# MED and MUC Equations: A Comparative Analysis of Counter-Current Development Model for Developing Countries in the Knowledge Driven Economy

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# Abstract

This paper compares two sub-models under the Counter-Current Development Model in order to discover the remarkable differences between the two. These models are Meritocracy, Excellence and Development (MED); and then Mediocrity, Underdevelopment and Corruption (MUC). The equations are formulated and explained so as to let any developing country who wishes to advance to another level grab the ideas and employ them. Acceptance and application of the MED model would result in radical positive change (and such nations will be MADE); whereas neglect of MED would result to presence of MUC which is evidenced by continuous economic stagnation or backwardness (and such nations will be MOCKED). Recommendations are given for the promising and rewarding development model.

Keywords: Counter-current development, MED model, MUC model, Developing countries, Knowledge economy

## Introduction

The Counter-current Development Model (CCDM) is likened to a flowing river or stream where counter-current movement is usually difficult because it needs energy, dedication, diligence, creativity, ingenuity, skills and expertise. Also it is also likened to a swimmer who moves counter-current, if he will succeed, must arise and jump with the tide (i.e. hurdles, obstacles, barriers, etc.) in his bid to move forward. The force he applies must supersede the force of the current, if not; he will be carried down-current or down movement because they are equal and opposite. Quoting Sir Isaac Newton, Okeke and Anyakoha (1987) state the three laws of motion thus:

- 1. A body will continue in its present state of rest (inertia) or, if it is in motion, will continue to move with uniform speed in a straight-line unless it is acted upon by a force.
- 2. The rate of change of a momentum of a body is directly proportional to the applied force that takes place in the direction in which the force acts.
- 3. To every action there is an equal and opposite reaction.

# **Counter-Current Development Model Equation**

For a fuller understanding of the concept of Counter-Current Development Model (CCDM), Chikwelu et al, (2014) had presented and explained the CCDM equation thus:

$$A = \frac{f_2 - f_1}{m}$$

Where A is the rate of accelerated forward movement,  $f_1$  is the force of the current,  $f_2$  is the counter-force applied by the swimmer and m is the inertia (that reluctance) of the swimmer. Observe that A is directly proportional to the difference between the opposing forces  $f_2 - f_1$ .

Let us assume that  $f_1$  is constant. Now, difference is governed or controlled by the applied force of  $f_2$ , i.e. the swimmer. The counter-current movement is activity-based; while down-current movement is caused by the current and outside forces. These are illustrated by Chikwelu et al, 2014 in figures 1 and 2.



Fig.1: Counter-current movement (An activity-based movement)



Fig. 2: Down-current movement (Movement caused by the current and outside forces)

#### **Concepts Clarifications**

In order to have a fuller understanding of the model being discussed, dictionary meanings of the variable terminologies are cited.

*Meritocracy* – Chambers Concise Dictionary (2009) defines meritocracy as "A social system based on leadership by people of great talent or intelligence, rather than wealth or noble birth. It is government by this kind of group."

*Excellence* – Excellence is a French word which stems from a Latin word "*excellentia*" meaning Great worth; very high or exceptional quality (Chambers Concise Dictionary 2009).

*Development* – Rodney (1972) states that "Development in human society is a many-sided process. At the level of the individual, it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being". At the state level, he states that "Development means a capacity for self-sustaining growth. It means that an economy must register advances which in turn will promote further progress".

*Sustainable Development* – Longman Dictionary of Contemporary English (2009), defines Sustainable Development as the kind of development 'that is able to continue without damaging the environment' i.e. the development that is eco-friendly. Moreover, according to European Commission (2014) Sustainable Development stands for meeting the needs of present generations without jeopardizing the ability of futures generations to meet their own needs – in other words, a better quality of life for everyone, now and for generations to come. It offers a vision of progress that integrates immediate and longer-term objectives, local and global action, and regards social, economic and environmental issues as inseparable and interdependent components of human progress.

Equation (1)

 $\frac{MOTUM + Sacrifice}{Protection / Production} = MED$ 

Where:





# **Concepts Clarifications**

For clarity sake the model being discussed are cited as defined by previous authors.

Mediocrity - "Of only middle quality, ordinary; commonplace" (IWCDEL, 2013).

*Underdevelopment* – Mittelman and Gauba (2003) define development as the increasing capacity to make rational use of natural and human resources for social ends, whereas underdevelopment denotes 'the blockage which forestalls a rational transformational of the social structure'. According to Gauba (2003), people wish to make best use of their natural and human resources in order to achieve their social ends. The process which facilitates their effort in this direction is called 'development' the factors which hinder them in this effort are called 'underdevelopment'.

