SUSTAINABLE DEVELOPMENT IN NIGERIA: A CONCEPTUAL APPROACH

ADEMOKOYA, Alade Ayodeji (Ph.D.)[1]
(corresponding author)
DEPARTMENT OF ACCOUNTING AND FINANCE, KWARA STATE UNIVERSITY, MALETE, P.M.B. 1530, ILORIN, NIGERIA
Phone: +2348034452151
E-mail: alade.ademokoya@kwasu.edu.ng

ABDUL RAHIM RIDZUAN (Ph.D.)[2]
ECONOMICS UNIT, FACULTY OF BUSINESS AND MANAGEMENT, UNIVERSITI TEKNOLOGI MARA, ALOR GAJAH CAMPUS, KM26, JALAN LENDU, 78000 ALOR GAJAH, MELAKA, MALAYSIA
Phone: +60162325105
E-mail: rahim670@staf.uitm.edu.my

SAKARIYAU, Rilwan Ola. [3]
DEPARTMENT OF FINANCE, UNIVERSITY OF ILORIN, P.M.B. 1515, ILORIN, KWARA STATE, NIGERIA
Phone: +2347039295417
E-mail: sakariyau.or@unilorin.edu.ng

Abstract

Nigeria among other 193 countries endorsed the United Nations General Assembly (UNGA) pact for sustainable development in 2015, with a desire to be among sustainably developed nations by year 2030. This implies a rapid development in the three main pillars of sustainable development: sustainable economic development, sustainable social development, and sustainable environmental development. However, it is unclear if Nigeria will achieve these targets by 2030 as problems still exist in the three main pillars of sustainable development in Nigeria. Particularly, Nigeria's growth rates have failed to keep pace with those of the developed nations over the past forty years; there has been increased level of poverty coupled with wide income gap; and increase in environmental pollution in Nigeria. This study therefore, conceptually examines sustainable development in Nigeria and concludes that for Nigeria to be among sustainably developed nations, as targeted, it must maintain a balance, and experience a rapid development in the three core dimensions of sustainability.

1. Introduction

A nation is said to be sustainably developed when the needs of its present and future generations are met; and such nations must experience a balanced and rapid development in three main areas: its economy, income distribution and environmental quality. These are known as the main pillars of sustainable development. The World Conference on Environment and Development (WCED 1987) defined sustainable development as "the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. According to Ekins and Medhurst (2006), the 'development' aspect of sustainable development implies meeting human needs and increasing quality of life; while the 'sustainability' aspect means being able to maintain this into the future.

Nigeria cannot afford to fold her hands among her peers in the global scene and therefore, aims to be sustainably developed by year 2030. Particularly, Nigeria was among the 193 nations that signed the United Nations General Assembly (UNGA) treaty for sustainable development in September 2015, which implies that it is desirous of achieving rapid development in the three main pillars of sustainable development: sustainable economic development (higher adjusted net savings), sustainable social development (reduction in income inequality), and sustainable environmental development (environmental safety for all Nigerians). The outcome document of UNGA outlined 17 sustainable development goals with 169 targets. According to Ban Ki-Moon, the then United Nations Secretary-General: "it is an agenda for people, to end poverty in all its forms-an agenda for the planet, our common home" (United Nations Development Programme (UNDP), 2015).

However, achieving the sustainable development goals by year 2030 in Nigeria seems like a mirage as problems still exist in the three main pillars of sustainable development in Nigeria as evidenced in its economic growth; poverty and extreme levels of income gap among Nigerians; and, various environmental abuses, pollution, and environmental degradation (Aigbokan, 2000; Ogbeide and Agu, 2015; and World Bank, 2017). The Sustainable Development Goals (SDG) performance index in 2019 ranked Nigeria 159th out of 162 countries with many other African countries outperforming Nigeria. For example, Algeria, Tunisia, Egypt, Gabon, and Ghana were ranked 53rd, 63rd, 92nd, 99th, and 104th respectively out of 162 countries surveyed (Stiftung, 2019). This worrisome state of Nigeria's performance therefore, calls for urgent attention from all stakeholders in order to achieve its sustainable development goals by year 2030 as targeted. This therefore, serves as a rationale for this study.

