alpha_6 LEPC_t + \alpha_7 LGFCF_t + \alpha_8 LIR_t + \\ & + \alpha_9 RQ_t + \alpha_{10} LRE_t + \alpha_{11} LWR_t + \varepsilon_t \end{aligned} \quad 1$$

where Led represents, log of enterprise growth, Led_{t-1} is that lagged entrepreneurship growth. Subscript t represent time period, LWR represents log of diaspora remittances, LRE represents log of renewable energy, GDP growth represents gross domestic growth rate and IR represents interest rate. The study used electricity access to population to gauge the state of general infrastructure, regulatory quality to determine the quality of business environment.

Since we are interested in modelling the relationship between the role of diaspora remittances on entrepreneurship growth through renewable energy investment, this study is therefore based on the theoretical suggestion that increasing diaspora remittances if expended on renewable energy may be one important channel through which remittances can have more propounding effect on entrepreneurship growth. The parametric remittances – entrepreneurship growth regression model of interest is:

$$\begin{aligned} Led_t = & \alpha_0 + \alpha_1 Led_{t-1} + \alpha_2 GDPgrowth_t + \alpha_3 Inflation_t + \alpha_4 Lea_t \\ & + \alpha_5 LDCPS_t + \alpha_6 LEPC_t + \alpha_7 LGFCF_t + \alpha_8 LIR_t + \\ & + \alpha_9 RQ_t + \alpha_{10} LRE_t + \alpha_{11} LWR_t + \alpha_{12} L(WR \square RE)_t + \varepsilon_t \end{aligned} \quad 2$$

One can use FMOLS method to obtain estimates of $f(WR \square RE)_t$ and $\xi(\hat{u}_t)$ say $\hat{f}(WR \square RE)_t$ and $\hat{\xi}(u_t)$. It is of course $\hat{f}(WR \square RE)_t$ the estimated function that we are interested in, since it captures the marginal effects of the remittances/renewable energy variable clean of any outlier. Remittances do not only support immediate family but it equally extends to investments (Idehen & Akhator 2021), (Osili 2004), (Isil & Berrak 2021). SMEs have invested a substantial percentage of their funds in alternative sources of energy (solar energy, geothermal, wind energy, biomass, power generating sets and other dirty fuels etc. (Anaba & Olusanya 2021), (Apfel & Carsten 2021). (see table 3.1 for the definition, measurement and sources of variables employed).

Data, Measurement and Sources

In this study, we use annual data over the period 1990–2020. Diaspora remittances are measured in 2010 constant US dollar. The sources of the variables employed and measurement are presented in table 1 below.

Table 1. Definition of Variables, Measurement and Sources

VARIABLE	MEASUREMENT	SOURCE
Enterprise Growth	Self-employed, total % of employment	International Labour Organization
Diaspora Remittances	Remittance inflow in millions of dollars is used to measure Diaspora remittance	World Bank Development Indicators
Renewable Energy	Renewable Energy generation is used to measure Renewable energy.	International Energy Agency
GDP growth	GDP growth (annual %)	World Development Indicator
Interest rate	Interest rate is used to measure access to finance	World Development Indicator
Gross Fixed Capital Formation	Gross Fixed Capital Formation (% of GDP)	World Bank Development Indicator
Domestic credit to private sector	Domestic credit to private sector by bank (% of GDP)	World Bank Development Indicator
Electric power consumption	Electricity power consumption (kWh per capita)	World Bank Development Indicator
Access to electricity	Access to electricity (% of population)	World Development Indicator
Broad money	Broad money (% GDP)	World Bank Development Indicator
Inflation	Consumer prices index (annual %)	World Bank Development Indicator
Regulatory Quality	This measures the ability of government to formulate and implement sound policies and regulations that promote private sector development.	World Development Indicator

Sources: Authors

Results and Discussions

Hansen Parameter Instability Co-integration test-

Table 2 presents the results of the co-integration instability test. The test statistic value of 2.7345 with 0.01 probability is presented in the first column and supports the argument that the series employed in the model are stable cointegrated for inference purpose.

