

## **THE ROLE OF RESEARCH IN DEVELOPING COUNTRIES: A CASE OF NIGERIA**

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### **Abstract**

It is not an overstatement to say that the level of development witnessed in the world today: especially in developing countries is a product of research. In fact, the author is of the opinion that research is 'synonymous' to development as it leads to advancement in all facets of life such as education, health, governance, agriculture, infrastructure, building, commerce and industry, transportation, banking and finance, information technology, engineering, security to mention but a few. This paper takes a look at the role of research in development. It is aimed at promoting research in developing countries of the world. A philosophical approach is adopted while gathering data from a pool of literature, personal observation of major trends in Nigeria. The paper examines the level of development in key area of life; as well as highlighting those challenges facing research development using Nigeria as a reference point. Recommendations are made in the paper that could promote research development in young countries of the world. The paper concludes that without thorough research activities, stagnation in national development and human existence is endangered. **(Word count: 174)**

**Keywords:** Research, National development, Developing countries, Stagnation.

### **Introduction**

Man in his quest for survival has always searched and perhaps will continue to search for better and easier ways of doing things and seeking answers to puzzling questions concerning his existence. All these are geared towards making life more meaningful, progressive and impactful in a world faced with numerous challenges. To the economists, human needs are insatiable; hence, the need for man to continuously expand his

knowledge about the world he lives in. This motivates him to seek to discover new ways of solving his problems; new ways of doing things; more knowledge about things around him; so as to improve his well-being. Research therefore, is a means of discovering new and factual knowledge; systematic process of providing satisfactory answers to puzzling questions (Ogunjimi, 2001); a means of arriving at dependable solutions to problems through planned and systematic collection, analysis and interpretation of data (Soji & Udida, 2012). According to Egonwa (2012), it is a systematic problem solving habit or systematic fact-finding procedure.

Going by the many activities of man in the course of his day to day functioning; all in an attempt to make life more meaningful can be described as research. In the same vein, development can be defined as advancement in living standard, expansion of knowledge and provision of things necessary for better well-being of man in the society he lives in; living standard as it concerns education, health, agriculture, governance, banking and finance, security, infrastructural facilities, transportation, building and engineering, commerce and industry, crime control as well as information technology in the modern sense among others.

### **The Role of Research in Development**

It is not an overstatement or exaggerated fact to say that the level of development witnessed in the world today; especially in developing countries (Nigerian inclusive) is a product of research. In fact the author is of the opinion that research is 'synonymous' to development as it leads to advancement in all facets of life. Various governments in developing have always strive to improve the condition of the citizens of the country by providing social amenities. Hence, a lot of money is spent annually on research development as a way of seeking better ways of doing things and dealing with pertinent issues concerning man's existence in this ever-changing world. Various developmental projects and programmes are embarked upon by succeeding governments to make life more meaningful and purposeful for the citizens. No wonder why developing countries like Nigeria still find new ways of dealing with numerous challenges on her way to a developed status. Generally, the role of research can be succinctly put as:

- Finding solutions to identified problems in various sectors of national development.

- Developing new ways of doing things in terms of materials, methods and styles.
- Testing of equipment and newly developed information and findings.
- Assessment of performance in terms of research and development (R&D).
- Data analyses to produce reliable results that can lead to generalizations and practical application.

It will be crucial at this point to examine and assess the role of research in development of key areas of life with reference to Nigeria Role of Research in Education

Education is vital for human development; it is a potent tool for personal and national development. It has been regarded as "the greatest power man has developed either for his continued progress or eventual reconstruction" (Ukeje, 1991). Education is any process by which an individual gains knowledge, insight or develops attitudes or skills; such processes include training, drilling, brainstorming, indoctrinating or teaching. The federal government of Nigeria had adopted education as an instrument "par excellence" for effective national development. If education is adopted as the only tool that can solve the socio-economic problems of Nigerians; then, there is a better justification for spending so much money on education. The above statements point to the importance of education in developing countries as well as the need for nations of the world to provide qualitative education for their citizens.

