

## Human Development and Technological Innovations: Veritable Tools for Sustainable National Development – A Moral Perspective

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### Abstract

The aim of this paper is to elaborate on the significance of human development and Technological innovations to National Development. The paper holds that science and technology are the focal point of this 21<sup>st</sup> century as they contribute in no small measure to the economic growth of a nation. It must be stated that development and progress require human resources to succeed. In recognition of the pivotal role played by man in national development, Socrates shifted the focus of philosophy from matter, the physical world to man and the development of the society. Human development is the substructure upon which a nation's development is built and strengthened. The first step to development as emphasized by the philosophers is moral development of its citizenry. Ethics is the normative branch of philosophy that instils ethical values for moral development. The findings of the study showed that the purpose of technology is to alleviate man's needs and problems. Man is therefore the centre of technology and hence the moral development of man is the development of a nation. It concludes that the synergy between human development and technological innovations begets national development. The philosophical tools of conceptual clarifications and critical analysis are employed.

**Keywords:** Philosophy, Ethics, Human Development, Technological Innovations and Sustainable Development.

### Introduction

Development is the process of change to improve the quality of people's life. It is an attempt to give people better healthcare, education, roads, security etc. which is critical to the growth of any nation. Developed nations provide all these and more for its citizens, while developing nations are still struggling to meet the basic needs of its people. There are different forms of development namely Human development, National development, Animal development, development of concepts to mention but a few. The focus of this paper is on National development which incorporates human or individual development. It emphasizes that Nation building is an integral part of a nation's life. The paper also holds that Human development or individual development as it is sometimes called is anchored on education. Education is the bedrock of national development as developed people, develop a nation. Advanced countries place a high premium on education and use it as a tool to launch into the world of science and technology.

Education is a crucial element for development that transforms an individual and even nations to bring about an improved life. It is the bedrock upon which societies are built. This hydra-headed instrument has the potential to reduce poverty and provide employment which contribute to the growth of a nation. Ban-Ki (2012) states that "Education is the basic building block of every society and a pathway out of poverty". In 1990, Nelson Mandela addressing people in Madison Park High School, Boston said "Education is the most powerful weapon which you can use to change the world". (<https://www.oxfordreference.com>). Furthermore, The National Policy on Education of the Federal Republic of Nigeria (FRN, 2004:4) puts it thus "Education in Nigeria is an instrument per excellence for affecting national development". Hence, Human development through education is a key to national development. Education is therefore an investment to a better future of an individual in particular and nation in general.

Like education, philosophy aims at moulding and training an individual's mind to be reasonable and logical. This is a common thread philosophy shares with education. Both disciplines attempt to liberate the human person from the shackles of ignorance as Aristotle (1941:250) says "All men by nature desire to know". Philosophy is a reflective activity that is concerned about man and his world. This reflective nature of man begins in wonder. Omoregbe (2007:4) states that "Human experience is thus the source of the reflective activity known as philosophy. This experience could either be man's own experience of himself (subjectivity) or his experience of the world around him (objectivity). Hence philosophy could start from subjectivity or objectivity." The central theme for both Education and Philosophy is man and the development of society. National development is therefore not possible without Intellectual development.

The 21<sup>st</sup> century is an age of technology and technology is rooted in two Greek words *techne* meaning "art" (from the Latin *ars*) and *Logos* meaning "word" or "speech" when combined form "technology", meaning a systematic study of principles in the achievement of a rational end. In defining Technology, Ogbujah (2020:50) says "It is the application of scientific knowledge for practical use, whether in industry or in our everyday lives." This age is also called the information age. It is the age where technical skills are most needed for the development of an individual and nation.

The objective of this paper is to showcase the significance of human development to national development and the place of philosophy in sustaining nation building. It emphasizes that moral education in collaboration with technological innovations can meet demands of the present day realities. It also holds that sustainable nation building can take place with sound ethical values that would impact the mindset and conduct of individuals. This is the goal of moral philosophy. This paper recognizes that the 21<sup>st</sup> century is an age where the world has been transformed into a global community due to the instrumentality of innovative technologies.

