55TH UNILAG CONVOCATION LECTURE - "UNIVERSITIES AS HUBS FOR DEVELOPMENT AND WEALTH CREATION"

BY

DR OLUWATAYO DAVID ADULOJU

CHIEF EXECUTIVE OFFICER
NIGERIAN ECONOMIC SUMMIT GROUP (NESG)

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Order of Protocol

The Visitor,
The Honourable Minister of Education,
The Executive Secretary, the National Universities Commission,
The Chancellor,
The Pro-Chancellor,
The Vice-Chancellor,
The Chairman of the Convocation Lecture,
The Deputy Vice-Chancellor (Development Services),
The Deputy Vice-Chancellor (Management Services),
The Deputy Vice-Chancellor (Academics and Research),
The Registrar,
The Bursar,
The University Librarian,
The Provost, College of Medicine,
The Chairman, Convocation Ceremonies Committee
The Deans of Faculty,
Members of the University Senate,
Distinguished Academic and Professional Colleagues,
Captains of Industry,
Your Lordships (Spiritual and Temporal),
Distinguished Guests,
Members of The Fourth State of The Realm (our media community),
Ladies and Gentlemen,

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Introduction

As I considered the invitation to give the 2025 Convocation Lecture, I recalled my early training as a seminarian. This made me reflect on the purpose and meaning of the convocation. Originally, convocation referred to a gathering of church officials in the early days of the Church of England. The Convocations of Canterbury and York were meetings for these church leaders until the Church Assembly was formed in 1920. However, Oxford University was the first to use the word "convocation" in 1577 to describe a gathering of its graduates. Today, convocation ceremonies are held worldwide to welcome students into the scholarly community. The term "convocation" comes from the Latin word "convocare," which means "to call together." It is also rooted in the Greek word κκλησία (ekklēsia), meaning an assembly. Whether for church or academia, the tradition of the convocation lecture carries the critical responsibility of sharing the significance and dedication of the diverse members involved.

The University of Lagos, with its rich history and commitment to academic excellence, stands as a beacon of hope and inspiration for the future of our nation. This convocation lecture is an important and respected event, and I genuinely value being invited to speak here. The University of Lagos Convocation Lecture, with its rich history dating back to the 50th Lecture, has been a key opportunity to share important ideas during this special occasion. It has served as a platform to present innovative thoughts and projects that have shaped the direction of the University of Lagos. I am thankful for this opportunity and honoured to deliver the University of Lagos 55th Convocation Lecture. The Spirit of Convocation embodies the ability to significantly contribute to scholarship and inspire reflections among the community's diverse members. This spirit is relevant, contextual, catalytic, evaluative, and prescriptive, often appearing almost prophetic in envisioning future eras of achievement and advancement within universities. My reflections on the Spirit of UNILAG Convocation since the 50th Lecture reflect a decisive, strategic posture of the institution to shape the ideas, ideals and ideology that will form the intellectual bases for the transformation of the University while at the same inspiring the scholars that convocated into the order of the intellectual elite to commit to the transformative power of knowledge to shape the advancement of society and national development.

The 52nd Convocation Lecture delivered by the then Speaker of the House of Representatives, Federal Republic of Nigeria, Hon. Femi Gbajabiamila, now the Chief of Staff to the President, was a tour de force into Building Back Better: Creating a New Framework for Tertiary Education in Nigeria in the 21st Century—the Rt. Hon Gbajabiamila provides us with a Proposed New Framework for Financing Education, Critical Pedagogical Transformation in the Era of Extra-University Systems Centres of Learning and Innovation and challenged us to use the uncertainty, volatility and instability created by the COVID pandemic to find the positive deviance for radical changes and challenged the University System to recommend bold systematic regulatory, policy and legislative change that the era of disruption required.

At the 53rd Convocation Lecture, during phenomenal celebration of 60th Anniversary of UNILAG and the first of our current Vice-Chancellor, Lecture explored finding the boundaries of the possible, venturing beyond, delivered by my friend and brother, Mr. Chinenye Mba-Uzoukwu, Managing Partner, Grand Central Africa and

Mr. Fola Adeola, Founder & Chairman, FATE Foundation & Co-founder, Guaranty Trust Bank. Chineye reminded us that the constraints of the current University System are grossly unable to deliver higher education at scale to match the kind of gross enrollments achieved by developing countries that emerged as middle-power countries in the last few decades; he offered critical technologically enabled pedagogical transformations to deliver high-impact higher education at scale. Chair Fola Adeola reminded us that UNILAG FIRM (Finance, Infrastructure, Research and Manpower) Strategic Focus was required to find and exceed the boundaries of the possible. Chineye remains that the Nigerian Scholar anywhere in the world is formidable because, despite the constraints of capabilities in learning, research, teaching and practice – once placed at par with our global peers, our competitiveness becomes self-evident and warned against the intellectual decline due to growing scourge of pervasive mediocrity.