Succeeding governments in Nigeria have come up with different educational programmes tailored towards imparting the right values; all in an attempt to make them imbibe the right culture and values that will make Nigerians contribute to national development. Examples of such programmes include establishment of free and compulsory primary education, nomadic education, junior secondary education; which is mandatory in some states of the federation: senior secondary education, Colleges of Education, Polytechnics and Universities. The following institutions are listed to give the required professional training for teachers to prepare them for the task of training; Colleges of Education; Faculties of Education (in the Universities); Institutes of Education; National Teachers'

Institute (NTI); Schools of Education in the Polytechnics; National Institute for Nigerian Languages (NINLAN); National Mathematical Centre (NMC); National Open University of Nigeria (NOUN) and the introduction of about thirty-nine trade subjects into the curriculum of secondary schools to encourage students at self-reliance and deal with issue of unemployment after graduation. Many efforts have been made towards improving the curriculum of these institutions.

Innovations and changes are introduced from time to time according to the needs of the society. Governments in the past and present have also made a few attempts to recruit teachers and lecturers to teach in these teacher preparatory schools. The role of National Education Research Development Council (NERDC) cannot be overemphasized here. Its efforts at reviewing curriculum of schools to meet with the demand of the 21st century, introduction of course books, syllabi, instructional materials, injection of new methods of teaching and delivery of subject matter in the classroom; purchase and installation of state of the art gadgets in schools to make Nigerian students comparable to their counterparts in developed countries of the world is highly commended. Our classrooms are becoming more interactive online lectures are possible, educational data can be produced, stored and retrieved easily, examinations are conducted to a large number of students within a short time and the results are processed and produced in a more accurate and faster manner. Today, on-line and virtual classes, meetings, discourse and conferences can be held through Skype and other technological means.

If we take a critical look at the situation in our schools and the products now in the country, can we now say that all the above efforts have been fruitful? Can we say education in Nigeria is patterned at providing all-round individuals capable of turning the society around for good? The researcher's assessment shall be an average mark; this is due to the fact that all efforts towards development are confronted with unhealthy government policies, poor infrastructural facilities, lack of commitment by teachers and lecturers, poor government funding among others.

### **Research in Health Development**

Medical research in Nigeria can be traced to 1920 when the Rockefeller Foundation established the Yellow Fever Commission and by 1925, the Virus Research Institute was established to service the Commission. In

1954 the various medical research units in different parts of Anglophone West Africa were brought together under the West African Council for Medical Research (The Rockefeller Foundation Annual Report, 925). The report recounts the evolution of mechanisms in the country, from the time of independence until the present, that are responsible for management of science in general and health research in particular. The bodies mentioned above include the Nigerian Council for Science and Technology (NCST, established in 1970), the National Science and Technology Development Agency (NSTDA, established in 1977) and The Nigerian Institute for Medical Research (NIMR, established in 1977). Provision of timely information aimed at combating possible health menace among many other things is an important function of public health. Hence, inadequate tracking techniques in the public health sector can lead to huge health insecurity and hence endanger national security, etc.

Today it is possible to track outbreaks of diseases and step up medical treatment and preventive measures even before it spreads over a large populace. A good example of this can be seen in the early discovery and control of yellow fever, meningitis, cholera and few maternal diseases recorded in some state of the country in the past few years. Medical and epidemiological surveillance, adequate health care delivery is essential functions of public health agencies whose mandate is to protect the public from major health threats.

The primary health care system is managed by the 774 local government areas (LGAs), with support from their respective state ministries of health as well as private medical practitioners. The primary health care has its sublevel at the village, district, and LGA. The secondary health care system is managed by the ministry of health at the state level. Patients at this level are often referred from the primary health care. The state primary health care comprises laboratory and diagnostic services, rehabilitation, etc. The tertiary primary healthcare is provided by teaching hospitals and specialist hospitals. At this level, the federal government also works with voluntary and non-governmental organizations, as well as private practitioners to provide health care services to teeming population of the nation. The nation has been able to deal with and contain several cases of epidemic and diseases such as Ebola: Cholera, Small pox, Chicken pox, Measles and the like.

