

# THE ROLE OF COMPUTERS IN NATIONAL ECONOMIC REHABILITATION AND RELIANCE

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## **Abstract**

Given the parlous state of our national economy occasioned by decades of economic recession, there is a pressing need for economic rehabilitation and reliance. In this regard, the invaluable contribution of computers in this information age cannot be overemphasized. This paper examines what computer in economic rehabilitation and reliance is all about and critically highlights the main features of the Nigerian economy. Then the operational applications of computers in various fields of endeavour were presented. The need for computers in the task of economic rehabilitation and reliance were further highlighted while the problems associated with introducing computers into organizations were discussed together with recommendations and conclusion.

## **Introduction**

In discussing the topic, it is very relevant to look at the meanings of the operative words in the topic.

Computer is a grouping related machine, which accepts data through an input device, works on that data by means of a stored program in the processing unit and gives out the result through an output unit. Computer is defined "as a device that takes input, processes it and produces output automatically, under program control"<sup>1</sup> (Ogunsote, 1995:1). It can perform both mathematical and logical operations. It was further observed that "computer can determine whether a business venture will be successful or not by analyzing various scenarios of projected income and expenses" (Ogunsote, 1995:2).

Economics is defined as "the principles of the production and distribution of goods and services and the development of wealth" (Hornby, 1995:368). While national economic rehabilitation could be taken to signify measures taken to restore the country's ailing economy to good condition" (Hornby, 1995:983 & 987).

Consequently we can conveniently analyze the topic: the role of computers in national economic rehabilitation and reliance to mean the measures taken to restore the country's ailing economy to good condition by the use of computers. Computer is very helpful in rehabilitating national economy because of its contribution to business which include decision making, increased efficiency in productivity, better quality and reliable services etc. It was observed that "computer helps to reduce operational cost, optimizes management assets, provides better information for selling and buying, among many others" (Onasoga, 1997:256).

So the target of national economic rehabilitation and reliance is to build a great, dynamic, strong and self-reliant nation.

## **The Poor State of National Economy**

The national economy particularly in the Nigerian contexts are filled with greater errors than is normally supposed. Nigeria has a slow rate of economic growth and it has lost decades of developmental strides. As a result of this, Nigerians were leaving the country in droves. As is well known, the problem of data availability, adequacy and reliability is particularly serious in our country.

Nevertheless this paper shall discuss some important causes of our ailing economy which includes the following:

1. The dominance of oil in the economy hindered our progress in economic management. We

rely greatly on oil for foreign exchange earnings and for domestic transformation activities. "This excessive reliance on crude petroleum exports, this replacement of the previous composite vector of "traditional" primary exports with single, though more lucrative, crude oil vector, does not provide secure foundations for prosecuting deliberate development policy" (Okongwu, 1986:11).

2. Enterprises both small and medium size has been stagnant in Nigeria, and it has the potential to limit the capacity to create wealth and employment. It's contributions to Gross Domestic Product and employment remained small. National Planning Commission (NPC), (2004) revealed that:

Annual per capita GDP remained stagnant in the 1990s, and it grew just 2.2 per cent between 1999 and 2003 - far lower than the 4.2 per cent per capita growth needed to significantly reduce poverty. ... The country has become so heavily indebted - external and domestic debt amount to about 70 per cent of GDP- that it has seriously difficulty servicing debt. *PI*.

3. Averagely agriculture, predominantly small farmers with low and declining productivity, formed the real sector, while crude oil and manufacturing sectors accounts for below average. So, services have been the fastest-growing sector since independence. Because of the risk and high cost involved in home business, private sectors keep the bulk of their assets abroad. Many highly educated Nigerians settled in the United States and Europe and their investment goes into oil sector.

Also, (NPC, 2004) observed that:

Most foreign direct investment into the country goes into oil and extractive sector. Only since 1999 has foreign direct investment in the non-oil sector begun to rise significantly. Nigeria's economic structure remains highly undiversified- Oil sector account for 95 percent of total exports, while manufacturing accounts for less than 1 percent (p9).

