

Economic Meltdown: Effect on Engineering Education in Nigeria

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Abstract:

This study is an analysis of the impact of the current global economic meltdown on engineering education in Nigeria. Economic meltdown means economic recession. Engineering education is one of the surest ways for thorough capacitation and developing countries, to reduce poverty and create opportunities for our young people. One of the immediate effects of economic meltdown on organization is the inability of organization to maintain the current productive capacity owing to inadequate capital. As a result of this, many companies are either downsizing of personnel and operations or closing down. The Global economic meltdown has also impacted negatively on government's ability to meet their obligations. We have seen governments cutting expenditure and this sometimes includes expenditure on education. This in turn has adverse effect on engineering education. Since subvention, from the government is been reduced. On the long run, there will be inadequate funding, escalation of cost of importing engineering equipment, reduced funding from foreign donors, absence of loan facilities due to distress in the banking sector and inadequate training of personnel. These may lead to inadequate technical manpower, negative socio-economic effects and general loss of values. In order to avoid this unpleasant situation, institutions need alternative systems of funding?. This could come through autonomy, Introduction of innovative strategy and approaches, updating the curriculum with critical needs and available funding and good planning.

Key Words: Economic meltdown, engineering education, productive capacity, control measures, funding, equipment, foreign donors, technical manpower.

1. Introduction

Economic meltdown simply refers to economic depression. It means when the income generated is not up to expenditure. Nigeria has excess capacity for crude oil production but OPEC regulation places a limit on production. The scenario looks grim as the price of the product has suffered a dramatic decline from \$147/barrel in July, 2008 to less than \$40/barrel in January, 2009. (World Bank, 2009). The world was initially optimistic of an early recovery but recent events show that " hopes for swift end of the recession is fading" (Ederman, 2009). Also in Nigeria corruption and poor leadership has led to economic stagnation and even decline. This raises the possibility of government control measures, such as cutting down expenditure which may affect statutory allocation to the educational sector. Also it shows that a long period of recession is in place, since Nigeria depends on the Western economies.

Definitely this will have an adverse effect on engineering education since statutory allocation to institutions may cease or reduce because of the global economic meltdown. The global economic meltdown has been triggered by certain factors.

The major causes of the present incident of economic meltdown include the following:

1.1 Poor Banking Policies and Financial Imprudence:

The banking sector did not help matters as bankers connived with government officials in money laundering activities. Also, there was poor oversight and regulation of the banking sector leading to insider abuse, unprofessional conduct and brazen fraud.

1.2 Lack of Patriotism and Nationalism by Political Leaders:

Nigerian Political leaders have made governance very expensive to the detriment of the nation and they award to themselves salaries, allowances and perks of office to the political system and in favour of their own selfish interest that the economy can not sustain.

1.3. Covetousness and Greed of Political Leaders:

Most government officials loot the treasury and spend with recklessness. Between 1999 and now the EFCC claims have recovered above N4.5 billion, the bulk of this from political office holders. The numbers of present and former public office holders facing corruption charges are many.

For example former governor Lucky Igbinedion has been convicted of corruption charges and ordered to pay back what the public generally regards as a paltry amount. Also, former Governor of Bayelsa state was involved in a highly celebrated corruption charge with which his impeachment was procured. He bolted to United Kingdom only to return in disguise to face impeachment, imprisonment and was ordered to pay some money back. The former governor of Plateau state also had his day with the EFCC and had some money to refund. A number of

ex-governors notable among whom are Ayo Fayose and James Ibori continue to play hide and seek with the anti corruption agencies, leaning on weaknesses in judicial and governmental structures to subvert their trial on the grounds of corruption.

1.4 Perpetuation of Corruption in Top Administrative Sectors of the Government in Nigeria

The Civil servants also join in looting the treasury. Across the studies of the federation, in the local governments and at the federal level, there is brazen looting and conversion of public resources to private use and ownership.

