

Planning Higher Education for Industrial Revolution and Human Capital Development in Nigeria: Issues and Challenges

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ABSTRACT

The significant contribution of a well-planned investment in education to industrial revolution is very obvious, considering the rate at which countries like Japan, China and other industrialized countries rose to their enviable state of industrial and economic development today. Unlike the Developed Countries (DCs), Third World Countries or Less Developed Countries (LDCs) are facing several challenges. Among the challenges are poor educational planning and implementations of policy statements. Such challenges have indeed impeded the expected industrial revolution and economic development in the affected countries. By implication, there is no short-cut to development in whatever form. A country that adequately plans and invests substantially in human capital will develop rapidly. The human capital theorists have also subscribed to this thesis. This paper is an explorative analysis that examines the influence which effective educational planning could have on industrial revolution and economic development in Nigeria. Some issues and challenges in respect to industrial revolution and economic development were also discussed in the paper. It also examines the status of higher education and holders of higher education degrees in Nigeria vis-à-vis her economic development. The paper finally presents some conditions that should be considered for effective planning of higher education towards possible industrial revolution and economic development in Nigeria.

Keywords: Higher education; industrial revolution; economic development; challenges; third world countries; human capital development; educational planning; Nigeria.

INTRODUCTION

Higher education in the context of this paper is referred to as the type of education provided after secondary education in universities, colleges of education, polytechnics, monotechnics and other institutions offering correspondence courses.

It has been documented that university education shall make optimum contribution to national development: intensify and diversify its programmes for development of high-level manpower within the context of the nation's needs, among others (FRN, 2024). Polytechnic education on the other hand, is to provide full-time or part-time courses of instruction and training in engineering, other technologies, applied science, business and management, leading to the production of trained manpower; provide the technical knowledge and skills necessary for agriculture, industrial, commercial, and economic development of Nigeria. It is also to train and impart the necessary skills for the production of technicians, technologists and other skilled personnel who shall be enterprising and self-reliant; train people who can apply scientific knowledge to solve environmental problems for the convenience of man; and give exposure on professional studies in the technologies (FRN, 2024). The goals of teacher education as provided in colleges, faculties and institutes of education are to produce highly motivated, conscientious and efficient teachers for all levels of the educational system, and to encourage further, the spirit of inquiry and creativity in teachers among others.

Higher education is no doubt, potentially capable of widening socio-economic growth and human capital development of a country. This is to say in essence that; individual benefits of higher education are well

known (Adepoju, 2026). The idea and belief that investment in education boosts economic growth was first made known by the human capital theorists in early 1960s when their various studies showed how education had contributed significantly to economic growth by improving skills and productive capacities of the labour force. For a country to be more relevant in this world of globalisation and competitiveness, her institutions of higher learning must adequately prepare the youth for labour market (Adepoju, 2026). This has led to the concept of knowledge economy (KE). KE refers to ‘production and services based on knowledge intensive activities that contribute to an accelerated pace of technical and scientific advancement, as well as rapid obsolescence. The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources,’ knowledge and education forming the key ideas (Adepoju & Okotoni, 2018). For this reason, therefore, the content and context of their curricular should be made relevant to the needs and aspirations of the society.

Table 1: Trends in the contribution of higher education to economic growth and national development

| Year | Education’s Contribution to national GDP | | University’s Contribution to National Productivity | Non-University’s |
|-----------|--|----------------|--|------------------|
| | Actual | % Contribution | % Contribution | % Contribution |
| 1990/91 | 4955.15 | 1.33 | 0.12 | 1.21 |
| 1991/92 | 4979.64 | 1.33 | 0.20 | 1.13 |
| 1992/93 | 5046.82 | 1.33 | 0.17 | 1.16 |
| 1993/94 | 5116.40 | 1.33 | 0.08 | 1.25 |
| 1994/95 | 5151.69 | 1.34 | 0.06 | 1.28 |
| 1995/96 | 5150.22 | 1.31 | 0.06 | 1.25 |
| 1996/97 | 5222.77 | 1.28 | 0.13 | 1.15 |
| 1997/98 | 5267.37 | 1.26 | 0.08 | 1.18 |
| 1998/99 | 5311.97 | 1.24 | 0.09 | 1.15 |
| 1999/2000 | 5356.57 | 1.24 | N.A | N.A |
| 2000/2001 | 5401.18 | 1.20 | N.A | N.A |
| 2001/2002 | 5445.78 | 1.13 | N.A | N.A |
| 2002/2003 | 5490.38 | 1.12 | N.A | N.A |

Source: Babalola, J.B. (2007a); Re-inventing Nigerian Higher Education for Youth Employment in a competitive Global Economy. P. 20.