4. We eventually lost our international market share in our traditional (agricultural) exports. Nigeria has sufficient solid mineral deposits capable of providing more revenue, foreign exchange, and employment opportunities than the oil and gas sector do. Because of some constraints, which include inadequate proven deposit etc., no-reasonable development could take place,
5. All levels of government are in financial constraints. There is increase in domestic and external debt. External debt attract additional service burden annually, depending on the terms. It has caused us serious internal burdens and adjustments. " Domestic debt increased more than 200 percent between 1999 and 2002 (to about \$9 billion). The external debt, which the government is barely able to service represents about 50 percent of contractual service obligations" (NPC, 2004:9).

Nigeria is currently known for owing arrears of workers' salaries, misallocation and mismanagement of resources, pension crisis and substantial debts to government contractors etc. We have arrived at the point where currency depreciation is unjustifiably frightening with its attendant multiplier effect on the prices of goods and services.

In summary, Okongwu (1986) stated that:

We have problems with our ideas, about ourselves and the world around us, with the essential nature of our development, with our agriculture, our manufacturing

industry, electrical energy supplies, with education, health and housing, with the formation of stable expectations, unemployment, and depleted foreign exchange reserves, with unmaintainable rates of investment and consumption, instabilities arising from shocks both externally and internally generated, (p. 33).

Today, the national plan and budget have little relevance as a guide to funding and implementing development programmes.

### **Computer Applications**

In Nigeria, more business establishments, the banks, commercial houses. Government organizations, the oil companies have all adopted or are in the process of implementing office automation. French (1992) identified two main areas of application as:

Commercial applications: this covers the use of Computers for clerical, administrative and business uses, in private and public organizations, i.e. the emphasis is on data processing. Scientific.- Engineering and Research Applications: This covers the use of computers for complex calculations, the design, analysis and control of physical systems, and the analysis of experimental data or results, i.e. the emphasis is on scientific processing or industrial computing (p. 469).

There are other minor areas of computer application which do not fall into either of the two main areas, e.g. computing done as hobby. Further benefits can be obtained by integrating different applications, e.g. linking the payroll system to the labour or production -control system.

Computers have been gradually applied to many new areas of work in the late few years e.g. the use of microcomputers -based system in small firms and offices. Microcomputers are widely recognized because of its various application packages, portability and cheapness. "It is easier to operate and more user-friendly; portable and has a wide variety of application packages available for it" (Toluhi, 1997:7).

CAD/CAM (Computer Aided Design /Computer Aided Manufacture) are viewed as a natural extension to system design, which already deal with production and stock control. Onasoga (1997) recognizes that:

Computer graphics is used for product design (CAD) and the monitoring of the manufacturing process (CAM). Computer is capable of inspecting end products and testing the design for effectiveness. Tufrell (1987) said that the computer, when used for the design of the profile of a car, can also be used to calculate "its drag coefficient and performance figure" (p. 257).

### **The Need for Computer in Economic Rehabilitation and Reliance**

The use of computer in rehabilitating national economy cannot be over emphasized. It is an instrument par excellence for effective rehabilitation of national economy and reliance.

Economic rehabilitation and reliance therefore requires the prospecting of resources, an appraisal of their magnitudes and qualities through the application of computers. Any developing nation that aspires to economic rehabilitation and reliance needs computers that can adapt these industrial and agricultural processes to their circumstances.

Computer application in our economy helps in enhancing higher productivity and reduction in overhead cost, "Modern industrial machineries are heavily automated, with computerized controls, which gives the advantage of optimization of resources (both human and material)" (Onasoga, 1997:257). Computers enable us to get vital information which can help us to realize effective economic rehabilitation. Brightman (1986) stated that:

The business community has recognized the competitive edge offered by the microcomputer. Fast and easy access to information is vital to good decision making in business, and good decisions make for good business. "Time is money", they say, but today good information is money as well (p.7).