2.0 LITERATURE REVIEW

This section considers the relevant concepts, underpinning theories, and empirical studies on sustainable development.

2.1 Concept of Sustainable Economic Development

The first pillar of sustainable development is sustainable economic development widely proxy in literature as economic growth. It represents an increase in the production of goods and services, and is measured as real gross domestic product per capita. The real gross domestic product per capita is a basic economic growth indicator and it measures the level and extent of the total economic output.

reflects changes in total production of goods and services, and serves as a summary indicator of economic growth but does not account for the social and environmental cost of production and consumption (Claessens and Perotti, 2007; and Ridzuan, Ismail, and Hamat, 2017). However, a better measure to sustainable economic development has been advanced to replace real growth rate of GDP (economic growth). This measure is known as the adjusted net savings which indicates how sustainable a country's policies are and measures the true rate of gross savings in an economy after considering investments in human capital, depletion of resources, and damage caused by pollution. It is the real measure of countries sustainable economic development (World Bank, 2002; Fereira and Vincent, 2005; World Bank, 2006; and Dosmaganbet 2010).

2.2 *Concept of Sustainable Social Development*

The second pillar of sustainable development is sustainable social development which usually proxies as income distribution in the literature and represents social dimension. Income distribution is measured as Gini coefficient and this indicator shows the extent of inequality in income distribution within a country. The Gini index value ranges from 0 to 100, where 0 represents perfect equality and 100 perfect inequalities. The higher the Gini value, the higher the income inequality (OECD, 2005; Teodorescu, 2012; and Ridzuan, *et al.*, 2017).

2.3 *Concept of Sustainable Environmental Development*

Sustainable environmental development is the third pillar of sustainable development, and a there is no sustainable development without environmental safety. It is widely proxy with carbon emission and represents environmental degradation and pollution. Carbon emission has been argued to be a major cause of more than 60% of greenhouse effect in the world. It is measured as carbon emission in metric tons per capita (OECD, 2005; Ozturk and Acaravci, 2012; and Ridzuan *et. al.*, 2017).

2.4 Theoretical Review

This section presents the Theory of Intergenerational Altruism (TIA) and the Endogenous Growth Theory as underpinning theories to sustainable development. These theories are discussed below:

Theory of Intergenerational Altruism (TIA)

This theory originates from a French philosopher, Auguste Comte in 1852. The theory focuses on the total well-being of both the present and the future generations and therefore, considers the future consequences of current decisions. Bernheim, Shleifer and Summer (1985) argue that issues of intergenerational equity is central to economic decisions, as it bequests from present to later generations. Barro (1974) posits that the theory acts as a fundamental transmission mechanism in macroeconomic analysis. According to Galperti and Strulovici (2017), TIA incorporates full utility (rather than mere consumption utility) of the present and all future generations. Ray (1987) argues that many models exist on intergenerational altruism but they all lack altruism towards the future generations except the TIA. The TIA also weighs the current economic and environmental consequences on future generations (Stern, 2007). It connects the social mobility and economic quality of both present and later generations (Becker and Tomes, 1979). TIA has also been argued to

focus on the well-being of all future generations without jeopardising the interest on the present generation (Saez-Marti and Weibull, 2005; and Fels and Zeckhauser, 2008).

Connecting this theory to this study, Intergenerational Altruism is seen in the perspective of sustainable development in which the needs and quality of life (total well-being) of both the present and future generations are protected.

This theory was also adopted by Phelan (2006); Farhi and Werning (2007); Pearce (2008); Schneider, Traegner and Winkler (2012); and Galperti and Strulovici (2017), among others.

Endogenous Growth Theory

The Endogenous Growth Theory otherwise known as the New Growth Theory, emerged in the 1980's from the works of Romer (1986); Lucas (1988); and Rebelo (1991), in which investment in human capital is modelled as a driving force for growth. It holds that endogenous factors and not external factors account for growth. The theory holds that growth in human capital causes spill over effects on the economy and reduces diminishing returns on capital accumulation (Mulder, Jeroen and Bergh, 2001).