Table 2: Education sector share of the federal budget 2013-2025 (in millions)

| Year | Federal government annual budget | | | Allocation to education | | | % of Total |
|------|----------------------------------|-----------|-----------|-------------------------|-----------|-----------|------------|
| | Capital | Recurrent | Total (₦) | Capital | Recurrent | Total (₦) | |
| 2013 | 9,297.0 | 20,810.1 | 30,107.0 | 221,880.0 | 1,719.8 | 1,941.7 | 6.45 |
| 2014 | 13,452.1 | 27,208.6 | 40,660.7 | 331,746.0 | 1,872.9 | 2,204.7 | 5.45 |
| 2015 | 13,085.4 | 25,580.5 | 38,665.9 | 299,049.6 | 1,488.5 | 1,787.6 | 4.62 |
| 2016 | 15,975.9 | 36,060.5 | 52,036.4 | 395,130.0 | 1,997.8 | 2,392.9 | 4.60 |
| 2017 | 18,116.0 | 93,500.5 | 111,616.5 | 1,563.0 | 6,436.0 | 7,999.1 | 7.20 |
| 2018 | 31,000.0 | 38,200.0 | 69,200.0 | 2,405.7 | 7,878.0 | 10,283.8 | 14.86 |
| 2019 | 44,500.0 | 66,957.5 | 111,457.5 | 3,017.9 | 9,798.6 | 12,816.4 | 11.50 |
| 2020 | 44,477.0 | 76,744.9 | 121,221.9 | 3,215.8 | 12,135.9 | 15,351.7 | 10.81 |
| 2021 | 88,693.0 | 99,396.2 | 188,089.3 | 3,807.9 | 13,033.2 | 6,841.2 | 11.53 |

| | | | | | | | |
|------|-----------|-----------|-----------|---------|----------|----------|-------|
| 2022 | 129,700.0 | 116,607.4 | 246,342.4 | 9,739.6 | 13,928.3 | 23,668.1 | 9.61 |
| 2023 | 88,000.0 | 161,000.0 | 249,000.0 | 8,291.8 | 19,421.7 | 27,713.5 | 11.13 |
| 2024 | n.d | n.d | n.d | n.d | n.d | 56,568.5 | 8.70 |
| 2025 | n.d | n.d | n.d | n.d | n.d | 62,567.1 | 7.00 |

Source: FME (2025)

Table 3: State government education expenditure by level in selected states

| States | Primary | Secondary | Tertiary | University |
|---------|---------|-----------|----------|------------|
| Enugu | 17.0 | 52.7 | 30.3 | 0.0 |
| Rivers | 9.7 | 50.6 | 21.4 | 18.3 |
| Borno | 5.0 | 69.1 | 25.8 | 0.0 |
| Kano | 9.2 | 66.3 | 24.5 | 0.0 |
| Plateau | 3.3 | 83.9 | 12.8 | 0.0 |
| Benue | 11.9 | 50.2 | 13.0 | 10.4 |
| Ekiti | 10.4 | 66.2 | 13.0 | 10.4 |
| Niger | 13.8 | 65.8 | 16.6 | 3.8 |
| Oyo | 23.1 | 37.6 | 27.5 | 11.8 |
| Average | 11.4 | 60.3 | 20.8 | 7.4 |

Source: FME (2025)

Knowledge-based competition within a globalised economy is prompting a fresh consideration of the role of higher education in development and growth. Previously, it was often viewed as an expensive and inefficient public service that largely benefited the wealthy and privileged. Now, it is understood to make a necessary contribution, in concert with other factors, to the success of national efforts to boost productivity, competitiveness and economic growth (Adepoju & Okotoni, 2018).

The World Bank (2022) has also acknowledged and incorporated this understanding within its Africa Action Plan since 2022-2024. This plan highlights several roles for higher education under its strategic objective of building skills for growth and competitiveness. These include the provision of relevant skills to the labour market; a capacity to understand and use global knowledge in science and technology, particularly for agriculture; a capability to assess existing information and generate new understanding through research; and a much closer working relationship with the productive sectors of the economy.