### Clarifications of Concepts

To give appropriate focus to this paper, it is necessary to first of all clarify the key concepts used. These concepts are Philosophy, Ethics, Human Development, Technological Innovations and National Development.

#### Philosophy

The term "Philosophy" is an academic and parental discipline. Etymologically, Philosophy is derived from two Greek words, *Philos* which means love and *Sophia* which means wisdom. Hence it means the "Love of wisdom". Philosophers are lovers of wisdom. This discipline does not have a univocal definition as its practitioners provide definitions in line with their varied areas of specialization. It is pertinent to note that philosophy is the oldest academic discipline and this earned it the title of "Mother of all disciplines". It is divided into five branches namely: Ethics, Epistemology, Logic, Metaphysics and Aesthetics with each branch focusing on different aspects of human development. Eboh (2011:12) defines Philosophy as a "critical reflection".

#### Ethics

Ethics also known as Moral Philosophy is a branch of Philosophy that is concerned with the rightness and wrongness of human actions. Ethics is derived from a Greek word *ethos* which means custom, habit or character. It is concerned with the norms of human behaviour. Oke and Esikot (2005:2) state that "The concept of "morality" properly understood has to do with the rightness of behaviour or actions of individuals, class, group, the society at large".

#### Human Development

Human development is an aspect of development that has great impact on national development as it affects economic growth. It refers to the lifelong process of growth that individuals experience from birth until the end of their lives. Human development is pivotal to National development as it forms the foundation upon which a nation's advancement is built.

#### Technological Innovations

Technological innovations refers to the development and application of new or enhanced technologies that bring about significant changes in diverse fields. This involves the initiation of novel ideas, methods, processes or even products that improve efficiency and enhance human capabilities. Examples of technological innovations in this 21<sup>st</sup> century include: Artificial Intelligence, Robot Assistants, Cloud Computing, Crypto currency, Cyber Security and Big Data.

#### National Development

The term National development refers to the human or spiritual development and material development of a nation's citizenry. It involves the layout for improving the economic, social and political well-being of a nation. Udoidem (1992: 1024) in defining National

Development says "National Development in this context means a gradual process of unfolding for the better or growth of nation; type of growth that affects the nation as a whole or a development process that is patriotic or nationalistic."

## **Philosophy as a Tool for Sustainable Development in Nigeria**

The term "Philosophy" is an academic and parental discipline that has no univocal definition accepted by all philosophers. Each philosopher defines it in line with their varied perception of reality. According to Nwala (1997:7);

No one definition is sufficient to express the meaning of philosophy. This is because its meaning has varied over the course of its history. Moreover, different philosophers have different views on what philosophy is, its subject matter and method. It is not surprising that those who engage in philosophical inquiry do not agree as to the essence of the activity because by its nature, this is bound to be so.

Philosophy is the beginning and end of all intellectual activity which earned it the title of "Mother of Disciplines". It is the oldest academic discipline. Eboh (2011: 14) goes further to state that Philosophy is primarily concerned with everything that is [being]. Being is, therefore, the subject matter or the material object of philosophy, while the formal object, the aspect of everything which it investigates, is the first causes/highest principles or the ultimate intelligibility of all the "knowables". Etymologically, philosophy is derived from two Greek words, *philos* (love) and *Sophia* (wisdom). Philosophy is therefore the "love of wisdom". It is a rational and critical discipline that seeks to know the truth about everything with the aim of proffering solutions to them. Philosophy trains one on how to think and analyze issues critically. As Omoregbe (2007: 3) puts it; "Philosophy is a rational search for answers to the questions that arise in the mind when we reflect on human experience". Philosophy as a parental discipline is divided into five branches namely; Logic, Metaphysics, Epistemology, Ethics and Aesthetics. Each branch deals with a specific aspect of development that affects mankind. They are as follows:

- (a) Logic is the study of the methods and technique used to distinguish good from bad reasoning.
- (b) Metaphysics is responsible for the study of the universe and existence.
- (c) Epistemology deals with every aspect of human knowledge.
- (d) Ethics is concerned with the moral aspect of man.
- (e) Aesthetics is interested in the beauty of arts.