Table 2. The Test - Hansen Parameter Co-integration Instability Test

Series: LED LED(-1) GDPGROWTH INFLATION LAE LDCPS LEPC LGFCF				
LLIR LRE RQ				
Null Hypothesis: Series are co-integrated				
Co-integration equation deterministic: LED LED(-1) GDPGROWTH				
INFLATION LAE LDCPS LEPC LGFCF LLIR LRE RQ				
	Stochastic	Deterministic	Excluded	
Lc statistic	Trends (m)	Trends (k)	Trends (p2)	
2.734469	10	0	0	
			Prob.*	
			< 0.01	

Source: Authors

The next three columns describe the trends that determine the asymptotic distribution. The result has 10 stochastic regressor, no deterministic trend in the co-integrating equation, and no additional trends in the regressors equations. The number of trends and p-value do not account for user specific in the regression. It can be concluded that from the last column that the Hansen test does not reject the null hypothesis which says that the series are related uniquely at all levels.

Discussion of Empirical Results

Table 3 shows the result of the impact of diaspora remittances on and renewable energy (RE) on enterprise growth in Nigeria. The FMOLS regression results pass a battery of diagnostic and sensitivity tests.

Table 3. Empirical results on the impact of diaspora remittances and renewable energy (RE) on enterprise growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LED (-1)	0.955858	0.012806	74.63904	0.0000
GDPGROWTH	-0.000566	0.000109	-5.173303	0.0001
INFLATION	-0.000297	4.13E-05	-7.181080	0.0000
LAE	0.008266	0.006017	1.373780	0.1897
LDCPS	3.359374	0.461854	7.273664	0.0000
LBMG	0.001267	0.000540	2.345571	0.0332
LEPC	0.036637	0.006124	5.982390	0.0000
LGFCF	0.012079	0.004159	2.904101	0.0109
LWR	0.011159	0.013752	0.811418	0.4171
LRE	0.010617	0.012371	0.858163	0.3908
LWRRE	-0.000623	0.000127	-4.891777	0.0002
RQ	0.014097	0.003764	3.744685	0.0020
R-squared	0.972143	Mean dependent Variance		4.418371
Adjusted R-squared	0.951714	S.D dependent Var		0.017105
S. Error of regression	0.003759	Sum square resid		0.000212
Long-run variance	2.50E-06			

The R-square value of 0.9721 implied that 97 per cent total variation in enterprise growth in the dependent variable was explained by the variation in the explanatory model. The adjusted R-squared of 0.9517 supported the success of the regression

in predicting the values of the dependent variable within the sample. As expected, initial enterprise growth as a measure of past realisation of enterprise growth has positive and significant impact on its current levels at all levels of significance as indicated by their probability values of 0.0000 and 74.639 t-statistics. This is a very interesting result as it implies that more improvement in enterprise growth may continue to generate more enterprise growth in Nigeria.

Oddly, the growth rate of GDP has a negative and significant effect on of enterprise growth. Assuming a causal relationship, a 10% point decrease in the growth rate of GDP suggests around a -0.00056% point decrease in the enterprise growth. This implies that improvement in GDP would improve enterprise growth on average. This is one of the reasons government should keep putting appropriate policies in place to expanding growth appropriately. This is in line with the neoclassical proposition that declining in economic growth leads to creative activities in developing countries. The relationship between general price level (inflation) and enterprise growth is negative and significant on average.

While the coefficient for the credit to private sector is 3.35 at 1% level of significance, that of money growth is 0.0013, but at 5% level. The results show that enterprise growth is very responsive to improvement in financial development in Nigeria. The results indicate that the degree of financial sophistication and quality is a predictor of enterprise growth in Nigeria on average. The result is in line with the recent argument of Dutta & Meierrieks (2021) that developed financial significantly contributes to cheap credit for entrepreneurship financing. The findings are in line with the entrepreneurship-enhancing embraced by Vaaler (2011) and the empirical works of Klapper et. al. (2004) and Balamoune et. al. (2011). The result is also in line with the GEM (2000) report that about 80% of entrepreneurs mark financial resources as their main impediment in the way of entrepreneurship start-up. The results are however less consistent with the conclusion of Oluitan & Hakeem (2013) that financial intermediation is overemphasized in the growth of entrepreneurship process. As expected, increase in energy per capita consumption leads to positive and significant effects on enterprise growth. A 10% increase in energy per capita consumption will increase enterprise growth by 0.037%. As expected, the coefficient of GFCF as a measure of domestic investment remains positive and significant. Specifically, 10% increase in domestic investment increases enterprise growth by enterprise growth model. One innovative aspects of this paper is the inclusion of innovations as measured by regulatory quality. Expectedly, improvement in regulatory quality has positive and significant effects on enterprise growth. This implies that government involvement in regulating economic

activities encourages creative business opportunities which may boost entrepreneurship capacity to access new market.