The plan also reaffirms the fundamental importance of expanding primary education, and of linking secondary education to a range of employment options. In short, a more balanced and strategic approach to human capital development is sought in an effort to boost the prospects for economic growth in Africa. Although, much has been learned about the development process over the past five decades. Despite this effort, there is still a missing gap in understanding. One of these concerns the interactions among educational achievement, output performance, and improved national income. This study was commissioned to review what is known about the conceptual underpinnings for higher education’s role in development, and to assess empirical evidence that might lead to a better understanding of how these interactions function in practice.

Babalola & Jaiyeoba (2018) posit that learning at the tertiary level of education could be described as being effective if it results in bringing about the expected transformations in the attitude, skills and knowledge of higher education students over a period of time. As Babalola & Jaiyeoba (2018) rightly put it further, ineffective learning also becomes a prominent suspect as scientific facts increasingly reveal that tertiary education graduates in Nigeria acquire skills in disciplines such as Economics, Law and Medicine that are neither demanded by the labour market nor required by the economy especially in the growth sectors such as petroleum, gas, agriculture, manufacturing, solid minerals, tourism and ICT (FME, 2025; Babalola, 2007a).

The Context of Planning and Educational Planning

Educational development and meaningful growth hardly take place without planning. Indeed, for a country to experience real growth and development, it requires a clearly defined development strategy. This strategy must allow for optimal or very intensive utilisation of resources, which she is endowed. This therefore, calls for deliberate, conscious efforts by the government to provide the environment conducive for development. It is very necessary however, for the government not only to set the goals and objectives but also to play an active role in undertaking some productive activities to achieve the set target (Adepoju, 2024).

Planning is said to be a key to management practice, without due consideration to planning at every stage of management, there will be no focus, occurrence of failure and inefficiency will pervade the system. It is a continuous process, which involves decision making for future course of action. To plan is to design in advance something to be done or action to be taken in future period.

Planning is an institutionalised mechanism through which an organisation (be it public or private) identifies and considers alternative policies, generate a consensus about appropriate action and provides legitimacy and establishing direction. Planning could be viewed as a systematic attempt to influence the future of an institution or system

Educational Planning can be defined as the process of putting into order and decisions now what we can or believe we can do in our future educational endeavour. It is a series of decisions taken now to the future action in education. It is the responsibility of the government or the management of the system to ensure that proper and adequate planning are made (Adepoju, 2024).

From the various definitions of planning and educational planning given above, Adepoju (2024) identifies four inbuilt elements or characteristics that are very obvious. These are:

1. **Orientation to the future:** Planning concerns itself with future but not with the present and the past.
2. **Orientation to Action:** Planning is action-packed, it does not occur by mere coincidence or by accident. Hence, it requires necessary action to be taken. In other words, there is willingness of one to perform certain action in the future.
3. **Optimization of the use of Resources:** Planning involves the use of the limited resources to achieve maximum output or profit such that the unlimited wants of the people could be satisfied.
4. **Orientation to Achieve Goals:** Planning involves goals or objectives to be set and the achievement of such goals or objectives in the future.

Why Planning for Higher Education?

Effective Planning is needed if the goals of higher education must be achieved. The following reasons could be adduced to planning efforts in higher education.

1. Effective planning prepares the country towards attaining the national objectives, needs and aspirations
2. It helps the country to be economically buoyant and industrial-inclined
3. It moves the country away from the tendencies of poverty
4. It helps the country to be internationally recognised
5. It helps the country to cope with the international challenges
6. It provides direction to higher education system

7. It ensures efficiency and realisation of higher education goals.

At the higher education level, Adepoju (2026) summed up the importance of planning thus;

1. It prepares the institution for changes in the environment and helps to limit the effect of the leadership cycle on the institution’s plan and programmes.
2. Prudent management of resources is encouraged and this will go a long way to see that the most effective use is made of the available resources by paying attention to keen priority areas.
3. Clear definition of the organisation’s (education) purpose, goals and objectives in view are sharpened.

Effective Planning of Higher Education, Industrial Revolution and Human Capital Development: The Meeting Point

Industrial revolution and human capital development implies that higher education systems should be effectively planned to focus on human capital development, on economic growth as well as poverty reduction, on modern technologies and should be entrepreneurial inclined to meet global challenges and competition. The implication of this scenario is that educational planners should ensure that higher education is strengthening in this direction. This will indeed have a positive and multiplier effects on industrial revolution and human capital development.