In connection to sustainable development, endogenous growth leverages on innovation and diffusion of technological change under which economic growth can be sustained by the resources and the environment (Smulders, 1995). The path to sustainable growth goes back to the work of Hartwick (1977) who shows that intergenerational equity can be achieved by reinvesting the rents or proceeds of resource extraction into economic capital to maintain a constant level of consumption over time (Mulder, *et. al.*, 2001). They further argued that proceeds used for investment purposes depends on substitutability of natural capital by economic capital, referred to as "weak sustainability" as opposed to "strong sustainability" where natural capital cannot be substituted for economic capital.

Studies such as Romer (1994); Smulders (1995); Ortigueira and Santos (1997); Mulder *et. al.*, (2001); and Romer (2011) offers support for this theory.

2.5 Empirical Review

This section reviews related empirical studies on sustainable development. Available studies have individually considered the different dimensions of sustainable development ranging from economy, poverty reduction, income inequality, and environmental quality across the globe. These therefore, serve as the review area in this study.

Jalilian and Kirkpatrick (2002) investigated financial development and poverty reduction in some selected developing countries and found that financial development contributes to poverty reduction in developing nations. The study used two indicators for financial development which are bank deposit money assets over GDP and net foreign assets over GDP in line with Beck, Levine and Loayza (2000). However, the study only captured the second pillar of sustainable development-sustainable social development, which is usually proxy as poverty or income inequality.

Calderon and Liu (2003) studied the direction of causality between financial development and economic growth among 109 developing nations from 1960 to 1994. The study found that the direction of causality from financial development to economic growth; and economic growth to financial development both co-exist. The study also observed that financial deepening leads to

economic growth through productivity than capital accumulation. Although, the study was distinct itself by using the Geweke Decomposition test to test for both the degree of dependence and the linear feedback between financial development and economic growth, however, the study only focused on economic growth which is only a pillar of sustainable development and therefore, did not capture sustainable development in its entirety.

Christopoulos and Tsionas (2004) investigated financial development and economic growth in 10 developing countries from 1970 to 2000. The study revealed that a developed financial sector leads to growth. However, the study only considered a dimension of sustainable development-economic growth.

Using a trivariate vector autoregressive framework Abu-Bader and Abu-Qarn (2008) examined financial development and economic growth in Egyptian economy from 1960 to 2001. The study revealed that financial development and economic growth are mutually causal and that there is need to stimulate investments through financial reforms to bring about long term sustainable growth. However, the study only dwelled on one pillar of sustainable development which is economic growth.

Okpe and Abu (2009) studied foreign private investment and poverty reduction in Nigeria. The study observed that foreign investments and government expenditure significantly reduce poverty in Nigeria. The second pillar of sustainable development-poverty reduction- was the only focus of the study leaving out other dimensions of sustainable development.

Ogwumike and Salisu (2009) examined financial development and economic growth in Nigeria from 1975 to 2008. The study concluded that the financial sector positively and significantly affects economic growth in Nigeria. However, this study only focused on an aspect of sustainable development, which is economic growth measured as real growth rate of gross domestic product leaving out the two other major pillars of sustainable development.

Kar, Nazliogu and Agir (2010) investigated the link between financial development and economic growth in fifteen Middle East and North African (MENA) countries from 1980 to 2007. The findings revealed no clear direction of causality between financial development and economic growth and therefore, deviated from the findings of Calderon and Liu (2003) and Abu-Bader and Abu-Qarn (2008) among others. Although, the study employed better indicators of financial development, it only measured economic growth, which does not capture sustainable development in full.

Zhang (2011) studied financial development and carbon emissions in China using variance decomposition test from 1980 to 2005. The study found on overall that financial development drives carbon emissions with the banking sector variables scaling up more emissions than the stock market variables. However, the study focused only on the third pillar of sustainable development-environmental quality, and did not holistically consider sustainable development.