Corruption - Citing some authors, Nweze, (2012) identified several definitions of corruption as follows:

- Dishonest or immoral especially by people with power.
- Violation or pervasion of established rules for personal gain or profit.

- Efforts to secure wealth or power through illegal means. •
- Private gain at public expense. •
- Misuse of public power for private benefit. •
- Anti-social behaviour conferring improper benefits contrary to legal and moral norms and which undermine the authorities to improve the living conditions of the people.

He further pointed out the offshoots of corruption to include: bribery, nepotism, misappropriation, fraud, embezzlement, extortion and favouritism.

In the context of the above model, no country can be sustainably MADE without the necessary considerations; i.e. supporting MOTUM and sacrifices made by the people with effective protection. In other words, countries which primarily focus on Meritocracy, Excellence and Development (MED) will be MADE economically, politically and technologically. First and foremost, Counter-current Development Model maintains that people of a country must be mobilized, organized, trained and developed, utilized and be well motivated for greater efficiency in productivity. Ezeani (2002) emphasizes that "there is no doubt that the ability of any organization or society to achieve its goals depends to a large extent on the caliber, organization and motivation of its human resources". And in order to pursue and maintain sustainable and integrated development, a developing country, such as Nigeria should pay greater attention to merit (competence), excellence and team work in research and development activities.

## Down-current or down-stream underdevelopment experience

The down-current underdevelopment experience is usually associated with directionless and visionless on the part of political leaders who pilot the affairs of the state or country. Such a country is characterized by:

- Lack of mobilization of the people •
- Lack of organization of the people
- Lack of planning in training and development and gross under-utilization of manpower
- Lack of motivation of the people etc.

In addition to the above, there is no sacrifice because those who manage the affairs of the state or nation do not believe in the future; they believe in the satisfaction of the present due to their short-sightedness, i.e. (political and economic myopia) or call it nearsightedness. And because of this narrow mindedness and lack of transformational leadership potentials, they do not protect and manage the possessions of the country properly. It is therefore pertinent to note that when a country does not protect and manage what it has (both natural and resources) properly, she will lose it or at least, the best part of it to those who need it, or at worst, just waste it. Nigeria, for instance, records gross under-utilization of manpower, very high rate of unemployment, an aggravation of brain drain and intellectual decay due to none-utilization, especially, those whom they say have retired (but not yet tired). Such people with great wealth of experience and competence are still very much active in industrialized countries because the environment is still very conducive for them to operate effectively. But in Nigeria such bright brains are not used because of environmental sterility and hostility. So, the above could be represented thus:

Equation 2:

 $\frac{Lack + No.Sacrifice}{No.Pr \, otection / No.Pr \, oduction} = MUC$ Where: M – Mediocrity

- U Underdevelopment
- C Corruption

Thus, inability to make sacrifice coupled with the "lack" amidst wild uncertainties (no protection) could bring about mocking in the down-current lives of a country. In fact, looking up at the whole scenario, the underdeveloped countries which are suffering from Mediocrity, Underdevelopment and Corruption (MUC) are being MOCKED by the advanced industrialized countries of the world that have the knowledge to manipulate and control the world economy to their own advantage. In the down-current underdevelopment experience, the people, who are supposed to be the greatest and the most important asset of a country, are not mobilized, organized, trained, utilized and properly motivated for them to be able to conquer their environment through meaningful research, high quality productive capacity and other development activities in order to attain sustainable and integrated development; and then maintain high standard or living in the country.

In Nigeria for instance, human capital are grossly under-utilized because of lack of mobilization and organization of the available human capital in the country due to shortsightedness of Nigerian leadership. Nigeria experiences brain-drain due to many definable factors. Nigerians are migrating or fleeing to advanced countries of the world as a result of push and pull factors. Push factors remains: lack of employment opportunities, lack of research equipment and other crucial facilities such as energy for research purposes, etc.; while pull factors include; availability of educational facilities, favourable employment chances, golden opportunities to exhibit what they know or what they can do and have fulfillment in life; and of course, a more favourable and peaceful environmental condition.

It is unfortunate that most of the developing countries, including Nigeria are following sheepishly the development logic of the advanced industrialized countries without first considering their own fundamental problems peculiar to them. They are remaining in their comfort zones without coming all out to face the realities of sustainable self-reliant development. They prefer posturing to action; they prefer passivity to activity; they prefer flowing downstream instead of counter-current; they prefer being MOCKED to being MADE great nations in the world community. They prefer to enhance mediocrity instead of meritocracy, excellence and competence.