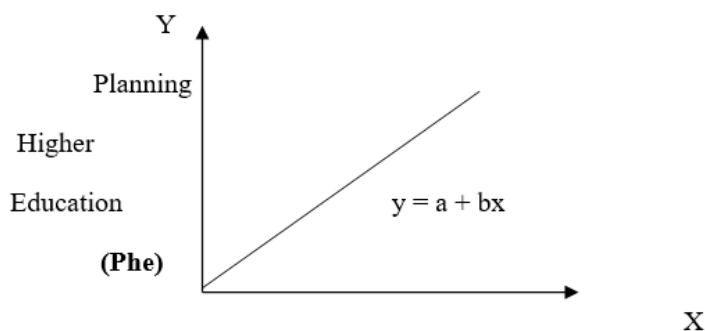
From the above argument, it could be expressed that effective planning of higher education is a key variable towards realising industrial revolution and human capital development using the functional notation in the equation below thus;

$$Ir, Hcd = f (Phe) \text{-----} 1$$

Where:

- Ir = Industrial revolution
- Hcd = Human capital development
- Phe = Planning of higher education
- f = functional notation

From equation 1, while 'Phe' is an independent variable, 'Ir and Hcd' are dependent variables. It could also be expressed in a linear curve thus;



Industrial Revolution (Ir) and Human Capital Development (Hcd)

Fig. 1: Planning of Higher Education, Industrial Revolution and Human Capital Development Correlation Curve

Figure 1 shows that a linear correlation exists between planning of higher education (Phe) and Industrial Revolution; and Human capital development (Ir, Hcd). In other words, the simple linear equation ($y = a + bx$) and curvilinear regression have shown that the more effective the planning of higher education is, the higher the level of industrial revolution and human capital development to be recorded in the country.

Status of Higher Education and Holders of Higher Education Degrees in Nigeria: A Critique

Nigerian higher education system has been characterised with seemingly insurmountable problems ranging from overshoot demand, poor performance, low level of graduate employability, labour-market mismatch, and institutional failure. All these are said to be offshoot of poor planning and poor funding of the higher education by the respective governments in Nigeria, which has led to low level of research activities, lack of good infrastructures, lack of necessary equipment and materials for laboratories and libraries, brain-drain and other associated problems. Stakeholders in Nigerian universities expect students to pass their examinations to score high on international, standardised or national examinations. They also expect a change in knowledge skills behaviour and attitudes. But the story goes beyond that stakeholders particularly parents want their children to have good jobs and be employable. The nation wants graduates who would turn around the political, economic and social problems of the country. While the job market expects employable graduates with good performance unfortunately, public and private employers of university graduates as well as government itself consider the quality of university graduates to be inadequate. As stated earlier, empirical evidences have shown that higher institutions' graduates are poorly trained and unproductive on the job and that they equally have shortcomings in oral and written communications. The situation is grave particularly, in the sciences (Dabalén, Oni & Adekola, 2000).

In terms of the performance of higher institutions' graduates on their jobs, it was by professional bodies, the following facts emerged;

1. 70.6% of respondents rated products of science and technology education in Nigeria with regard to contemporary challenges as average in terms of knowledge gained, 41.2% of professional bodies rated them as good, 58.8% rated them as average in terms of skills acquired.
2. Only 17.6% of professional bodies rated the performance on the job of graduates of science and technology as good. Most (64.7%) professional bodies rated the performance on the job of the graduates as average.
3. The professional bodies rated the percentage of graduates employed after graduation as below average, 47.1% considered the percentage of graduates employed immediately upon graduation to be below average, while 2.5% felt that the graduates employed after graduation were good. Only 11.8% considered them to be average.
4. In terms of self-expression, only 11.8% of professional bodies rated graduates of science and technology education as well, most (64.7%) rated them as average.
5. In terms of report writing skills about 53.0% of professional bodies rated the graduates as average (Dabalén, Oni & Adekola, 2000; NMB, 2016).

In terms of assessment of higher institutions' graduates by employers of labour on marketability the following facts also emerged;

Most employers of labour rated products of science and technology education in Nigeria with regard to contemporary challenges as average in terms of knowledge gained, 53.2% of employers of labour rated them as average. In terms of skills acquired, 42.6% of employers of labour rated the graduates as average in terms of skills acquired while some 34.0% rated them below average.

