

THE MISSING LINK: FROM INDUSTRY KNOWLEDGE TO PRODUCTIVE IMPLEMENTATION

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The transformation of Nigerian universities should go beyond moving students from theoretical knowledge to practical skills. The more fundamental challenge is to create a pathway from industry knowledge to practical implementation, productive enterprise and large-scale adoption. A student may possess technical competence, develop a prototype and even acquire entrepreneurial knowledge, yet the innovation may never generate meaningful economic value if the surrounding ecosystem cannot support production, financing, certification, commercialisation, market access and expansion.

Nigeria's educational challenge must therefore be understood as part of a wider productivity problem. The central question should not merely be whether universities are producing skilled graduates, but whether the entire educational and economic system enables those graduates to transform their skills into goods, services, technologies, businesses and measurable improvements in national productivity.

This distinction is important because Nigeria does not primarily need more entrepreneurship centres, innovation offices, empowerment agencies or business-support institutions in name. What it requires is a functional entrepreneurial and productive ecosystem. Too many institutions risk becoming administrative structures or portfolio establishments whose existence is demonstrated through programmes, workshops, certificates and annual reports rather than through enterprises created, products commercialised, businesses expanded, employment generated and industries strengthened.

A genuine entrepreneurial ecosystem must connect the university with industry, finance, government, markets, technology providers, investors, regulatory institutions, research organisations and consumers. The pathway should therefore extend beyond:

Knowledge → Skills → Entrepreneurship

to a much deeper productive chain:

Industry Knowledge → Problem Identification → Practical Development → Prototype → Production → Financing → Market Adoption → Enterprise Growth → Employment → Productivity.

This should become the framework through which educational reform is assessed.

Industry participation is particularly important at the beginning of this process. Universities should not merely teach students practical skills and subsequently introduce them to industry. Industry knowledge should increasingly influence what is taught, what problems students investigate, what technologies they use and what competencies they acquire. Employers, manufacturers,

entrepreneurs, technology firms and professional organisations should regularly identify production bottlenecks, emerging technologies, skill shortages and market opportunities that universities can translate into teaching, research and student innovation.

The difference is significant. An engineering student should not merely learn how a machine operates. The student should understand the production problems confronting Nigerian industries and participate in developing locally adaptable solutions. An agricultural science student should not simply understand crop production theoretically, but should be exposed to the entire agricultural value chain, including processing, preservation, logistics, packaging, financing and market access. A computer science student should not merely learn software development but should be capable of identifying operational problems in agriculture, banking, healthcare, logistics, government and manufacturing and designing scalable digital solutions around them.

The same principle should apply across the humanities and social sciences. Productivity is not confined to manufacturing. Policy analysts can improve the productivity of government institutions. Communication specialists can strengthen the creative and digital economy. Economists can develop market and policy solutions. Historians can contribute to cultural tourism and heritage enterprises. Lawyers can support intellectual property, commercial transactions and emerging technology regulation. What matters is whether disciplinary knowledge is connected to identifiable economic and social value.

POLICIES MUST BE TIED TO PRODUCTIVITY

Educational policy should therefore be evaluated increasingly through its contribution to productivity. Nigeria has historically produced numerous policies, programmes and institutions, but institutional activity should not be confused with developmental achievement. The success of a policy should not primarily be measured by how many people were trained, how many centres were established or how much money was allocated. It should be measured by what additional productive capacity resulted from the intervention.

For example, where government establishes an entrepreneurship programme, the important indicators should include the number of viable enterprises created, enterprise survival rates, productivity growth, revenue generated, employment created, technologies adopted, products reaching the market and businesses successfully scaling beyond their initial stage.

Universities should be evaluated in a similar manner. Beyond enrolment, graduation rates and publications, the system should increasingly ask:

How many locally relevant technologies were developed?

How many innovations were adopted by industry?

How many student and graduate businesses survived beyond three or five years?

How many products reached commercial markets?

How many existing businesses became more productive because of university research?

How many jobs were generated?

How much additional economic value was created?

These are productivity questions, and they should become central to the assessment of universities and public interventions.