The 54th Convocation lecture on Decolonizing African Higher Education for Transformational Development was delivered by Prof. Toyin Falola (Professor of History) at the University of Texas. He argues that African Leadership played a critical role in the transformations of every phase of human development, and historiographic records show that it consistently created capacities and capabilities that contributed to every industrial revolution, but mostly never for its benefit. Prof Falola warned us that the "Weapon of Definitions" has played a role in the underwhelming articulation of the Historiography of African Transformations; he challenged us to a project of

a more robust African university recapture of the African role in the Shaping Other Civilisations as essentially our role in development and that in owning that narrative we close the developmental puzzle loop in how we tackle the post-colonial intellectual lock jam that is brought to current conversations about Africa's development and noted this is a role of University. This is the Spirit of the UNILAG Convocation: These seeds of strategic hindsight, insight, and foresight will mobilise this body of scholars and the Nigerian Society to pursue the Arc of Possibilities.

So, in shaping this paper, I also hope to attempt to answer some questions posed in their documents and did not answer. Of course, I, too, will raise questions I will not answer – This is the essence and spirit of the convocation of scholars.

At this point, I would like the Chairperson to note that while I am not an academic in the strictest sense, I am a scholar in Administration with three decades of experience studying and practising strategy, public policy,

and economic competitiveness. Thus, the person before you today is a Scholar-Practitioner; the professional construct has guided my work across the Private, Public, Civil Society, and Development sectors in 15 nations, primarily in Africa and the Middle East. Having been shaped by the systematic philosophy of theology in my late teenage years, I typically approach problems from a critical realist perspective. Of course, I acknowledge my approach's inherent flaws and biases as part of my human difference from others, with its attendant idiosyncrasies. The Scholar-Practitioner Model is a modern construct of the Platonian Model of the Science of Inquiry, Where in Plato Statesman, the Stranger noted that Science can be divided into two arts: one practical (praktikos) and the purely intellectual (gnostikos): the theoretical and the experiential, the conceptual and the pragmatic. Therefore, I wish to apply this critical realist perspective to the topic at hand: the exploration of universities as hubs for development and wealth creation – and to do justice to both the theoretical and experiential dimensions of the subject.

The Potential of Universities as Hubs of Development and Wealth Creation is Self-evident. Still, as with many things in development, the mere fact that something makes common sense does not automatically make it easy to achieve, nor does it guarantee such an idea will have universal support. So, we assume hypothetically that Universities ought to be Hubs of Development and Wealth Creation, and then the burden of proof is on us to demonstrate that this is indeed the case. The university's origins as a community of educators and scholars date back to the first European universities founded by Catholic monks. These institutions were recognised as significant degree-granting entities, using "universitas" from the start. They were independent of ecclesiastical schools and offered secular and religious degrees, with clergy and lay teachers instruction in grammar, rhetoric, logic, and law.

It is nearly impossible to discuss the progress of humanity and the continuous advancement of society without considering the development of human knowledge. This process of gaining knowledge is crucial to our evolution as a species. The link between our shared learning and national advancement should be obvious, widely acknowledged, and not require deep justification or thought. As a result, our universities, which are responsible for delivering both general and specialised knowledge, should play a key role in shaping the values and beliefs that influence the growth of individuals across all countries. However, this commonly accepted notion often fails to capture the actual effect of learning and knowledge on human advancement in Nigeria—particularly regarding the university system and the diverse levels of expertise it can offer. The divide between towns and gown limits universities' potential as centers for development and wealth generation, this is a well-established fact. As Nelson Mandela said, "Education is the most powerful weapon which you can use to change the world" (Ratcliffe, S. (Ed.), 2011).

Consequently, what we individually attain in terms of the highest academic achievement is significant, but more important is the computational, collective, accumulated knowledge of society to solve its problems. In his groundbreaking thesis on the order and evolution of knowledge, César Hidalgo argues in "Why information grows: The evolution of order, from atoms to economies" that the fundamental goal of education is to optimise the person byte of the individual. He describes it as "the maximum knowledge and know-how carrying capacity of a human." However, he argues that the ultimate goal of development is to convert person bytes into institutional bytes and networks of knowledge and know-how that create complex economic, political and social institutions. Consequently, education for development and national wealth creation is about raising the computational capacity of society to leverage its individual bytes to produce more advanced products and services in the markets and efficiently and effectively deliver public services in government.

