

Achieving Organization Efficiency Through The Application Of Strengths, Weaknesses, Opportunities And Threats (Swot) Analysis: The Case Of Nigerian Universities

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Abstract

The use of management technique in education suggests a means towards achieving greater efficiency and high productivity. It is an efficient means of reaching an objective or goal. The paper examines the expected functions of a university in the society. It also emphasizes the need to work towards making a university more efficient in order to play such roles successfully. It has been established in the paper that several management techniques abound and available for the university to adopt in order to be efficient in all its operations. Out of the management techniques identified in the paper, The SWOT analysis has been considered to bring about the desired result for the university to adopt. The paper further examines the concepts of efficiency, educational efficiency, dimensions, measuring devices of efficiency and swot analysis. The problems facing Nigerian universities that are making efficiency difficult to be achieved are highlighted. The paper also highlights the indicators of efficiency in a university system. The paper presents Swot analysis worksheet to guide the process of its usage in the university. In the paper, some models are developed to explain the correlation between university efficiency and SWOT analysis and between efficiency and high productivity. Finally, the paper discusses the implications of efficiency in the university for the university managers/administrators and government.

Keywords: Organization, efficiency, strengths, weaknesses, opportunities and threats (SWOT), productivity, universities

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I. Introduction

Every organization is established for a purpose. For private investors, the goal is essentially to make profits while in public organizations such as education institution, the goal is to provide services for the use of the citizenry. However, observations abound that private businesses are more efficient and effective than public institutions. Several reasons have emerged and provided on this gap and performance deficit. For instance, some people believe that while it is easier to identify the owner of a private business entity, this is not the case in public establishment. Hence, the statement “public institution is no man’s business”. It is no more a news that close supervision and monitoring of activities in private establishment is much more pronounced and emphasized and this usually lead to the observed efficiency there unlike in public establishment where supervision and monitoring are very weak or loose and sometimes, zero. This, on the other hands, usually have a multiplier negative effect on the efficiency as well as productivity in public institutions. This is in line with Taylor’s scientific management theory that emphasises *efficiency* and *high productivity* as the guiding principle.

The essence of using management technique is to obtain maximum efficiency and high productivity. Most of the management theories are not practicable because of chances in people and technology. However, there is a need to come out with a pattern of thinking that will inject greater efficiency into organizational practices. It is therefore different methods through which original issues, problems and all related matters are dealt with for the purpose of bringing greater efficiency into organization (Adepoju, 2017)

Tackling the problem of inefficiency in public institutions such as education institutions and more specifically, higher education institutions requires pragmatic approach and application of reliable management techniques such as Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis, Management by Objectives/Results (MBO/R), Performance, Evaluation, Review Technique (PERT), Critical-Path Method (CPM), Cost-Benefit Analysis, Delphi Method, Linear Programming, Planning, Programming, Budgeting and Evaluation System (PPBES), Mount Carlo Technique, Operational Research, Communication Theory, Input –

Output model, Management Information System (MIS), Waiting line or Queuing, Economic Order. Goal Programming, Dynamic programming, Simulation, Transportation model, Integer programming, Marker Analysis, Heuristic programming Model, Common Business – Oriented Language Programme (COBOL) (Adepoju, 2017; Adepoju, 2018b; 2018c) and host of others.

The use of these techniques had been proved to be effective in solving the problem of inefficiency in organizations. However, in the context of this discourse, the Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis would be examined vis-à-vis Efficiency in the University system.

A University essentially has three traditional functions, these include teaching, research and community service but the transformations all over the world today have widened the scope of university's function. According to Adepoju (2018a), "the development in the world today as a result of globalization, climate change and information and communication technology has widened the scope of university to include adoption of innovation and technological update so as to meet global challenges and best practices in terms of teaching strategies and improvement in learning process. University education also contributes in no small measure to human capital development of a nation apart from the socio-economic transformation of individuals and the country at large". The best one can think of a university system in this technological driven society and knowledge based-economy is to make it more efficient so as to achieve its goal hence, the application of Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis as proposed in this paper.