## **Research and Development in Agriculture**

Research is a critical enabler to economic growth and development with its relevance cutting across the policy process. Its role cannot be over emphasized especially as a developing nation with a rapidly increasing population where agriculture plays a vital role in the economy, not only because it employs about 70% of her total population but also due to its position as the bedrock of the economy, more importantly, its resources are needed for agro-industries to run. Agriculture employs nearly three-quarter of Nigeria's work force (World Bank, 1998). Agriculture is the principal source of food and livelihood in Nigeria. This implies that agricultural production must be seen as the critical component of every program that seeks to reduce poverty and attain food security in Nigeria. This is also the reason why there must be interest in agricultural productivity trends in Nigeria since income growth comes from productivity growth and savings; the latter enables more investment, hence higher output (Phillip et al, 2008). Therefore, it is not surprising why present administration in Nigeria has taken agriculture as a serious business, judging from numerous campaigns geared towards food production and hunger eradication. The roles of the Nigerian agricultural sector include provision of food for the growing population, foreign exchange earnings, employing part of the labour force as well as providing income for the farming households. It has also been discovered that agricultural wastes can be recycled to produce products like manure and fertilizers that can enhance agricultural production. Furthermore, alternative source of energy owing to the non-utilization of agro wastes and over dependence on hydro-power and gas for power generation is expedient. This is possible as related research reveals that abundant animal wastes generated can be converted to useful products which represents a strategically vital step away from reliance on fossil fuels whilst contributing to the development of a sustainable energy supply and enhanced energy security in the long-term which can be integrated to formulate policies aimed at encouraging alternative energy source and economic diversification. Through research in agriculture, high-yielding crops, vegetables and animals are discovered to meet with the ever-increasing population of the country. Discovery and production of herbicides, pesticides, fertilizers and modern storage facilities are made possible. This has made farming a bit easier, encouraging and productive to farmers.

### **Research and Development in Governance and Electioneering**

In this era of democracy, transition from one government to the other is through election, the importance of research cannot be over emphasized. Recent elections conducted in Nigeria are characterized by complaints of alleged rigging, multiple registrations and voting as well as ballot box snatching. Increasing number of voters in the country has made it imperative to devise means of controlling some of these challenges. We have machines that can detect multiple registrations and voting. Counting is made a lot easier and results are announced in due time compared to what it was many years back. Crime control during elections is also a thing that comes to mind. Today, there are gadgets that can detect bomb and other ammunitions which constitute threats to transparent and credible elections in the country. Governance is made easier as dissemination of information across the country is possible through several state of the art channels and technologies; just at the click of a button, information can be retrieved, read and stored.

### **Research and Development in Commerce, Banking and Finance**

In Nigeria today, a lot can be seen on the role of research development in the area of banking and finance. The days are gone when man carries his money all around just for the fear of theft. Also, trade by batter is a forgotten issue. It is possible to purchase an item from any part of the world and make payment without exchange of raw cash. Money can be transferred from one location or person to another without stress, though a lot still need to be done to improve on existing conditions, especially as it concerns network provision in our banking system. In places where there are no bank to draw cash like rural communities and marketplaces, ATM, POS and on-line banking facilities are being provided at strategic places to make financial transactions easier. This has provided another means of livelihood for those who engage in its operation. Furthermore, it is possible to carry out transactions on-line within and outside the country via some platforms like Ebay.com, Amazon.com, Aliexpress.com, Konga.com, Jumia.com, to mention but a few.