Hidalgo notes that when a society has the computational capacity to create a set of specific complex products, we call that computational technology. Countries that did not directly participate in the first and second industrial revolutions were initially classified as Third World Nations. A country could have all the natural resources required to produce complex products and services, but if that nation lacked the institutional bytes and networks of knowledge and know-how, it is termed underdeveloped as it fundamentally lacks the technology to transform its rich endowments into

wealth. Consequently, when a nation resolves to pursue expansion of its national wealth, it must inevitably expand the computational capacity of members of its society (person bytes, firm bytes and networks of knowledge) or it must attract by migration or investment promotion new members of society from other countries that have already built computational capacity to produce more complex products and services. This is why a particular race began in Asia and Latin America to acquire the 1st and 2nd Industrial Revolution technologies. Their almost militant participation in the 3rd Industrial Revolution was followed by their aggressive insistence on competing in the 4th Industrial Revolution. This is an essential point of redefinition of how wealth is created. It aligns well with Prof Falola's argument at the 54th Convocation Lecture. Nigerian capital (human and natural) was extracted overseas for almost 200 years by nations that added our capital to the computational capacity of their societies to create wealth. This fundamental posture of colonial influence created an Extractive Nature of Colonial and Post-Colonial Institutions. Unfortunately, empirical evidence, including studies conducted by the recipients of the 2024 Nobel Prize Economics, shows that to this very day, the DNA of these Extractive Institutions continue to shape the rent-seeking culture of post-colonial states long after their independence, including Nigeria. Based on Hidalgo's definition, Nigeria is a richly endowed country that lacks the computational capacity to convert its human and natural resources into wealth. This is because the configuration of our institutions is infected with the "extractive" and "rent-seeking" strain of post-colonial value and culture.

O'Brien, P. K. (1997) argues that between 1900 and 2000, Third World Nations that developed the computational capacity to transform their human and natural capital into wealth and leverage the global trade system to import technology, expert know-how, foreign capital increased their wealth creation capacity and started to prosper. The prominent role of the University System in coordinating and embedding this computational capacity was a key success factor. He noted:
The global economy impinged upon the relative rates of growth achieved by national, regional, and local economies basically through commodity trade, the migration of labour, flows of capital, and transfers of technology between the developed continents of Europe, North America, and Australasia, on the one hand, and the less developed continents of Asia, Africa, and South America (the Third World) on the other. Despite the marked inequality in the distribution of income across continents, Third World economies and populations derived significant benefits from participation in the global economy until 1914, and the breakdown of the liberal order imposed serious impediments to trade during the era of neo-mercantilism between 1914 and 1950, which severely constrained Third World opportunities for growth through trade. When a new international economic order emerged with decolonisation and the rise of American hegemony, the Third World again found it entirely beneficial to participate in global commerce. (p.75).
O'Brien argues that this century of tremendous global economic and political change was suitable for Third World Countries. However, the evidence in the literature sets several preconditions for positive participation and the competitiveness of the third world in the post-decolonization era. In this regard, Nelson Mandela's reference to Education as the Most Powerful Weapon to Change the World finds a deeper developmental meaning. The evidence shows that it is the nations that assumed this militant posture of education as a weapon to change their institutions (economic, political and social), their societies and the overall maximum knowledge and know-how carrying capacity of their societies – that entered the segment of middle power countries and that encountered different variants of economic miracles.

In recent times, as Okun Economic Fellow for Africa and the Middle East, we have observed the same strategic transformations of universities as a key driver of expanding the computational capacity of a society to create wealth. Notably are:

- The Emirati Socioeconomic Reconstruction in the UAE
- The Saudi, Bahrain and Qatar Economic Transformation Projects
- North African Socioeconomic Reconstruction in Egypt and Morroco

Therefore, this fundamental broad understanding of the utility of knowledge as a tool for developing and optimising human potential remains a fundamental pursuit of educational institutions, which is our preoccupation. Hence, the lecture explores the question of the utility of knowledge, primarily as it addresses the

aspirations and motivations of society's members and the university's role as the centre of that knowledge transformation that provides practical solutions to the formidable challenges of the nation.

Crow M, President of Arizona State University, noted in his discourse on education as a national development centre, "Learning is for everyone. Suppose we can help universities produce more master learners dedicated to the breadth and betterment of our society and democracy. In that case, we will have had a major impact on humanity's outcome."

This lecture is divided into six parts, each spanning the broad concepts surrounding the idea of universities as hubs of development and wealth creation within the concept of the utility of knowledge as a driver of the advancement of human societies.

1. The first is the attempt to define development and its scope of application,
2. the second is the attempt to define the key motivations of development that might relate to the evolution of the university systems,
3. third is to provide a concept of wealth creation within the context of sovereign wealth,
4. the fourth is to interrogate the type of education system and educational institutions that can prosecute the hub development of both development and wealth creation,
5. The fifth is to look at where we are as a country and the people in Nigeria.
6. The sixth is to offer propositions based on global best practices regarding where we might go to create these educational hubs for development and wealth creation.

Development Definition and Scope of Application

- The State of Moving from Underdevelopment towards Development
- The State of Movement Towards Freedom
- The Process of Transformation from National Institutions into a Modern State

Development Definition and Scope of Application

The Fields of Political Science, Political Economics, Development Economics, and International Development have continued to grapple with what we might call the "Development Puzzle." Over 60 years ago, the proliferation of National Independence through a Democratic Election signalled the end of the Colonial and Imperial Order that had reshaped most of the Developing World and Africa, especially for two centuries. Six decades later, Africa and the curious case of the Nigerian state, which has had a significant struggle with achieving development at par with its Asian Pairs, continue to puzzle politicians, economists, citizens, and the international development industry. The broad definitions of national development could apply because we should at least interrogate the Nigerian experience.