University and its Major Functions

Universities, all over the world play significant role in nation building, human capital formation and economic growth, no wonder, many countries, particularly, developing ones have been remodeling their universities' structure by introducing measuring devices to enable the universities compete favourably with their counterparts in developed countries. Attempts have also been put in place in some developing countries to ensure that universities meet the global best practices and metamorphosed into World Class status.

In developed countries, industrial sectors look up to Universities to help them conduct researches on development of their products. Hence, the positive University-Industrial harmonious relationship. This is not so in developing countries. The need to widen the scope of University functions is therefore very imperatives.

It is extremely difficult for universities in developing world to achieve World Class status if they remain static in their operations and keep on with old tradition of doing things without embracing pragmatic and paradigm shift from the old tradition.

Having observed the inability of public universities to absorb all intending candidates (supply-demand mismatch), private sector participation in the provision of university education has been encouraged by government particularly, in Nigeria. For example, the number of universities has increased to 165 as at October, 2018. From this number, 90 are public universities (43 Federally-owned, 47 State-owned), while 75 are privately-owned (NUC, 2018). As at April 2021, the number of universities in Nigeria has risen to 196 (45 Federal, 52 State and 99 Private) (NUC, 2021) making Nigeria to be the country with highest number of University in Africa. The implication of this is the need to make this sector more efficient with the use of reliable and pragmatic management technique such as SWOT analysis

The Concepts of 'Efficiency' and 'Educational Efficiency'

No organization can successfully accomplish its goals without any consideration for the efficiency of its internal and external operations. In other words, certain parameters or indicators of efficiency are expected to be put in place or considered as measuring indices to maintain the state or degree to which the objectives of the system have been accomplished (Adepoju & Ajiboye, 2011).

Several definitions have been given to the term 'efficiency' by experts. For instance, Akangbou (1987) described efficiency as the attempt to see how outputs produced from a given quantity of inputs can be increased or how outputs produced can be kept at the same level even when input level is reduced (Akangbou, 1987). Efficiency according to Adepoju & Ajiboye (2011) refers to the ratio between the output of an organization, establishment or department and the inputs used in producing the output'. From the above definition, the concept of efficiency is closely connected to productivity, for it is through maximized efficiency that maximum productivity could be achieved. By implication, any given set of inputs should be maximally utilized so as to produce the largest value of output. Conversely, if a given level of output is intended to produce, the input should be completely minimized.

It needs be emphasized that efficiency minimizes or completely remove waste. It is always use in relation to either the inputs or outputs of the system. In other words, an efficient -oriented system is said to be the one that produces required benefits and minimises or avoids in its entirety, wastages. Okeke (1985) opines that, organizational efficiency depends on the proper combination of two factors, namely; the personnel skill factor and the equipment and supplies factor.

In relation to university system, efficiency refers to the relationship between the inputs into the university and the outputs from it. More succinctly put, it is the capacity of the university system to minimize its inputs to produce maximum outputs (graduates). A university is believed to be efficient if it produces maximum output with a given quantity of input (Olagboye, 1998).

II. Dimensions and Measuring Devices of Efficiency in the University

Inputs and outputs of the educational system are the two discernible devices for measuring educational efficiency. In order to measure the efficiency of the education system, one has to determine the inputs (teachers, administrators, funds, instructional resources) into the education production process, and the outputs (graduates) of such system (Adepoju, 1998a).

Longe & Durosaro (1988), Adepoju (1998b) and Oluchukwu (1999) have in their various works indicated how difficult it is to measure the output produced in the education system unlike industrial output. The fact that the output of the educational system is intangible is a contributing factor to problems face in measuring educational output. The situation is even worse in developing countries where adequate and reliable data are not available.

According to Adepoju (1998a), there are two dimensions to which efficiency may be viewed in education. These are: internal efficiency and external efficiency. While the former is endogenously – inclined (internally influenced), the latter is exogenously – inclined (externally influenced). The university as an educational organization therefore has two dimensions to which efficiency could be viewed both internally and externally. This could be expressed diagrammatically as shown in figure 1 thus;

Internal Efficiency of the University

Internal efficiency of the university is the relationship of its output (graduates) to its inputs (teachers, administrators, funds, instructional resources). It is the extent of the university to minimise cost and reduce wastage resulting from repetition, dropout and failures. In the university, internal efficiency can be measured by the dropout rate and the completion rate of the system. In other words, internal efficiency can be easily measured using certain discernible parameters as indicators unlike the external efficiency of the school system (see Longe & Durosaro, 1988; Fadipe, 1999).