This is why Counter-Current Development Model stands sharply against down-current underdevelopment processes where foreigners dictate and control the development patterns of the developing and underdeveloped countries, thereby making them to follow strange economic and development policies and models which contradict what would have been these countries development peculiarities and conditions. The logical or sequential development situations are selfishly ignored. These one-size-fits – all policies or cure – all medicine approach which is very unscientific being introduced by these advanced countries and their financial institutions like IMF and the World Bank, etc., have kept the economies of the developing and the underdeveloped countries perpetually dependent on the economies of these countries. It has become clear that developing countries don't plan for continuity or sustainability. This is because their economies are made to depend consistently on the economies of the advanced industrialized countries thereby jeopardizing the survivability of their sovereignty. This dependence and client or peasant mentality posture of these poor countries in turn deteriorates into powerlessness which results among other things to:

- (a) Weak and unorganized educational system.
- (b) Gross under utilization of manpower in these countries
- (c) Weak agricultural and raw material base
- (d) Backwardness in research and development
- (e) De-industrialization
- (f) Modernization (cosmetic socio-economic change) without development
- (g) Infrastructural backwardness
- (h) Weak leadership base (lack of visionary and transformational leadership)
- (i) Corruption due to selfish mind-set and political leadership myopia, etc.

So, Counter-Current Development Model (CCDM) maintains that countries that depend on others virtually for everything do not usually attain sustained growth or development. This is because they are not following the right path or patterns or models that will help them attain the enviable height of sustainable and industrialized economies. They are not prepared yet to face the economic, technological and human capital challenges that will enable them embark on self-reliant integrated development that must start from within. Nzamujo, G. (2009:35) clearly states that:

"We are poor because the wrong economic equation is going on in Africa. We are not doing things our own way; we are not playing home game; that is why we are losing. Our economy has been made to produce raw materials just to support the economy of Europe. So we are living on the logic of the outside world".

Counter-Current Development Model has been propounded so that Nigeria and other developing and underdeveloped countries will come to live on their own logic and follow their own economic equation that will be attuned to their own local environment and realities. Not that these countries should not depend at all on other countries, but let dependence be a kind of reciprocal relationship or equal exchange; and not a relationship where few countries become very active and the others very passive. There must, therefore, be a change of strategy and direction, a change of orientation and a change of attitude to enable these poor countries face the challenges of sustainable development via the Counter-Current Development Model so as to participate ACTIVELY in today's globalized economic order. They will have to move counter-current to be able to reject all unprogressive forces or ideas that have kept them in the state of economic and technological inertia for a long time now.

#### **Conclusion and Recommendations**

As earlier indicated, Counter-Current Development Model is a knowledge/production driven model which must start from within the development model demands that human capital or manpower which is the greatest asset of a country must as a matter of policy undergo training and re-training from time to time for productive/innovative purposes. However, no country can reach its destination if that country fails to mobilize, empower and utilize her manpower for sustainable national development. When Nigeria and other developing countries adopt the Counter-Current Development Model as a pattern to reach their destinations their economies will progressively

become very productive and their competitiveness in the present asymmetrical global economic environment will be guaranteed. Moreover, for these developing countries to be great nations in concrete terms, the people and their leaders must be equipped with highly qualitative and productive knowledge that will set in motion their creative and innovative abilities. When this happens, their passivity will turn to meaningful activities. At this point there will be a kind of balance of power between industrialized nations and the developing countries; this is a kind of symmetrical situation that will lead to reciprocal relationship between nations in the globalized economic order. Presently there are a lot of asymmetries in the globalized economy; therefore, Nigeria and other developing countries should endeavour to give their people qualitative and productive technological education and effectively utilize them for sustainable development of their countries. This will help them to stop flowing down-current defencelessly without resistance, but rather, they should control their destinies by moving counter-current and reach their destinations. Although, this movement needs a lot of sacrifices, strength, innovations, determination in the part of the leaders and the led in the developing countries.

The model also requires that:

- a) Human capital or manpower of a country must not be wasted or under-utilized.
- b) A country must not import what it can produce or manufacture.
- c) There must be organized teamwork both in research and development activities.
- d) There must be consistent maintenance of synergies between Research Institutes, the Universities and industries so that research will not be for academic purposes alone.
- e) There must be linkages in the economy for solid economy base that will attract sincere investors.
- f) Development must be integrated and sustainable
- g) There must be maximum utilization of our renewable resources such as solar energy
- h) There must be conscious development of the country's technological and industrial base.

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