The State of Moving from Underdevelopment towards Development

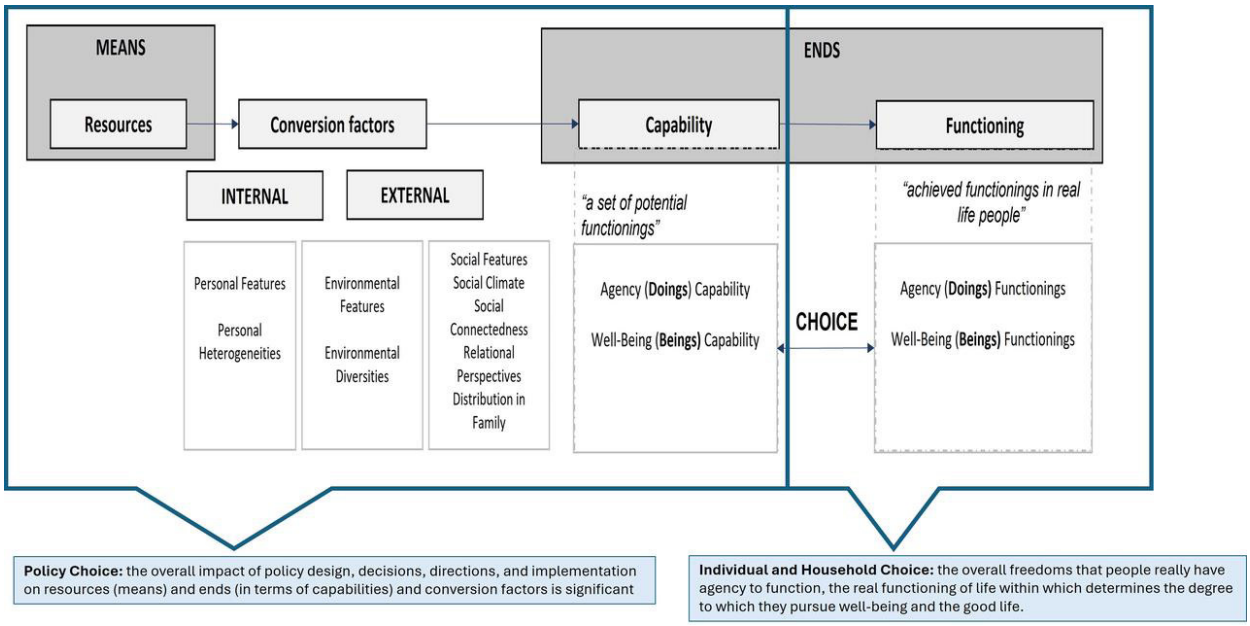
Development was also born in the context of the Cold War. For President Truman, the American way of life was a democratic and egalitarian ideal to overcome the communist "threat" by closing the gap between industrial and "underdeveloped" countries. However, by 1980, it was already clear that there was no correlation between aid and economic growth and that aid was an obstacle to social transformation. Since Truman, development has connoted at least one thing: to escape from the vague, indefinable, and undignified condition known as underdevelopment.

However, the Age of Development—the historical period formally inaugurated in 1949—is now ending. The future of development studies lies in archaeology and histography, which will explore the ruins it left behind by examining development's prehistory, conceptual history, and enterprise. Since the 1970s, new campaigns have focused on getting the underdeveloped, at least fulfilling their "basic needs." Meanwhile, the economists construed the "law of scarcity" to denote the technical assumption that man's wants are vast and infinite, whereas his means are limited though improvable. Poverty and development thus go hand in hand. Indeed, historical experience reveals that development generates poverty. By 1985, the idea of post-development has already emerged. However, everyone agrees that it is a national process through which an underdeveloped state becomes a developed state through the transformation of national institutions (political, economic, social and educational) that, in turn, transforms society into a modern, competitive, peaceful, stable and prosperous state.

The State of Movement Towards Freedom

According to Amartya Sen, this state of Development we can call "Freedom". Sen's work was essential in resetting the post-decolonization paradigms on what freedom should mean, from the concept of liberation from colonial masters and independence to the idea of a democratic developmental state. The capability theory developed by Sen (1976, 1977, 1999a, 1999b) made two normative claims: the freedom to achieve well-being is of primary moral importance, and the freedom to achieve well-being must be understood in terms of people with capabilities and that both claims are the essence of the experience of development at the individual level. This is the premise for understanding people's experiences living in poverty and determining the policy choices required to address them.