Solarin and Jauhari (2011) carried out a similar study as examined by Ogwumike and Salisu (2009). Although, Solarin and Jauhari (2011) concluded that the financial sector is crucial to achieving

sustainable economic development, they failed to examine this in their study. Nonetheless, the study provided useful insight to examining the financial sector and sustainable development.

Anwar, Shabir, and Hussain (2011) assessed financial sector development and sustainable economic development in Pakistan from 1973 to 2007. The study found that the financial sector positively and significantly affects the sustainable development of Pakistan in both the short and long run. Although, the study used good indicators to proxy the financial sector but however, proxy sustainable development using the ratio of external debt to export is not a good measure of sustainability. The study also failed to justify the proxy adopted for the measurement of sustainability nor was the proxy known among the indicators advanced to measure sustainable development in the literature, see World Bank (2002); Dasgupta, (2007); Drastichova, (2016); and Blum, Ducoing and Mclaughlin, (2016), Ridzuan *et. al.*.(2017), among others.

Oyedepo (2012) found that the promotion of renewable energy could lead to sustainable development in Nigeria. The study however focused on the sustainable environmental development, which is only the third pillar of sustainable development.

Adekunle, Salami and Adedipe (2013) investigated financial development and economic growth in Nigeria. The study established that the link between the financial sector development and the real sector is thin and cannot lead to the desired economic growth by the year 20:2020. However, the focus of the study was only on economic growth which does not capture sustainable development in its entirety.

Islam, Shahbaz, Ahmed and Alam (2013) examined the link between financial development and energy consumption in Malaysia. The findings revealed that financial development affects energy consumption positively and significantly. However, energy consumption as used in the study tends to support the third pillar of sustainable development excluding the two other critical pillars.

Moghadam and Lotfalipour (2014) investigated financial development and environmental quality in Iran from 1970 to 2011. Study found that financial development indicators accelerate environmental degradation in Iran. However, the study focused on environmental quality, which is only an aspect of sustainable development.

Ogunniyi and Igberi (2014) examined foreign direct investment and poverty reduction in Nigeria from 1980 to 2012. The study employed ordinary least square regression estimation technique and submits that foreign direct investment does not affect poverty reduction in Nigeria. However, the study only ascertained the second pillar of sustainable development, which is the social dimension and often represented as poverty reduction or income inequality. The study, therefore, excluded the environmental effect and economic growth and cannot be said to have investigated sustainable development to the fullest.

Dauda and Makinde (2014) investigated financial sector development and poverty reduction in Nigeria and reported that credit granted by financial intermediaries failed to reduce poverty in Nigeria. Although, the study adopted a better proxy for poverty reduction by using the ratio of the numbers of poor to total population from 1980 to 2010 as against per capita GDP used to proxy

poverty in the study of Ogunniyi and Igberi (2014), however, the study was based only on a single dimension of sustainable development omitting other two pillars.

Omole and Ozoji (2014) examined education as drivers of sustainable development in Nigeria. The study however failed to neither hinge sustainable development on its three main dimensions nor provide any metric for the measurement of sustainability in Nigeria.

Shahbaz, Loganathan, Tiwari, and Sherafatian-Jahromi (2014) assessed financial development and income inequality in Iran. The study confirms the Greenwood-Jovanovich hypothesis in the case of Iran and concludes that financial development reduces income inequality. The limitation of this study is similar to Jalilian and Kirkpatrick (2002) in that it only considered the second pillar of sustainable development alone for the Iranian economy.

Okeke, Izeueke and Nzekwe (2014) opined that energy security guarantees sustainable development in Nigeria. The study however did not indicate measures of energy security nor sustainable development. The study also, focused more on environment which is only a dimension of sustainable development.

Moldovan (2015) studied financial system and sustainable development in five developing Eastern European Countries-Bulgaria, Czech Republic, Hungary, Poland and Romania from year 2000 to 2013. Results revealed a no correlation between the financial system and sustainable development in the five countries. Although, appropriate indicators were used to capture the financial system, however the study only gave premium to environmental indicators and did not consider the three major dimensions of sustainable development.