In the 6<sup>th</sup> century B.C., the Socratic philosophers changed the focus of the world from what constitutes the primal element to man and the development of society. The task of philosophers henceforth became that of human development. At this juncture, we shall define the term "development". In defining development, Udoidem (1992:1024) elaborately states that "The word development has its roots from the French word "Volper", meaning to wrap. To develop thus means to "dewrap" or to unfold gradually, to cause to grow gradually fuller, larger, stronger and better. Development therefore is a

process or a state of being developed.” In giving a wholistic and detailed perspective of development, Iroegbu(1994:81) says

Development is the progressive unfolding of the inner potentialities of a given reality. It is to de-envelop, that is, to bring out to light: the existential, functional, and epistemic; what was enveloped, folded or hidden. As it applies to a people, development is the integration of the various givens: natural, physical, acquired and human of a people towards the full working out, permanently and cumulatively of their being as persons, of their community, and of their real productivity.

Iroegbu (2005:290) went further to explain that Development is “both a physical reality and a state of mind in which society has secured the means for obtaining a better life. Development refers to the development of human and material resources. The concern of this paper is with the development of human resources and society which in other words is National Development. National development or nation building is a multi-dimensional concept as it encloses the economic, socio- political feature of development which involves the welfare of men and society. It seeks to improve the wellbeing of the individuals in its nation through the provision of basic amenities like basic education, affordable healthcare, security, sanitation, portable drinking water and so much more.

National Development is divided into two sections namely Human and Material Development. Human Development refers to the process of improving the physical, mental and socio-political features of man. Omoregbe (2007: 195) puts it thus, “To talk of national development is to talk primarily of development of human persons. Philosophy plays a vital role in national development in terms of human development in the society. The main object of the philosophical inquiry is the human person”. Humans are therefore the most crucial element of National development as the development of any nation is dependent on the development of the human person. Human development is the hub of all forms of development. Philosophy plays a crucial role in national development in terms of societal and human development. This it does through education. The branch of Philosophy concerned with the moral development of man in the society is Ethics.

### **The Place of Ethics in Human Development**

The development of any nation is anchored on the social nature of man. Man is a social animal who lives in a society and societies make up a nation. In every human society are acceptable moral codes that help to regulate the conducts of people and hence the need for moral education. Nwigwe (2011: 53) states:

As a social animal, man’s decisions to act in one way or the other affects not only himself, but other people also. For this reason, if social life is to be realizable, and society is to live in harmony, there must be accepted norms of action. Such commonly accepted norms of conduct form the primary basis of morality in society.

The branch of philosophy that is concerned with moral development is Moral Philosophy or Ethics as it is sometimes called. Omoregbe (2006:3) defines Ethics as “the branch of philosophy which deals with morality of human actions”. Moral philosophy is a theoretical

study of human conduct which raises questions on how one ought to behave in the society. It is one of the normative branches of Philosophy. Lacey (1976:138) defines the term as “concerning habits, customs, ways of life especially when these are assessed as good or bad, right or wrong”. Moral values are therefore requirements needed for the development of any nation. Morality is a significant aspect of human development as it determines the national growth which affects national development. The focal-point of national development is man and he or she needs to be trained on ethical virtues such as discipline, honesty, generosity, charity, integrity, loyal etc. to enhance the development of society. These virtues sum up to be develop the character of an individual. The training on ethical virtues is known as Moral Education. For Ellrod (1992: 10);

Moral education is an activity which must draw upon two theoretical studies and apply their results to action. On the one hand, the notion of morality, traditionally the province of philosophy, gives moral education its goal; a theory of moral education will obviously depend heavily on the understanding of the person and of ethics or morality it takes to be correct.

Human or individual development is a blend of physical, mental, socio-political and moral aspects of the human person. The human person is the substructure upon which any nation is built and refers to the process of improving the wellbeing of individuals, expanding their choices and enhancing their capabilities to lead fulfilling lives. Omoregbe (1990:197) in emphasizing the critical role played by the human person in national development says:

In view of the prime importance of the human person, authentic development in any nation can only mean primarily the development of the human person, and this consists mainly in the development of his mind and will. The training of the mind to see things critically and to seek the meaning and intelligibility of things is an important aspect of the development of the human person.