External Efficiency in the University

External efficiency of the university system on the other hand can be described as the process or ability of the system's output to meet the expectations of the general populace. It is the ability of the system's output to meet the needs and aspirations of the society or particular community. External efficiency is always used in terms of the relevance of the system to the societal needs and aspirations (Adepoju and Ajiboye, 2011). When a system or its output is relevant to the societal needs, such a system is said to be external efficient (Adepoju, 1998a). Olagboye (1998) stresses that external efficiency relates to the degree to which the system meets the broad socio-political, cultural and economic objectives of the larger society. In more specific term, external efficiency of the system is the rate at which the product of such system is acceptable by the outside world. In the case of the university, the more its graduates are acceptable by the outside world and in terms of World Ranking, graduate employability and demand for its graduates, the more it is regarded as being efficient.

III. The SWOT Analysis

The SWOT analysis is a management instrument towards identifying the strengths, weaknesses, opportunities and threats of an organization. Ability to apply swot analysis by an organization would easily help such organization to achieve its corporate goal. It has been observed that most organizations these days apply 'Rule of Thumb' in their day-to-day activities and this has made it difficult for such organizations in the 21st Century with attendant characteristics to attain their goals hence, the need to re-define their roles, goals and strategies and adopt swot analysis (Adepoju, 2018a).

The SWOT analysis involves specifying the objectives of the organization or project and identifying the internal and external factors that are favourable and unfavourable to achieving that objectives. The technique is no doubt, an extremely useful tool for decision-making of all sorts of situations in a given human organization such as the school system. It provides a good framework for reviewing strategy, position and direction of an organization or any other idea (www.mindtools.com/pages/article/n....SWOT Analysis).

The technique measures an organization unit, a proposition or idea. It is a subjective assessment of data which is organized by the SWOT format into a logical order that helps understanding, presentation, discussion and decision-making. It can be used for all sorts of decision making, and the SWOT template enables proactive thinking, rather than relying on habitual or instructive reactions (Wikipedia.org/wiki/Swot_analysis).

IV. Problem facing University Education in Nigeria

Universities in Nigeria are faced with mirage of problems. These problems are the impediments toward achieving efficiency and thereby preventing any of them from achieving not making any of them to be recognized as World Class status in the previous World Rankings of Universities. Some of these problems according to Adepoju & Famade (2010) are;

- i. Manpower supply related problem;
- ii. Resources / equipment related problem;
- iii. Finance / Funds;
- iv. Energy related problem;
- v. Political Instability which often leads to incessant change in policies; and
- vi. Lack of strategic planning.

Adepoju and Okotoni (2018) also identified the following as the problems militating against higher education institutions (university system inclusive) in Nigeria.

- i. Funding problem;
- ii. Changing public expectations;
- iii. Changing and uncertain job market for graduates;
- iv. Growing privatization and commercialization of public institutions;
- v. Politicization of University education;
- vi. Shortage of academic staff;
- vii. Increase workload of academic staff;
- viii. Poor remuneration for staff; and
- ix. Lack of instructional resources.

These problems have led to several industrial strike actions by various unions in Nigerian Universities in recent times, the result is disruptions of academic activities, loss of manpower hours and extension of duration of students' programmes. No doubt, none of the universities was among the World Class Universities. For these reasons, there is need for a pragmatic approach to revive these universities to bring forth efficiency. Hence, SWOT Analysis.

V. SWOT Analysis and University Efficiency

For any human organization such a university to achieve its predetermined objective of producing graduates, it must be efficient in its operations, and one of the measures towards making such efficiency feasible is the application of effective management techniques such as SWOT analysis.

Universities in the modern societies need to re-strategize and re-define their approaches otherwise, meeting global challenges may be extremely difficult if not impossible. And, for a university to be categorized among world class universities requires the adoption of modern instruments and strategies such as swot analysis. In the context of this paper, attempts are made to establish the how, when and need for swot analysis into the structure, system, programmes, projects, research and teaching activities of the university for the purpose of achieving its corporate goal.