Nwosu and Metu (2015) assessed financial development and economic growth in Nigeria and revealed that financial development only affects economic growth in the long run and not in the short run. The study however focused on economic growth which is only a pillar of sustainable development.

Bhavish, Nitisha, and Sheeren (2016) examined foreign direct investment and economic growth in the sub-saharan Africa and posit that foreign direct investment does not positively nor significantly impact on economic growth in developing nations. The study however focused only on the first pillar of sustainable development leaving out other critical pillars.

Dar and Asif (2017) investigated financial development and carbon mitigation in India from 1971 to 2013 and opined that financial development degrades the environment in India. However, the study focused only the third dimension of sustainable development-environment.

Abdul Manaf and Ibrahim (2017) assessed poverty reduction for sustainable development in Malaysia and found that poverty incidence has been reduced, and remarkable growth sustained in Malaysia through socio-cultural dimension of the Malaysian government. However the study only examined the social dimension of sustainable development.

Bongini, Iwanicz-Drozdowska, Smaga and Witkowski (2017) investigated financial development and economic growth in Central, Eastern, and South-Eastern (CESSE) countries from 1995-2014.

The study posited that the presence of foreign banks in addition to the local banks induce t intermediation needed for economic growth. The study provided useful information to the relevan of foreign banks among other indicators of financial development but however did not stu sustainable development in full.

Nwokike, Ezeabii and Jim (2017) examined business education as an indispensable tool f sustainable development in South-East Nigeria. The study concluded that business educatic curriculum which is in line with industrial skills leads to a sustainable development. However, stud did not show how sustainable development was measured nor mentioned any of its three mai dimensions.

Volz (2018) assessed green finance and sustainable development in 16 Asian Countries and posit that the financial system plays a crucial role in green transformation. The study submits that Asia countries such as Viet Nam, India, China, Mongolia, Bangladesh, and Indonesia have bee developing suitable frameworks for green finance while countries such as Laos, Nepal, Thailanc Singapore, Philippines, and Pakistan are also currently in the process. The study concluded that fo the Asian economies to succeed there is need to align their financial system with sustainabl development.

Ndubuisi-Okolo and Anekwe (2018) investigated strategies for achieving sustainable developmen in the Nigerian state and found that sustainable development can only be feasible in Nigeria if poverty is drastically reduced, effective leadership put in place, and youths empowered. However, the study did not indicate how sustainable development was measured nor did it mention the pillars on whicl sustainable development is hinged.

3. Discussion of Findings

It is evident that most available studies in Nigeria have individually focused on various dimensions of sustainable development. For example, studies of Ogwumike and Salisu (2009); Solarin and Jauhari (2011); Adekunle, Salami and Adedipe (2013); Nwosu and Metu (2015); and Chude and Chude (2016); Adeniran, Oduntan and Mathew (2017); and Okpara, Onoh, Ogbonna, Iheanacho, and Iheukwumere (2018) all considered the first dimension of sustainable development-economic growth. On the other hand, studies that concentrated on the second pillar- income distribution and poverty reduction in Nigeria include: Muritala and Fasanya (2013); Dauda and Makinde (2014); Yinusa and Alimi (2015); Dabwor and Abimiku (2016); and Gangas (2017). Studies on the third dimension of sustainable development-environmental stewardship include the studies of Adeagbo (2013); Ogboru and Anga (2015); Oyebanji, Adeniyi, Khobai, and Roux (2017); and Orekan and Eluyele (2018) among several others. This study however, posits that none of these available studies holistically focused on the three main pillars of sustainable development: economic, social and environmental stewardship in Nigeria and therefore cannot be said to have toed a complete path of a sustainable Nigeria based on the views of scholars.

4. CONCLUSION

This study concludes that in order to achieve sustainable development in Nigeria by 2030 as targeted, there is need for the government and all stakeholders to work towards driving the Nigerian economy on a sustainable growth path, mitigate poverty, improve income distribution, and ensure a safe environment for Nigerians.

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