The role of computers in national economic rehabilitation and reliance cut across the production, storage and distribution of information in various forms. Brightman (1986) further highlights the advantages of computers as follows:

1. Individual managers can now make decisions by combining information developed within their companies with outside databases, including economic and industry statistics. This allows them to assemble studies of markets, competition, pricing, and forecasts in hours rather than months.
2. Electronic mail allows reports, memos and other correspondences to be transmitted simultaneously to many people within the economy as well as outside it.
3. New systems can turn reams of numbers into charts and colorful graphs. Information can thus be more quickly digested for faster action.
4. Voice store-and-forward telephone systems let users send phone messages digitally by computer to any number of recipients within the company.
5. Computerized scheduling systems make it possible to set dates for large meetings without consulting executive individually.
6. Teleconference cuts travel time and expense by enabling managers in distant spots to talk face-to-face over television linkups (Pp. 9-10).

To achieve these advantages, there is need for government and private sector to invest heavily on manpower training for the appreciation of computer.

### **Operational Problems of Computers in the Quest for National Economic Rehabilitation and Reliance**

1. Our country is not producing computers. We import them and this cost us substantial amount when we talk of foreign exchange. The extent of expansion on the computer usage will depend on the amount of foreign exchange which the country will be prepare to spend on importing of computers each year. Since the country is not producing computers (Akume, 1997:4). Obviously computers are costly to maintain because of their expensive parts.
2. Some users of computers are not programmers and not willing to be thereby lacking such technical knowledge which is essential if you are to make intelligent decisions about the applications of computers to business practices and problems.

Brightman (1986) emphasized that:

Designer of computers, for all their effort to make computers simple to use, have yet to succeed in making them as simple to use as telephone, television or Video recorder. As professionals then, you must have more than a passing acquaintance with the technology of information processing (p. 21).

3. Introduction of computers into organizations is in many cases associated with job dislocations, and in extreme cases, job loss. It was categorically stated that " It usually affects the work of staff within the organization. Some jobs are changed, some may be created and some may be lost" (Oliver, 1990:323).
4. Any slightest mistake while operating computer can cause loss of vital information." Information can be lost at the slightest mistake. If care is not taken in handling a computer, a mistake can cost you important information" (Toluhi, 1997:8).
5. Some computers cannot be move about easily once they are installed e.g. mainframe computer system for big organization which process large amount of data on regular basis. " A mainframe can occupy an entire room.... Hundreds of terminals can be connected to the

mainframe, such that many operators can work on the computer simultaneously" (Ogunsote, 1995:4).

### Recommendations

The following recommendations were made:

1. Government should encourage the development of strong linkages between industries in the science and technology parks and research.
2. Government and non-governmental organizations should ensure that the right types of computers are procured such that microcomputers and mainframe computers are appropriately applied. Thus mainframe-computers should not be acquired where only the microcomputers is required.
3. Economic rehabilitation requires constant planning and supervision which can lead to maximum output of goods and services.
4. Effort should be made to train and retrain workers to enable them learn the technical knowledge of computers and know the various computer applications.
5. The vendors should spell out all the likely problems and see that provisions are made to prevent any problem that may arise.
6. Users of computers should be very careful while handling the machine to avoid loss of information.

### Conclusion

Computer is one of the best things ever invented by man. They do quite a lot of things once the necessary instructions are programmed into it. It is reliable and capable of contributing immensely in the task of rehabilitating national economy. However, "good as computer is, it is a means to an end and not an end in itself. Like any other inventions of imperfect mortals, it has limitations. It is for instance, not a substitute for the brain" (Oni, 1996:26). We need a brain to install computer, programme information into it and carry out repairs when it becomes faulty. Ability of the machine to produce correct information depends on the appropriate usage of it.

Computer has influenced the way we live today and manage our economy. If we continue like this, our economy will evolve from a national one to an international one, "keeping track of international business transactions and monetary flow already is done largely by computer systems. The computer's ability to communicate financial data around the world almost instantaneously makes it a powerful force bringing people closer together" (Brighthman, 1986:20).

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