2.0 Implication

This economic meltdown has great implication on the nation and this includes:

2.1 Inflation

Industries are closing down every day due to lack of necessary materials required to improve their productivity. This is due to inability of the financial institutions to facilitate adequate loans to the manufacturing sector of the economy. The implication is that the fair products that are in the market then are inadequate to meet demand. Hence when the demand is greater than the supply there is possibility of inflation (Global financial Crisis, 2008)

2.2 Banking Distress

It also leads to distress of some of the largest financial institutions. As the crisis gets deeper and the international institutions and the World Bank that have lent money to Nigerian financial Institutions need to shore up their reserves, one way could be to demand debt repayment. Also many Institutions such as industries that are producing at low level may not be able to serve accumulated huge loans obtained from the banks and since the banks could not get adequate funds to run their operations, they may collapse.

2.3 Diminished Aid

As the Credit squeeze takes hold, foreign investment in Nigeria reduced. Furthermore, foreign aid, which is important for Nigeria and a number of African countries, is likely to diminish. This crisis has shown that in an increasingly Inter- connected world, there are always knock-on effects and as a result, Nigeria has had more exposure to problems stemming from the West. (Global Financial Issues, 2008.)

2.4 Unemployment

It also creates unemployment. As a first reaction to the slow down, some corporate companies cut down on freebies for the employees (retrenchment). Companies have been consistently reducing manpower at the lower rungs and transferring more responsibilities to higher ranking officials. Generally, there is the feeling that in the Yar Adua years, the tempo of the anti-corruption war has slackened

3.0 Effect on Engineering Education

Engineering education is one of the most powerful ways for developing countries, to reduce poverty and spur opportunities for our young people (Fabunmi, 2004 & 2006) however; the economic meltdown has affected engineering education greatly.

3.1 Inadequate Funding:

Government Institutions and other stakeholder are no more funding engineering education adequately. General quality therefore may decline due to lack of funds for the maintenance of infrastructure, lack of funds to purchase laboratory equipment and to support training and development. It is perhaps axiomatic that funding problems remain the greatest burden of engineering education. The general consensus is that funding has remained grossly inadequate. (Compass, 2009)

3.2 Engineering Equipment:

The cost of importing engineering equipment has escalated as a result of the economic meltdown. This is due to increase in the exchange rate has galloped from 1:82 in 1999 to 1:150 currently. The naira purchasing power has also reduced. More also, people could not send their wards to the best schools that can impart modern skills because they could not afford it. (Soludo, CC, 2009)

3.3 Foreign Aid:

Engineering education involves research and development. In times of general economic depression, research and development suffers set back as the foreign aid is reduced. Most of the foreign donors, individuals, organization and countries are still battling with this economic meltdown and are cutting foreign donations this is a reduction of funding for engineering education.

3.4 Crime:

As a result of retrenchment of people in the industrial sector due to many factories that are closing down, there is high crime rate. This has scared investors from investing in engineering education. No matter what policies, the government adopts to woo these investors to rescue the sector; the efforts have always been meeting a brick wall. The distress of some of the largest financial institutions also reduced availability of loan (Short term or long term) to finance necessary equipment for training and organization of training schemes.

3.5. Inadequate Training:

The world is changing everyday due to current dynamic flow of innovations in modern skills. However, due to short fall in funding, there is inadequate training to acquire these modern skills.

4.0. Effect of Poor Engineering Education on the Society

4.1. Inadequate Technical Manpower.

No nation can develop without adequate manpower (Fabunmi, M. 2004) since tertiary Institution can no longer afford to train skilled manpower; this has resulted in the low productivity of existing industries. Most of our graduates are not conversant with modern equipment because they were not exposed to them during training since they had little or no practical orientation. These are half baked graduates that need to be re-trained by the company that employ them.

4.2 Social – Economic Effect:

Most of these graduates are roaming about the streets because of unemployment due to economic depression. (Fafunwa, B.A, 1994) Engineering education has exposed them to some modern day equipment. They therefore turn to crime. This has resulted in increased crime rate and sophistication of criminal in the execution of crimes. Some have even turn to big time fraudsters.