Renewable energy has positive relationship with enterprise growth but lost its significance at all levels. This implies that renewable energy is not a direct predictor of enterprise growth in Nigeria. This supports Bulut & Muratoglu (2018) who found no causal relationship between renewable energy, diaspora remittance and enterprise growth in turkey. This is contrary to the Swiss Agency for Development and corporation (2018) submission that diaspora remittances significantly contributed to delivering renewable energy technologies in many countries. Meanwhile, Chen et al (2020) concluded that the relationship between renewable energy and diaspora remittance could be non-linear.

Diaspora remittances have positive relationship with enterprise growth but lost its significance at all levels. This implies that increasing diaspora remittances do not influence enterprise growth in Nigeria. The insignificance relationship may be as a result of the high level of unemployment and risky business environment in the country. This supports Khoury & Tong (2021) argument that harsh business environment, inappropriate local policies may discourage the use of remittances to start business. Inappropriate local policy adoptions, high level of corruption, lack of government effectiveness and political instability must have also have played a key role in the lack of significance. These findings are also consistent with the work of (Chalise, 2014) showed that economies with high unemployment and sub-employment problems tended to experience increasing brain drain and encouragement to work abroad instead of investing remittances for starting local business. Unproductive use of diaspora remittances and unabated migration might lead to increasing unemployment as a result of remittances trap (Dhungel, 2010). The result supports the argument that poorer countries like Nigeria would always fail to benefit from entrepreneurial activity even after the rise in income level of people because of poor and harsh business environment. This indicates that diaspora remittances are not a strong base for future economy simply because of harsh business environment and inappropriate local policies which would lead to remittances less contribution to increase in entrepreneurial activities. While reviewing the results of previous studies around the world, there is positive relationship between remittances and the income level and entrepreneur. But this study does not support the past results of the study.

The result is in contrast with that of Okoduwa & Ewetan, (2015) in an examination of remittance expenditure pattern and human development outcomes, which found that negligible portions of diaspora remittances were actually committed to investment purposes in SSA.

The interactive coefficient of diaspora remittances and renewable energy reveal negative relationship but lacks significance effects on enterprise growth in the country. These findings suggest that the marginal impact of diaspora remittances on enterprise growth is not increasing with the level of renewable energy development adopted. In other words, diaspora remittances have not contributed to improved enterprise growth in Nigeria because the phenomenon is not expended on renewable energy development.

Conclusion and policy recommendations

Diaspora remittances have greatly increased during recent years, becoming a significant source of income for many developing. In addition to their increasing size, the stability and counter-cyclical of these flows make them an important and reliable source of funds for countries of origin. Despite these characteristics and the argument in the literature that the use of remittances for productive use can be critical, empirical literature on the relationship between diaspora remittances and renewable energy and enterprise growth in Nigeria is scarce. This study augments the existing literature by determining the role of diaspora remittances and renewable energy consumption on enterprise growth in Nigeria from 1990 to 2020. This is because Nigeria is one of the largest remittances-recipient countries in Africa. At the same time, the country has also created the world's largest national of-grid electrification program using renewable energy sources. The country's success in promoting the use of renewable energy sources and simultaneously attracting diaspora remittances has made Nigeria an intriguing case study. This study employed FMOL and found that diaspora remittances have positive relationship with enterprise growth but lack significance in all forms. The study also found that renewable energy has positive relationship with enterprise growth but lost its significance at all levels. These imply that renewable energy is not a direct predictor of enterprise growth in Nigeria. The study found that the marginal impact of diaspora remittances on enterprise growth is not increasing with the level of renewable energy development adopted. The study concluded that diaspora remittances have not contributed to improved enterprise growth in Nigeria because the phenomenon is not expended on renewable energy development.

This conclusion supports the argument that productive use of remittances matters for its significant on socio-economic fundamentals. It can be argued that at least in the short-run remittances and renewable energy consumption reinforce each other. To our view, these results are of policy importance. Additionally, it implies that remittances can create a demand for renewable energy consumption that can boost entrepreneurship activities in this country. Leveraging on remittances is of great importance at a time where diaspora are beginning to re-think remittances in

their current form and as the private sector and governments look to build more effective economic bridges between the diaspora and their home countries.

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