Nigeria is a nation blessed with abundant human and material resources which earned her the title “Giant of Africa” and the most populated black country with the current population in 2023 of two hundred and twenty-one million, three hundred and sixty-four thousand, one hundred and thirty-three (221,364,133) people, according to worldometer(worldometers.info), yet plagued with poverty, unemployment, insecurity, bad governance to mention but a few. In 2021, she became “poverty capital of the world” with 94.4 people living below the poverty line (businessday.ng). Alongside being a nation crippled by poverty, she is also known for her high level of corruption which cuts across every facet of the nation. Corruption manifests in forms as dishonesty, selfishness, fraud, embezzlement of public funds etc. Omoregbe (2006: x) elaborately asserts:

An immoral society is also a sick society. By an immoral society we mean a society permeated with corruption, dishonesty, fraud, selfishness, embezzlement of public funds and other immoral acts. Such a society is sick and cannot be in sound order. Its organs cannot function properly because they are not in sound healthy conditions. Life in such a society becomes increasingly difficult, insecure and unhappy. Something just have to be done to save the situation. Our country (Nigeria) is sick, morally sick, and it can only be

cured through a moral regeneration. Indeed, such a regeneration is imperative if the country is to make any meaningful progress in development. For the greatest obstacle to the development of our country is immorality, corruption, dishonesty, fraud, embezzlement of public funds, selfishness, etc. It is only a moral regeneration that can cure Nigeria and remove the greatest obstacle obstructing her development.

It is disheartening to note that in the midst of this excruciating poverty, a handful of Nigerians mostly the leaders are wallowing in extreme wealth derived from the country's commonwealth. Achebe (1998: 1) observes thus: "The trouble with Nigeria is simply and squarely a failure of leadership. There is nothing basically wrong with the Nigerian land or climate or water or air or anything else. The Nigerian problem is the unwillingness or inability of its leaders to rise to the responsibility, to the challenge of personal example which are the hallmarks of true leadership."

There is an urgent need for moral cleansing to foster national development. Schweitzer (1961: 76) states that "The prosperity of a society depends on the moral disposition of its members". This is the crucial role played by moral development as it provides a framework for understanding the values that guides a nation. Omoregbe (2007: 197) endorses this position. He says: ...moral development is the most important aspect of national development, for there can be no development of a country if its citizens are morally undeveloped and immature. Moral development on the part of the citizens is therefore a condition-sine-qua-non for the development of any nation. It must precede the economic development through modern technology. Neither science nor technology can develop a country if its citizens are not morally developed.

Moral development is therefore the crux of development. It instils in one ethical values of life which are required in a morally bankrupt society. All other forms of development depend on it. For without moral development, there cannot be national development.

### **The relevance of Technological innovations to Sustainable Development**

The relevance of science and technology in the development of a nation cannot be overelaborated as no nation can develop without science and technology. Science and Technology have a symbiotic relationship, where science detects a problem and technology provides the precision instruments to solve that problem. They can liken to two sides of the same coin. Science is derived from the Latin word *Scientia* which means knowledge. It is a branch of knowledge that is concerned with observations and experiments. Akaneme (2004:92) defined Technology as "the application of scientific knowledge and research, with the aim of developing products or processes for the use of man". Technology comes from the Greek word *techne* which means art. Art here refers to the craft or expert skill deployed in conscious production of something as against "things" or "equipment" found in nature. Technology entails the ability to use specific scientific knowledge to manufacture things for practical purposes or applications. Science and technology are tools used to measure the rate of development and underdevelopment of any nation. In describing this relationship, Ihuah (2012 :117) elaborately asserts:



Science and Technology are two modes of human activity that are organized around interaction with nature. Such interaction is neither random nor causal, but conscious and goal oriented, which character derives from the need to understand nature in its diverse structures and pattern of working. But, even within these two modes of human activity, there exists a symbiotic relationship; science provides information to technology, and technology in turn provides science with ingenious precision instruments, which extend the scope of human sources of knowledge and also provides avenues for practical utilization of scientific theories.