According to Adepoju (2018), in a university, SWOT analysis can be used to assess;

- its position, viability, product, etc.;
- a method of graduate employability;
- its graduate assessment; and
- a strategic position and option, such as starting operation to produce graduates.

The environment within which the university operates is a deciding factor in the achievement of its objectives. This therefore, implies that such environment should be examined vis-à-vis the swot of the university to help the system operates successfully. The efficiency of the university system to a very large extent depends on the swot analysis consideration. Hence, there is a nexus between the two variables as expressed in the equation thus;

$$Uef = f(Swot).....1$$

Where;

- Uef = University efficiency (Internal and External)
- Swot = Strengths, Weaknesses, Opportunities and Threats
- f = functional notation.

From the above expression, university efficiency is said to be a function of the application of swot analysis. While 'Uef' is a dependent variable, 'Swot' is an independent variable. This could be expressed further in a linear curve thus;

From Fig. 2, there is a linear correlation between swot analysis 'swot' and university efficiency 'Uef'. In other words, the simple linear equation ($y=a+bx$) and curvilinear regression have shown that the more the university applies swot analysis into its operations, the higher the level of efficiency (internal and external) that would be achieved which would ultimately generate a multiplier positive effect on the potency of the system to accomplish its vision and mission. When this is realized, then, there would be achievement of its corporate goal.

Arising from the above expressions is the thesis that, when a university is efficient in both its internal and external operations, the possibility of achieving high productivity is not in doubt. This is to say in essence that it is sure that such university would achieve the purpose for which it was set up. This expression can therefore be used to explain the assumed correlation between efficiency and high productivity in the university.

$$Hp = f(Ef).....2$$

Where;

Hp = High Productivity

Ef = Efficiency

f = functional notation

This expression has shown that 'Hp' is a dependent variable while 'Ef' is an independent variable. By implication, for a university to realise high productivity, it should be highly efficient.

This could be expressed further using linear and curvilinear regression thus;

From Fig. 3, there is a linear correlation between Efficiency 'Ef' and High Productivity 'Hp'. In other words, the simple linear equation ($y=a+bx$) and curvilinear regression have shown that, the more the university is efficient (internal and external) in its operations, the higher the level of productivity that would be achieved and this would ultimately generate a multiplier positive effect on the system.

Let us also consider the model in figure 4 to drive home the point raised above for more clarification.

Fig. 4 shows what would happen to a university that applies SWOT analysis into its operations in terms of its primary and functional roles of teaching, research and community service as well as technological advancement based on the new trend of globalization, climate change and information and communication technology.

Indication that a University is Efficient

For a University to be regarded as being efficient, the following questions should be posed and answered in an affirmative manner;

- i. Have the vision and missions of the university been accomplished or nearly accomplished?;
- ii. Are the existing structure being mobilized towards accomplishing the vision and missions of the University?;
- iii. Are there high demand and market for the university's products (graduates)?;
- iv. Are the limited resources available to the university judiciously used to achieve high productivity?;
- v. Are the academic staff in the University highly productive with cutting edged researches?;
- vi. Has the university attained a World Class status like others or nearly reaching the stage?;
- vii. Does the University employ minimum inputs to produce many graduates?;
- viii. How often are the academic activities being distorted in the University?;
- ix. Are there harmonious relationships among the various unions and the University management – conducive working environment/climate?;
- x. Are staff development programmes available for the staff-members in the University to increase their productivity?;
- xi. Are products of the university highly valued and demanded for by the outside world?;
- xii. Are the University's programmes accredited by accrediting agencies?;
- xiii. Are the University graduates able to compete favourably with others all over the world?;
- xiv. Does the University appropriately make projections for staff and students needed?; and
- xv. Does the university always sustain its achievements?

These are the likely indicators that could determine the efficiency of the university.