Only 14.9% of employers of labour rated the on-the-job performance of graduates of science and technology as good while 55.3% of employers of labour rated the performance on the job of the graduates as average (Dabalén, Oni & Adekola, 2000; NMB, 2016).

These facts and evidences corroborated the findings of Babalola (2007a), Adepoju & Fadokun (2026) that university graduates have not been prepared for labour market over years hence the need to re-design the curricular contents of higher institutions of learning in Nigeria. The available evidences provided above have indeed shown that the planning methodology been adopted in the past in relation to higher education curricular has not yielded the expected result of ensuring self-reliance, marketability/employability and relevance of holders of higher education degrees in Nigeria.

Table 4: University graduates required and employed by GSM providers; dealers and agents 2015.

| Discipline | Anticipated employment | | Actual employment | |
|----------------------------|------------------------|--------|-------------------|--------|
| | N | % | N | % |
| Administration/Accounting | 433 | 68.19 | 139 | 58.33 |
| Agriculture | 6 | 0.94 | 42 | 2.08 |
| Arts | 17 | 2.68 | 79 | 3.91 |
| Education | 14 | 2.20 | 82 | 4.06 |
| Engineering/Technology | 77 | 12.13 | 278 | 13.75 |
| Law | 2 | 0.32 | 37 | 1.83 |
| Medical and Pharmaceutical | 6 | 0.94 | 26 | 1.29 |
| Sciences | 12 | 1.89 | 77 | 3.81 |
| Social Sciences | 68 | 10.71 | 262 | 12.96 |
| Total | 635 | 100.00 | 2022 | 100.00 |

Sources: 1. National Manpower Board (2016)

Table 5: Polytechnic graduates required and employed by Global System of Mobile Communication (GSM) Providers, dealers

| Discipline | Anticipated employment | | Actual employment | |
|---------------------------------|------------------------|--------|-------------------|--------|
| | N | % | N | % |
| Environmental Studies | 2 | 1.18 | 41 | 9.62 |
| Computer and Science Technology | 25 | 14.71 | 170 | 31.91 |
| Food Science and Technology | 1 | 0.59 | 7 | 1.64 |
| Engineering and Technology | 82 | 48.24 | 5 | 1.17 |
| Business/Management | 31 | 18.24 | 105 | 24.65 |
| Accounting/Insurance/Finance | 22 | 12.94 | 83 | 19.48 |
| Secretarial Studies | 6 | 3.53 | 14 | 3.29 |
| Islamic and Legal Studies | 1 | 0.59 | 1426 | 0.23 |
| Total | 170 | 100.00 | | 100.00 |

Sources: 1. NMB (2016)

Table 6: High-level manpower needs in targeted sectors in 2020-2024

| Sector | High-Level Employees |
|----------------|----------------------|
| Petroleum | 3,900 |
| Gas | 5,250 |
| Agriculture | 15,250 |
| Manufacturing | 9,000 |
| Solid Minerals | 10,900 |
| Tourism | 6,700 |
| ICT | 4,899 |
| Total | 55,899 |

Sources: FME (2025)

Variables Inhibiting Effective Planning Strategies for Higher Education in Nigeria

Several attempts had been made in the past by governments in Nigeria towards evolving acceptable planning strategies for higher education. However, it is disheartening to note that most of the planning strategies have not yielded expected results or addressed the issues relating to industrial revolution and economic development. Some of the variables attributed to poor planning strategies are summarised here.

- i) Poor economy;
- ii) Political intolerance;
- iii) Constant change in educational policies;
- iv) Poor funding of higher educational institutions;
- v) Government interference;
- vi) High demand for higher education over supply;
- vii) Poor curriculum content;
- viii) Lack of adequate information on the part of planners;
- ix) Lack of clearly stated objectives;
- x) Wide gap between educational planners and decision makers;
- xi) Lack of continuity of plans due to political instability;
- xii) Lack of realistic plans; and
- xiii) Lack of consideration for the needs and aspirations of the society

These are variables associated with poor planning strategies in relation to higher education in Nigeria.

Emerging Issues

The following are the emerging issues relating to higher education in Nigeria. These issues, no doubt, have to do with planning Nigerian higher education towards industrial revolution and human capital development.