Few years back, the federal government through the banking system in Nigeria introduced the bank verification exercise where every account holder in the country was made to obtain a Bank Verification Number (BVN) as well as the introduction of the Single Treasury Account. This was to control movement of money across accounts and curb financial crimes

such as money laundering and looting. These are laudable achievements in banking and finance through research development.

### **Research in Infrastructural Development and other areas**

The role of research can be seen in infrastructural development such as; provision of good transportation systems, health services, electricity, potable water, postal services, building information technology, fashion design and dressing, crime control and so on. The century has witnessed tremendous growth and development in these key areas of national life; especially in Nigeria.

### **Research and the place of Women in National Development.**

If research means investigation, experimentation and facts-finding, then the days of gender discrimination are gone; especially in Nigeria as women are being tested and giving key positions in national development; especially as highlighted above, the results have been proven that women do better in almost all positions and professions hither-to for men. An assessment of performance in our schools now reveals that girls are more focused and committed to studies than boys. In governance for instance, women are now being elected into key positions of authority and their performance has been outstanding.

One cannot forget so soon the contributions of such women like Dora Akunyili; former Minister of Health, Stella Adadevoh; a medical doctor, who even paid with her life at tempting to save a soul and avoid national health disaster, Chimamanda Ngozi-Adiche who has taken African literature further into the western mainstream and became the face of British Pharmaceutical Chain Boots, Ngozi Okonjo-Iweala-two times Nigerian Finance Minister, Amina Mohammed; Nigeria's Minister of Environment leading the Sustainable Development Goals (SDGs) initiative. Bilikis Adebisi-Abiola; the brain behind the Lagos State Company 'Wecyclers'. Other women of note are; Honorable Abike Dabiri. Kemi Adeosun and several women of note who have done well in politics and governance, taking positions as deputy governors, senators, commissioners or house members at different levels of government.

It has been discovered also that even in professions assumed for men such as agriculture, driving and sports like football, women venture into it and the result is wonderful. We can then conclude that being a male or female is



not a factor when it comes to national development. Increase women participation in these key areas has brought about improved performance and reduction in male domination.

### **Challenges facing Research Development in Developing Countries**

The challenges facing research development in developing countries like Nigeria are numerous. Maduekwe (2011) notes that while some developments have been made in some functional areas of management in Nigeria; research development is rather slow. Some challenges facing institutions of research include increasing cost of materials and equipment. Struggling economies (recession), lack of personnel, lack of continuity of research findings, poor communication network, publish and perish syndrome, role of international bodies, etc. Ogunjimi (2001) added that the challenges include lack of record keeping, the business factor, attitude of government and society as well as unattractive working conditions of research personnel. It is obvious now that most state governments in the country struggle to pay salaries not to talk of spending on research development.

### **Summary, Conclusion and Recommendations**

This paper takes a look at the role of research in different aspects of life such as; agriculture, health. Banking and finance, education, security, infrastructure, electioneering and governance, and so on using Nigeria as a reference point. From the on-going, it is a clear fact that results recorded in various spheres of national development is overwhelming and the role of women in these areas cannot be overemphasized. Now in Nigeria, life is easier and more comfort is witnessed as compared to what was obtainable many years back. Hence, the role of research in developing nations cannot be over-emphasized. The paper concludes that research development should be a thing of priority and that no investment in research development is too much if a nation must move forward and fulfill its obligations to her citizens.

It is hereby recommended that: State of the art facilities must be in place for effective research activities especially, in the sciences; this will facilitate accurate results and recording.

- Researchers should be more innovative and 'think out of the box' to best use the limited resources and funds to meaningfully contribute to knowledge.
- More research centers should be established; especially in rural areas to harness the vast resources that abound in these areas.
- Funds released for research development (R&D) should be properly monitored, spent and accounted for.
- Women should be given more opportunity to contribute their quota and proof their worth in national development. This can be done through constant campaign against gender discrimination.
- More educational opportunity be provided for the training of women especially at the rural level to harness the abundance of human resources available at this level.

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