4.3 Strikes:

This crisis has affected tertiary institutions greatly. Workers are facing economic hardship and agitation for improvement of their social life through increment in their salaries, where government could not respond adequately to this demand, and the alternative for the workers is to go on strike. (Vaitzey, J. Norris K and Sheeham J, 1972) Strike has affected the quality of engineering products that are being produced for the market.

4.4 General Loss of Values:

People do not value engineering education anymore. The young ones are now seeking money in a crude way since there is inadequate demand for technical skills in the labour market. (Compass, 2009)

5.0 Conclusion

The discussion thus far reveals the urgent need for all the stakeholders to begin to take precautionary steps against possible effects of the global economic meltdown on engineering education. Already, there is a strong apprehension that the current global economic meltdown may soon be taking its toll on engineering education as most governments are beginning to cut down expenditure, educational expenditure may not be left out. Also, foreign donors are also finding it difficult to even adequately meet their own needs; hence foreign aid to tertiary institution has drastically reduced. The naira purchasing power is also low and many institutions can not afford this high exchange rate to import equipment and modern technology wares which could have improved our technological – know – how. More also, industries are closing down, this creating unemployment of young graduates.

6.0. Recommendations

Suggestion To Overcoming The Effect Of Economic Meltdown In Engineering Education:

The following suggestions can be helpful in combating the effect of economic meltdown.

6.1 Mechanisms to raise funds:

There should therefore be inbuilt mechanisms to raise funds without compromising standards, structural readjustment through good planning, collaboration of industries with institution through innovative strategy and approach and restructuring the curriculum to be technology based; these will help to reduce effect of this economic crisis.

6.2 Introduction of Innovative Strategy and Approach:

In times of economic depression, government and other stakeholder should develop innovative approaches to ensure continuing re-tooling and capacity building of staff in order to operate at the cutting edge of their discipline (Nwanko, J.I, 1982). This involves sound management team which is expected to, among other things, evolve a realizable management strategy. More funding of research that will benefit the nation is advocated.

Industries and other stake holders should be ready to fund research and be precise on of their needs. Basically, they should collaborate with tertiary institutions in the area of funding, and research work that will be suitable to the needs of our environment.

6.3 Good Planning:

There should be short and long terms plans. The short term plan should include adequate maintenance of available equipment and laboratories in our tertiary institutions.

Government and institutions should resuscitate staff exchange programmes for manpower development and capacity building. (Fadipe, J.O, 2000) Students' Industrial attachment should be more effective. Establishment of effective institutional consultancies services which may generate or bring more income needed for improving engineering education. The long term plan includes identifying the needs of the industrial sector, design and modeling of the machines that will meet modern standards. Training and re-training of staff in modern technology internally and overseas is also recommended. Government and the management of tertiary

institutions should create a conducive environment for staff development and also improve staff welfare. (Schultz, T. W, 1971)

6.4 Updating and Restructuring the Curricula:

The Curricula should be updated and restructured to meet the standards of the national economy in the 21st century, (Babalola, J.B. 2008) There is no denying the fact that there are gaps in terms of responding to the needs of the economy, so if we are still producing graduates based on the curriculum that has been prepared to develop certain skills and those skills are not in harmony with current needs, surely the employers will not be happy. In other words, the demand has changed: It has change from manual to computerized/ automated stage, therefore the Institutions must respond as fast as possible towards meeting the demand by keeping abreast of time in terms of the curriculum. Also there should be effective monitoring of public and private institutions to ensure strict adherence to stipulated minimum standards.

6.5 Mass Mobilization and Value Re-orientation:

There should be mass mobilization and value re-orientation among students. Emphasis should be laid on hard work, discipline and self service. This means ultimately that the institution should take their destiny in their own hands by instilling discipline, and self reliance in their graduates while attaining their training modules to these ends.

6.6 Autonomy of Institutions:

Even before the economic meltdown, the characteristic pattern of government's budgetary allocation to education in general has not been favourable. In this economic crisis, there has been downward plunge in budgetary allocation to education. For the tertiary institutions to move away form this pattern of near almost total dependence on government funding, autonomy should be given to them. The institution should be allowed to source for funds internally and externally.

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