Scheme of Sen Capability Theory



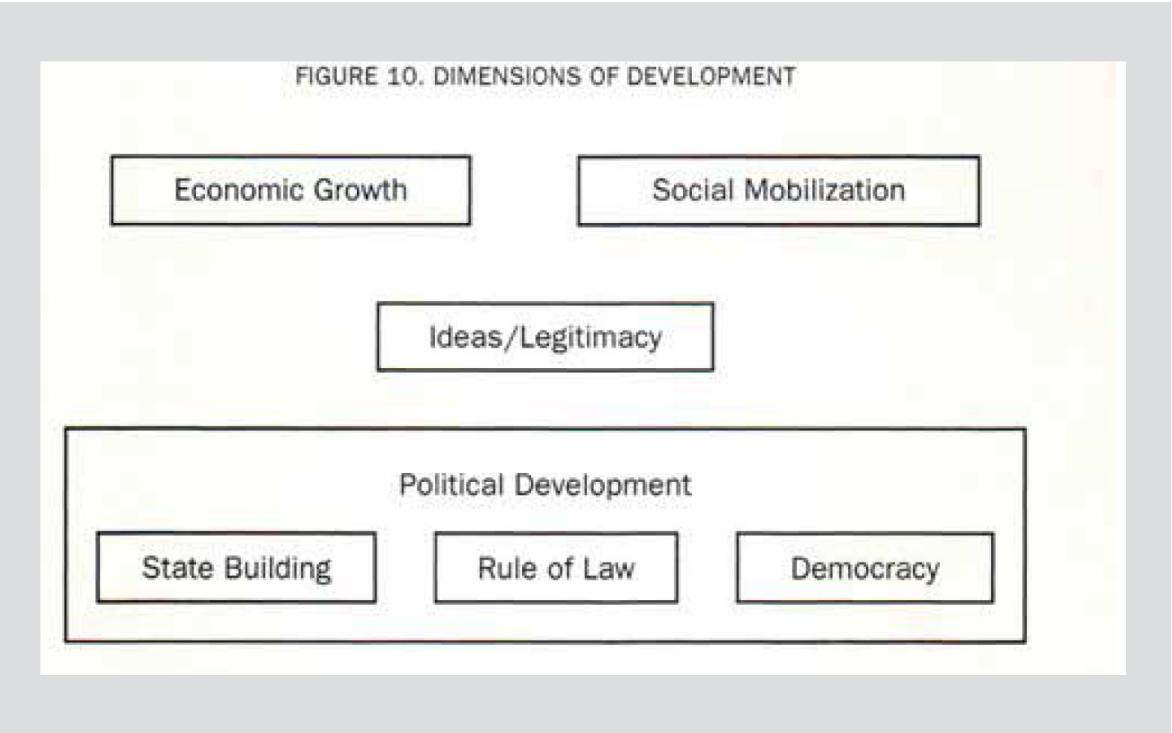
Note. Adapted from "The Capability Approach: A Theoretical Survey" by I. Robeyns, 2005, Journal of Human Development, 6(1), 93–114. https://doi.org/10.1080/14649880520003426. Copyright 2005 by Carfax Publishing Company.

He argued that people's freedoms and personal agency are critical to our understanding of poverty and how to alleviate it: The resources available to them, the capabilities to utilise those resources, the functioning and beings through which they exercise their freedom and control of those capabilities and opportunities and the utility it gives each individual to be free from different forms of deprivation are the critical characteristics of knowledge that may equip us with the tools to alleviate poverty in all its dimensions. Consequently, Sen argues that you cannot prosecute a development-less economic growth programme and call it development; you cannot claim that GDP growth is the development of the social determinants of well-being when the capabilities it confers on people are absent. Hence, the diverse functions and beings of development make its achievement a multidimensional and multifaceted pursuit for national leaders and the societies they lead.

The Process of Transformation from National Institutions into a Modern State

Fukuyama, F. (2020) The Fukuyama Model of Development points views development as the evolution of institutions that deliver specific public and economic goods and services within a particular society; it posits that the evolution of primitive banned tribal states to nation-states forged by strong military and their transformation into modern states that have well developed political social and economic institutions is a process and that it depends of the emergence of a set of institutional characteristics.

Fukuyama (2020) Dimensions of Development



1. The Political Development Process determines the strength and stability of the State. This can be measured by good governance, peace, security, law and order

2. The Economic Development Process determines the Size and Depth of the GDP of the State. According to the Africa Centre for Economic Transformation, the proper definition of economic progress is Growth Size with DEPTH. The acronym DEPTH means Diversification of production, products and product capabilities; Export Competitiveness – becoming more competitive in global markets; productivity – increasing the productivity of individuals, firms, governments, local value chains, industries and markets; technology upgrades – aggressive upgrade technology know-how across the economy, and Human Wellbeing.