Science and technology in the 21<sup>st</sup> century have created new discoveries that impacted the world by solving problems, improved and quality of life. This has made life easier, more comfortable and better. In other words, these discoveries and advancements have developed the society with technological innovations that include: Artificial Intelligence, Cloud computing, Cryptocurrency, Robot Assistants, Cyber security and Big Data. These advancement in technological developments has made the world a global village with cross-cultural concepts and communication. Developed nations are technologically advanced and rely on the brainpower of their citizens to create wealth through the instrumentality of science and technology. While developing and underdeveloped countries tend to rely on their natural resources for development. Natural resources refer to assets drawn from nature. As Supoto (2015) reveals,

Most of African wealth comes from oil, agriculture, and other mineral resources, but this wealth will not continue to pump without innovations. The 21<sup>st</sup> century economic success is largely independent of natural resources, but on ideas marketable to other countries. The world technological powers have little or no oil. They do not care about its future exploitation in their territory, but because they are optimistic oil-exporting country cannot do without them, they continue to develop in technology. Countries with worthwhile technology will definitely have precedence over those who do not.

One of the most developed countries in the world is Japan. It is a country without natural resources and was able to sustain economic growth through investing on their human capital. The emphasis is on developing the human capital to liberate any economy and also sustain national development. Nigeria is blessed with abundant natural resources which include oil, natural gas, lead, zinc, limestone, coal, tin, iron ore to mention but a few. In 1956, oil was discovered in Olobiri, Bayelsa State and she became an oil producing country in 1958. The economy henceforth depends on the production and exportation of oil and it generates 90% of government revenue. (nnpcgroup.com>oilgasinnigeria>indus...). The country experienced economic recession in 2016 when there was a global free fall of oil prices and this led to scarcity of foreign exchange (forex) which caused untold hardship on its citizens. There is therefore the need for technological innovations for sustainable national development. Ben (183: 2012) puts it thus, "All developed nations have been seen as technologically advanced; thus, all developing nations of the world are striving to attain the status of the developed world through technological innovations."



Technology plays a crucial role in improving the quality of life and also enhances national development through the transformation of the society which leads to economic growth. The technological age is known as the age of knowledge, where socio-economic development of a nation resides with people who possess the prerequisite innovative skills such as digital skills, collaborative skills, problem solving skills, communicative skills, amongst others. The relevance of technology can be seen as there is a remarkable increase in information and communication technologies (ICTs) so much so that nations are seeking new technologies that would make their activities more efficient, cost-saving and effective to expedite development. These digital skills are referred to as 21<sup>st</sup> Century tools. This age has great impact on every aspect of human life and has created new opportunities for individuals and nations. Technology therefore plays a crucial role in wealth creation and the economic growth of any nation which would in turn alleviate poverty.

### Conclusion

Development is said to be a predictor that determines whether a country is progressing or not. In other words, it labels countries as developed, undeveloped and underdeveloped. Unegbe (2002:101) states "Hence, Development can be defined as a process of unfolding, evolving, or maturing that entails a movement from a lesser stage to a greater one. Therefore, to develop is, in some cases to increase in dimension, to mature, and in some others, to come out full and perhaps complete."

Human Development is exceedingly pertinent to National development as it is the substructure upon which a nation's progress is built. It contributes in no small measure towards the economic growth and poverty eradication of a nation. Technological innovations are requirements for the building, growth and future development of any nation. Technological innovations contribute to the economic growth of any nation as it aids efficient utilization of natural resources and offers employment. This paper emphasizes that the synergy of Moral development and technology are required for national development. As Mango (2010:10) puts it "The most important aspect of the development of any country is indisputably the development of human personality." In other words, the moral development of citizens of a nation results in nation building and the much awaited prescription for sustainable national development. The paper states that investing in human development is crucial for national development, as it contributes to higher incomes and better living standards.

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