CURRICULUM REFORM MUST BEGIN WITH PRODUCTIVITY PROBLEMS

The Nigerian curriculum should consequently be designed partly around the question: What is preventing Nigeria from becoming more productive?

The answer will vary across sectors. Agriculture faces productivity constraints relating to mechanisation, storage, processing, inputs, logistics and market access. Manufacturing confronts energy, technology, financing, imported inputs, maintenance and production-efficiency challenges. Healthcare requires locally adaptable technologies, pharmaceutical capacity, digital systems and stronger service delivery. The public sector faces institutional efficiency and digitalisation challenges. The creative sector requires improved intellectual-property systems, financing, distribution technologies and global market penetration.

Universities should map these problems systematically and align appropriate elements of curricula, student projects and research activities with them.

The institutional component of the CCMAS framework therefore offers an opportunity not simply for universities to introduce additional courses, but to develop Productivity and Industry Transformation Pathways appropriate to their location, disciplinary strengths and surrounding economy.

A university located within an agricultural region should be deeply connected to agricultural productivity and agro-processing.

A university surrounded by manufacturing clusters should establish strong manufacturing, automation, materials, logistics and industrial-management partnerships.

Universities in regions with significant solid-mineral resources should develop capabilities around geological exploration, mineral processing, environmental management and mining technologies.

Institutions located within major digital and commercial centres should connect students with fintech, artificial intelligence, logistics, e-commerce and digital-enterprise ecosystems.

In this way, the university becomes embedded within the productive structure of its environment rather than functioning as an isolated academic institution.

FROM ENTREPRENEURSHIP CENTRES TO ENTREPRENEURIAL ECOSYSTEMS

Nigeria must also distinguish between an entrepreneurship centre and an entrepreneurial ecosystem.

A centre is a building or administrative unit.

An ecosystem is a functioning network.

It connects:

University + Industry + Government + Finance + Investors + Technology + Research + Markets
+ Regulation + Infrastructure + Entrepreneurs.

Without these connections, universities may continue producing business plans and prototypes that never become sustainable enterprises.

Students therefore require more than entrepreneurship lectures. They need opportunities to work with established businesses, manufacturers, investors and customers. They need access to laboratories, production facilities, certification systems, intellectual-property support, procurement opportunities, financing mechanisms and markets. They need mentorship from individuals who have actually built enterprises within the sectors they seek to enter.

Most importantly, successful student enterprises should not be abandoned immediately after graduation. Incubation should be followed by acceleration, financing and market integration. The objective should not merely be to create start-ups, but to build productive firms capable of surviving, employing people, paying taxes, exporting products and solving Nigerian problems.

PRODUCTIVITY SHOULD BECOME THE UNIFYING NATIONAL OBJECTIVE

Ultimately, Nigeria's unemployment challenge, educational challenge, industrial challenge and entrepreneurship challenge intersect around one central issue: productivity.

A country does not become prosperous simply because more citizens possess certificates. It becomes prosperous when knowledge, labour, technology, capital and institutions are organised in ways that continuously produce greater economic and social value.

The reform question should therefore move beyond:

What should students know?

and beyond:

What practical skills should students acquire?

Nigeria must increasingly ask:

What should Nigerians be able to produce with what they know?

What national problems should their education enable them to solve?

What industries should their knowledge strengthen?

What enterprises should emerge from their capabilities?

How will those enterprises reach markets and scale?

And how much additional productivity will ultimately result?

Until curriculum reform, industrial policy, entrepreneurship policy, research funding and university assessment are connected to these questions, Nigeria risks continuing to produce educational reforms without achieving the corresponding economic transformation.

The ultimate objective of educational reform should therefore not simply be employability or entrepreneurship. It should be productive capability: the ability of individuals, enterprises and institutions to transform knowledge into goods, services, technologies, solutions, employment and sustainable national wealth.

IN SUPPORT TO A WRITE-UP ON :A National Transformation Agenda for Nigerian Universities

Moving Nigeria's Universities from the Production of Job Seekers to the Production of Skill-Equipped Entrepreneurs, Innovators, Employers and Wealth Creators, By Prof Abiodun Ojo.