3. The Social Development Process determines the GDP per Capita and Standard of Living.
Political development refers to transforming societies characterised by banded tribal states into ethnic nations, kingdoms and empires into modern states that operate under the rule of law. This process involves establishing a professional and impersonal civil service, suppressing military dominance and the monopoly of violence, and establishing institutions that regulate the use of political power by the one, by the few, or by the many. Forming law-making and law-interpreting bodies is crucial to prevent the misuse of legal power. Central to this development are key political institutions, which include state entities equipped with military authority to maintain order within the bounds of the law, alongside administrative capacities that foster professional civil service. Furthermore, rule of law institutions are essential for ensuring that all segments of society are held accountable under the law. Lastly, accountability institutions play a vital role in maintaining checks and balances to oversee political power effectively, ensuring governance serves the interests of all citizens through accountable electoral processes. While democratic accountability through electoral cycles is critical, it is essential to note that not all developmental outcomes require democracy. For example,

1. Most Middle Eastern Socioeconomic Reconstruction is not a movement towards democracy but towards higher levels of socioeconomic inclusion. In their case, Political Stability, through the autocratic capacity

of government, has been used to build disciplined economic institutions that promote economic growth and drive social mobilisation.

2. China's economic growth is premised on a 2000-year-old meritocratic civil service that assumed transformational power once accountability institutions developed over the last 50 years gained ascendency over society. In this case, a strong state (though not democratic), with a strong military, civil service, governing political party with a dominant political ideology and development philosophy and the ruling elite that has a radically efficient accountability institutional framework, is implementing an unbroken 100-year development agenda in which China dominates the world order. The problem of the Chinese model is the challenge of the evil emperor.
3. Nevertheless, Fukuyama (2015), in his book The End of History, notes that if the history of humans is anything to go by, the movement of the world towards democratic ideals and democracy has done more to move the world into an era of relative peace, security, and prosperity, when compared to other political systems at an aggregate level.

Fukuyama (2004), in The Imperative of State-building, argues that underdeveloped countries must pursue a development pathway that matches their history. Nations like the United States are unique because the US Constitution and Declaration of Independence were forged by Knowledge and Ideas Institutions and used to shape their Political Institutions. A review of Dietze, G. (1999) compilation of the US Federalist Papers reveals the extent to which the US Knowledge and Ideology Institutions invested in shaping Political, Economic and Social Institutions. Their primary focus in terms of political institutions was:

1. Build a strong state while solving the concentration of power that inevitably creates a tyrannical autocratic rule.
2. So they created the militia and citizens' military
3. They create three arms of government (legislative, judicial and executive) to check political powers and tyrannical tendencies.
4. They create a federal and state balance of powers to check central control and unitary tendencies of the federal government.They create economic institutions to allow free markets, free enterprise and property and human rights to exist (the basis of its Civil War).

Economic development is fundamentally about transforming society through the collective knowledge, skills, and resources possessed by its people. This transformation allows communities to harness their sovereign wealth and natural resources, turning them into valuable goods and services that can be traded. This exchange enriches society and is vital in determining its productivity and competitiveness. Ultimately, how economic value is created and exchanged impacts the community's ability to redistribute wealth among its members, providing a tangible measure of their overall well-being and quality of life? At the heart of this economic development are key institutions that facilitate growth. These economic growth institutions are essential in establishing a framework where taxation and rules-based markets operate effectively. They ensure that trade is efficient and value is created consistently, enabling the seamless transmission of wealth throughout society. Moreover, they are crucial for equitable economic value distribution and redistribution, fostering a balanced and thriving economic environment for all citizens.

The Social Development Process refers to the mechanism through which society evolves its members, facilitating their progression from lower levels of achievement to higher ones. This transformation is guided by a Social Contract that promotes mobility and safeguards the vulnerable, fostering social cohesion, unity, trust, and a sense of collective ownership grounded in shared values and principles that contribute to a common societal vision and mission. Social Mobilisation Institutions are crucial in establishing a robust civil society that upholds the universal rights of individuals and enterprises. These institutions organise society into classes that strive for social and economic justice ideals.

The Ideas-Knowledge-Legitimacy Development Process is how society learns from itself to improve its political, economic, and social institutions. This process helps societies accumulate knowledge and compete to organise themselves better. It also affects how well a society uses, creates, acquires, and shares technology during

its technological transformation. Key institutions related to ideas, knowledge, and legitimacy include educational, media, and research institutions. These institutions help ensure that discussions shape the ideological basis of national institutions in a clear, relevant, and consistent way with the state's nature.

Levy and Fukuyama (2010), in their seminal work on "Development strategies", argued that the key challenge for development strategy is to shift from merely recommending ideal economic policies to taking a comprehensive view of the interplay between economic, political, and social constraints and dynamics within institutions. The goal is to pinpoint entry points that can disrupt a low-growth stalemate and kickstart a positive cycle of progressive change.

- **Wealth Creation Development Definition and Scope of Application**

- **NESG Assessment of Development and Wealth Creation Trajectory and the Role of University System**

Wealth Creation Development Definition and Scope of Application

According to Smith A. (1937). In his inquiries into the causes of the wealth of nations, Adam Smith insists that the world of nations is based on productivity- that it is the translation of factor conditions and the demand conditions of society into the economic equivalent that creates wealth for nations. In other words, it is not a nation that is richly endowed that we call wealthy; it is a nation that is rich in its capacity to be productive with what it has that becomes wealthy. It is not a nation with a significant headcount that matters; it is the nation where the heads that count matter that becomes competitive. So fundamentally, wealth creation is the output of development.