- i. Quality assurance of the system and its products – graduates
- ii. Efficiency and effectiveness of the system
- iii. Appropriateness of the mode of teaching and learning
- iv. Evaluation of research activities
- v. Funding
- vi. Standards
- vii. Quality and quantity of the teachers
- viii. Demand-supply gap (Access to higher education)
- ix. Monitoring and evaluation mechanisms adopted by agencies

- x. Implementation of educational programmes and plans
- xi. Benchmarking
- xii. Autonomy
- xiii. Disparities among the higher education components.

The issues highlighted above have dominated educational discussions at different higher education fora, summits and conferences in recent times in Nigeria.

Major Challenges facing Higher Education in Nigeria

Babalola (2007b) summed up the challenges of higher education in Nigeria thus;

Relevance of curriculum content and choice

The labour market is changing more rapidly than does the university curriculum in Nigeria. Curriculum analysis by Okebukola (2024) reveals that while the contents of the minimum standard course descriptions as laid down by the NUC for Nigerian universities agree well with course contents of universities in Britain, North America and South Africa, a gap exists in the implementation. Instead of implementing the NUC minimum standards, most of the courses offered in Nigerian universities, which were initially meant to develop people for the civil service systems are still in operation.

Quality of Teaching and Learning

Teaching and learning are the two twin-primary purposes of a university. These are jointly affected by the quantity, quality and utilisation of key inputs (such as trainees, teachers, time, technology, teaching content and textbooks) into the teaching learning process. While the enrolment increased over time, teaching and learning have been affected by incessant strike actions by academic, non-academic staff and university students between these periods. Thus, the time available for teaching and learning became disturbingly reduced; university teachers became unmotivated to teach, students became unmotivated to learn, classrooms and laboratories became non-conducive for educational activities and teaching contents became alarmingly reduced within the time available.

Administrative and Financial Autonomy

Most universities in Nigeria have not developed to international standards and the academic disciplines that will be vital for future economic growth and development are not there.

Campus crises, militancy and conflict management

Unionism is a fundamental right of every worker, yet unionised staff militancy over salary issues has been a major destabilising factor within the system in Nigeria. In similar vein, lots of disruptions have been witnessed through students' violence and campus cultism.

Finance

Nigerian governments have not been able to provide the financial resources necessary to maintain educational quality in the midst of enrolment expansion. By the end of the 1990s, university expenditure per student in Nigeria had fallen to \$360. In response, the government announced its decision in July 2000 to increase funding to \$970 per student and to encourage universities to generate an additional 10% of their recurrent budget from income-producing activities. The United Nations recommended 26% of country's annual budget to education but this has not been met by the federal government in Nigerian.

Cost Sharing, Poverty, and Political Costs

Cost sharing with students remains highly contentious within the Nigerian fragile democratic environment. According to Adepoju (2026), government contributed about 55% of the total cost of university education (comprising academic, administrative, building and equipment costs) while students contributed the remaining 45% of the total cost on items such as feeding, accommodation, transportation, photocopying, books, association and medical expenses in 2001/2002. While students and parents could consider the 45% share of cost by students as high, universities in South Africa have already achieved a situation where students contribute 66% of cost of university education (Okebukola, 2024)

Research and innovation:

Among the most profound changes in global economy is the growing importance of knowledge as a driver of growth. While funding of scientific researches can be obtained through different private and public sources. Governments, especially in the developed world, play a dominant role in funding university researches, which private sector ignore for lack of commercial value. Whereas, research grants to universities are on the increase elsewhere in the world, the flow of such funds has been impeded by certain procedural problems in Nigeria. The Nigerian government spent about 2 percent of annual university recurrent allocations on university research (Babalola, 2007b).

Excess demand by students for university education

Social pressures for expanded access are strong, with only about 13 percent of qualified candidates obtaining admission to university to study (Okebukola, 2024). The most favourable courses in the humanities are: law, accounting, and business administration; while education is the least favoured in humanities. In contrast to Law and Accounting that are more than 400% oversubscribed, on the average less than 30% of the universities meet their admission quota for education from first choice application (Babalola, 2007b; Okebukola, 2024).

Conditions for Effective Planning of Higher Education in Nigeria for Industrial Revolution and Human Capital Development

The following conditions should be considered for effective planning of higher education in Nigeria for industrial revolution and human capital development.