VI. SWOT Analysis Worksheet and Template and its Application in the University

According to Adepoju and Famade (2010) as cited by Adepoju (2018a), The first step in a SWOT analysis is to make a worksheet by drawing a cross, creating four sectors $\frac{3}{4}$ one each for strengths, weaknesses, opportunities, and threats. An outline of a worksheet is shown in Figure 5 while the template is shown in figure 6. The first step is to prepare a worksheet as shown in figure 5. The next step is to list specific items related to the problem at hand, under the appropriate heading in the worksheet as shown in the template in figure 6. It is best to limit the list to 10 or fewer points per heading so as to avoid over-generalizations.

In the words of Adepoju and Famade (2010) and Adepoju (2018a), the SWOT analysis should cover all the following areas, each of which may be a source of strengths, weaknesses, opportunities or threats:

Internal environment of the institution

1. Members of staff-members in each department/ faculty.
2. classrooms, laboratories and facilities (the learning environment) available for the department/ faculty .
3. Population of students in the current academic year in the department/ faculty.
4. Approved budget for the current year for the department/ faculty.
5. All the committees set up in each department/ faculty.
6. All academic programmes in each department/ faculty.

External environment of the institution

1. prospective employers of graduates of the university.
2. parents and families of students in the university.
3. other universities competing with the university in question.
4. secondary schools that are preparatory to gaining admission into the university.
5. population structure and demographics.
6. structure of generating funds for the university.

It should be noted that the items grouped under Internal environment of the institution are essentially, Strengths and Weaknesses while items grouped under External environment of the institution are essentially, Opportunities and Threats.

VII. Implications of Organization Efficiency for University Managers/Administrators and Government

Achieving efficiency in the university has some implications for educational managers/administrators and government. The implications are discussed thus;

University Managers/Administrators

The University managers/administrators should have deep knowledge of educational management, this would enable them to be acquainted with various techniques of managing the system and make rational decisions. Apart from having the re-quisite knowledge, such knowledge should be updated and beefed-up overtime through periodic seminars, workshops and trainings to enable them more relevant and current on issues relating to organization management. It behooves on the university managers also to ensure that the university incorporates strategic planning into the operations of the system, this would pave ways for the successful application of swot analysis which would ultimately bring about efficiency into their organizations (see Adepoju & Subair, 2015). Staff development programmes should be given high priority/consideration by the university managers. This would motivate the staff to always work efficiently towards achieving high productivity. Attached to this is the need to carry the staff along when the decisions are to be made.

The management of the university should always open to new ideas that could improve the operations of the university by members of staff and/or outsiders for the benefit of the university. In the same vein, the university manager should be well focused towards achieving the vision and mission of the university where he is the Chief Executive Officer.

University should develop specific development programmes/plans for a given period (short-term, 1-3 years, medium term, 4-5 years, long term, 10-25 years). This would help the university manager to be focused in achieving the university vision and missions.

Government

Government should always ensure that the appointment of the University manager is not politicized in such a way as to distort the operation of the institution. Instead, qualified person with requisite knowledge of educational management (that knows much about management techniques) should be appointed as the university manager. It also behooves on the government to make sure that the universities in the country are well funded and their programmes monitored by accrediting agency (NUC) such that they would not overshoot their carrying capacities as being observed in some universities in the country in recent times.

VIII. Summary and Conclusion

Attempts have been made in this paper to examine the major functions of a university and the need to make it more efficient through the application of Swot analysis into its operations and activities. The paper has shown that the use of management technique in education suggests a speedy production of results and a consistency of output i.e. a high quality result or an efficient means of reaching an objective. Management

techniques are essentially a means towards achieving greater efficiency and high productivity. This is in consonance with the principles of management practice/thought as developed by Fredrick Winslow Taylor, Henri Fayol and Max weber in their Scientific Management, Administrative Theory and Bureaucratic Principles respectively.

The paper examines the concepts of efficiency, educational efficiency, dimensions and measuring devices of efficiency and swot analysis. The problems facing Nigerian universities and which are making efficiency difficult to be achieved are highlighted. The paper also identifies the indicators of efficiency in a university system. In the paper, Swot analysis worksheet is provided to guide the process of its usage in the university. The paper also developed some models to explain the correlation between swot analysis and university efficiency and between efficiency and high productivity. The paper concludes that swot analysis is a powerful management technique that could be used to make the university more efficient and its vision and missions realizable.