Porter, M. E. (2011) notes that the competitive advantage of nations shows that nations with a state capacity to transform factor conditions and demand conditions through policy design, government intervention, and the building of economic, political, and social institutions that are networked to provide competitive advantage become significantly wealthy.

Acemoglu, Johnson and Robinson (2024), the recent Nobel Peace Prize in Economics collaborative work hold several promises in thinking about the future of institutions regarding wealth creation and national prosperity; they note a direct correlation between extractive and inclusive institutions that persist in post-colonial states and the nature of colonial rule. Their findings show that nations where the environment was too harsh for Europeans to form colonies into which other Europeans could leave and settle permanently tended to have more systematically extractive institutions that did not serve the post-colonial independent state well. They note a direct correlation between the kind of rule pre-independence the nations had and whether the institutions in those nations are characteristically inclusive or characteristically extractive. In nations like Nigeria, the environment was not conducive for the Europeans to settle, so institutions were built in countries like Nigeria, which were primarily extractive institutions. Fundamentally, the strategy was to exploit the resources with as little investment in inclusive institutions as possible. They conclude that political institutions and the distribution of resources depend on how power structures were set up, and when those structures, as in the case of Nigeria, were patrimonial, they shaped economic institutions, which in turn determined national economic performance or lack thereof. Where there were inclusive institutions, the power structures favoured Economic institutions that created incentives for enterprise development, investment innovation, and economic participation.

NESG Assessment of Development and Wealth Creation Trajectory and the Role of University System

As the CEO of the Nigerian Economic Summit Group, Nigeria's Leading Private Sector Led Think Tank and Custodian of Africa's Longest unbroken National Public-Private Dialogue on the Economy, for the record it is crucial for me to establish our position based on the evidence.

In the last 4 decades, Nigeria, compared to its peers, has not achieved adequate economic and social development. The NESG plays four strategic roles in the country: Watchdog, Dialogue Partner, Connector and Intervener. As Watchdog, we leverage empirical analysis, evidence and rigorous research to drive evidence-based policy advocacy. Our annual Nigerian Economic Summit draws its themes directly from the Macroeconomic and Social Development National Scorecards. As Dialogue Partner, we conduct public-private dialogue platforms across 12 Policy Areas and 52 Policy thematic areas of interventions. As Connector, we drive policy change by building multi-actor reform networks and communities across the public and private sectors. As Intervener, we affect policy change by providing technical assistance to translate policy proposals into strategic agendas and actions that deliver positive socioeconomic outcomes and impact. We call on a broad range of national and international experts and researchers to do our work. For example, there are over 2000 volunteer experts in the NESG community; without them, our work would be impossible. One of the tools for our watchdog and dialogue partner function is using international comparative studies to nudge national leaders to reflect, rethink, re-strategise and change direction. In the last decade, an essential set of studies is a comparative analysis of countries with equivalent size and structure of economies like Nigeria and the same relative complexity regarding development changes. Two of the choice cases are Indonesia and China.

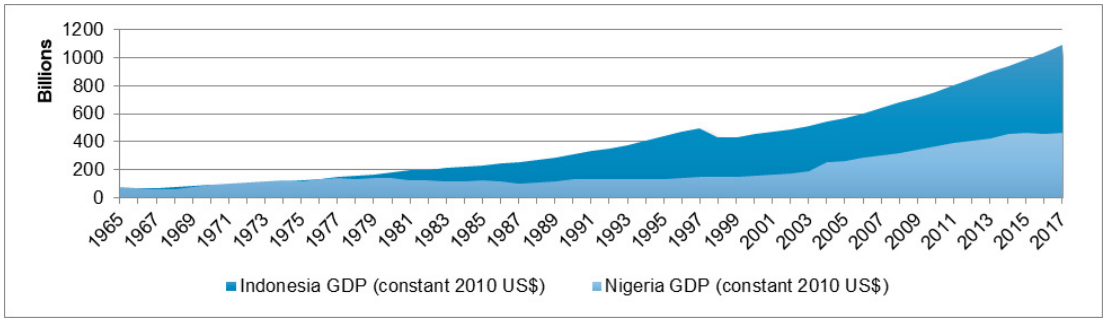
A Comparative Analysis of Nigeria and Indonesia's History of Development and Wealth Creation

A Comparative Analysis of Nigeria and Indonesia's History of Development and Wealth Creation

For the comparative analysis of Nigeria and Indonesia's history of development and wealth creation, the NESG invited Prof Peter Lewis of the University of Michigan, USA, based on his groundbreaking study and book Growing Apart: Oil, politics, and Economic Change in Indonesia and Nigeria. Across two Economic Summits just following the 2016 Recession, Lewis, P. (2009) was physically here in Nigeria to present why our decisive strategic shift was necessary for the Presidential Plenary.