1. Need for the overhauling of the existing system where limited places are provided for prospective candidates
2. Need to build into the curriculum contents of all higher institutions, entrepreneurial education irrespective of the ownership. This will offer graduates with adequate training to be creative and self-reliance. It will also aid economic growth while their minds will be cultivated towards acquisition of skills to meet the manpower needs of the country
3. Government should stop lip-service to education particularly, higher education again
4. Adequate funds should be made available to higher educational institutions in the country so that the needed materials and equipment are made available and cutting edged researches are conducted.
5. Partnership between employers of labour and institutions should be encouraged
6. Higher institutions should be adequately monitored not to derail from their specific mandates
7. Private organisations in the country should be adequately and properly oriented towards sponsoring researches just as in the case of the developed world
8. Programmes and activities in higher institutions should be adequately designed with clearly stated objectives.

9. Policies and procedures for achieving the goals must be well established and defined in order to provide a framework for acceptance of responsibility
10. Each institution should be clear about its role, opportunities as well as its limitations
11. Institutions should be requested to concentrate on programmes where there have comparative advantage and to forgo areas where they are lacking
12. Expansion of higher institutions must be matched with plans for recruitment of more academic and non-academic staff-members.
13. Training of all categories of staff-members who are to make things work should be adopted
14. The usual gap between the planning and implementation should be closed rather than widening it. Although, it is very easy to make plans but implementation is usually difficult to carry out. Hence, the need to bridge the existing gap between planning and implementation. Those to implement the plans should always be involved or carried along always.
15. Government should expand higher educational institutions that are science and technological oriented.
16. In the same vein, government should always encourage and motivate prospective candidates to vigorously pursue vocational and technical education and sciences related discipline in higher institutions.

Principles Guiding the Planning Process of Higher Education.

The following principles should also guide the planning process of higher education.

- i. Examination of the vision and mission statements of each institution;
- ii. Environmental scanning should follow clearly defined and identified vision and mission. This involves the SWOT analysis;
- iii. Analysis of the existing gap by considering the present stage and the direction desires to be;
- iv. Consideration of emergent strategies in case of new development;
- v. Implementation; and
- vi. Periodic review and evaluation of strategy.

Adepoju (2026) recommended that curricular contents and contexts of the higher education in Nigeria should be re-designed and planned towards making higher education more proactive and pragmatic and to reflect the needs and aspirations of the society.

CONCLUSION AND RECOMMENDATIONS

Higher education, no doubt has a role to play in the transformation of a country into world-class industrialised and economically viable country. The new world of globalisation, ICT and competition has also made higher education more relevant. If a country is to be worldly recognised today, her higher education must be adequately planned for such that the needs and aspirations of the country could be accomplished. Available evidences have shown that Nigeria, with the highest number of higher institutions in the Sub-Saharan Africa has not successfully mobilised her higher educational institutions to transform the country into a world-class industrialised and economically viable country. The need to overhaul the existing higher education is highly desirable to allow global competitiveness and best practices.

Reduction in the funding of higher education could prevent tertiary education from achieving industrial revolution, human capital development and rapid economic growth. For this reason, the need for the federal government to adequately finance higher education is very imperative. The United Nations' recommendation of 26% share of the annual budget to education sector has not been met in Nigeria and this has been a militating factor. Good as other initiatives of government are, but, if these initiatives are not supported with adequate funding, the initiative cannot achieve the desire objectives (Adepoju, 2026).

According to Babalola & Jaiyeoba (2008), the federal government in 2004 identified curriculum renewal as one of the issues that should become an element of national strategy for the development of higher education in the country (FME, 2024). This is because government is aware of the need to make the higher institutions' curricular more relevant. Graduates of Nigeria's institutions should also be prepared such that their programmes would be practical oriented in line with the demand of the labour market.

Repackaging and repositioning higher institutions and their programmes is highly desirable, this will correct the observed labour market mismatch. Higher institutions should provide researcher-based labour market and career information to prospective students and their parents through publications, seminars, workshops and other informative advertisement (Babalola, 2007a).

The National Manpower Board (NMB) and the National Directorate of Employment (NDE) should be re-invigorated to function efficiently. The two agencies should continue to produce and keep under review, a compendium of skills and competencies required at each level of manpower production in the national education system (FME,2024).

Since research findings and evidences (Adepoju & Okotoni, 2018; Adepoju & Odunitan, 2018) have shown that a link exists between higher education and the labour market, entrepreneurial education should also be introduced at the tertiary level of education particularly in public ones to eliminate or reduce unemployment rate in the country.

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