He demonstrates that while Nigeria and Indonesia had very similar GDPs in 1965, between 1965 and 2017, Indonesia left Nigeria behind. By 2017, Indonesia's economy was nearly 2.7 times the size of Nigeria's.

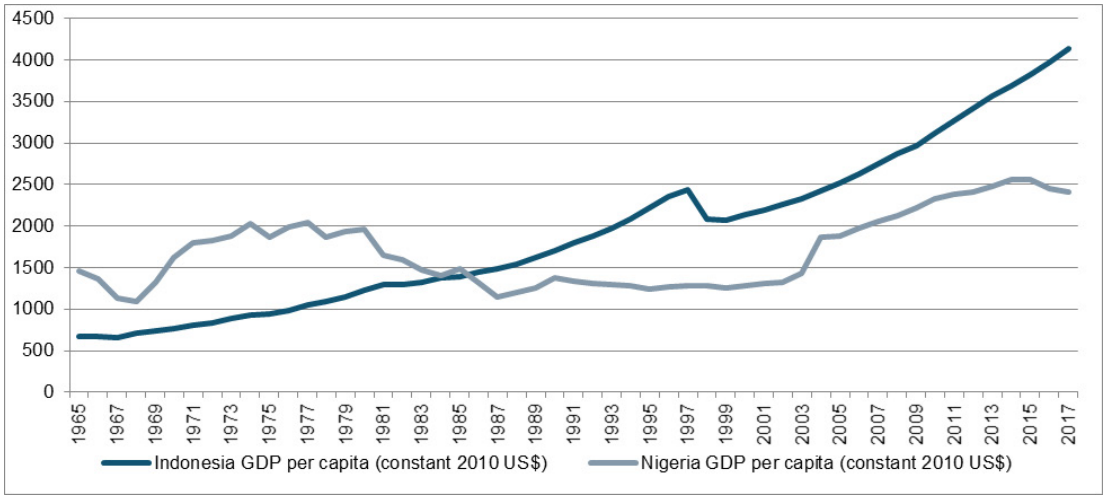
Nigeria and Indonesia: Comparative Size of the Economy, 1965-2017 (constant 2010 US$)



Source: Adapted from: Lewis, P. (2009). Growing apart: Oil, politics, and economic change in Indonesia and Nigeria. University of Michigan Press.

Regarding our people's standard of living, Nigeria had a much better standard of living (in terms of GDP per capita), at approximately $1400, compared to Indonesia's roughly $700. Between 1965 and 2017, Indonesia more than quadrupled its GDP per Capita to over $4000, while Nigeria peaked at $1800 in 2017. In the same period, Indonesia reduced its poverty rate (in terms of % of population under $1.90/day @ PPP) from 71.4% to 5.7%. At the same time, Nigeria moved marginally from an average poverty rate of 53% to 55% in 2017.

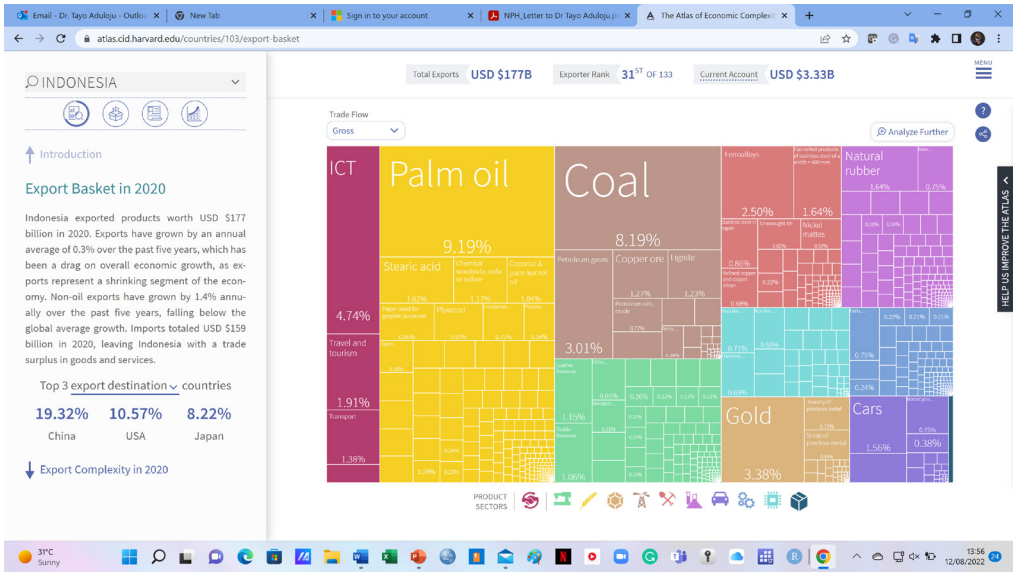
Nigeria and Indonesia: GDP Per Capita 1965-2017 (constant 2010 $US)



Source: Adapted from: Lewis, P. (2009). Growing apart: Oil, politics, and economic change in Indonesia and Nigeria. University of Michigan Press.

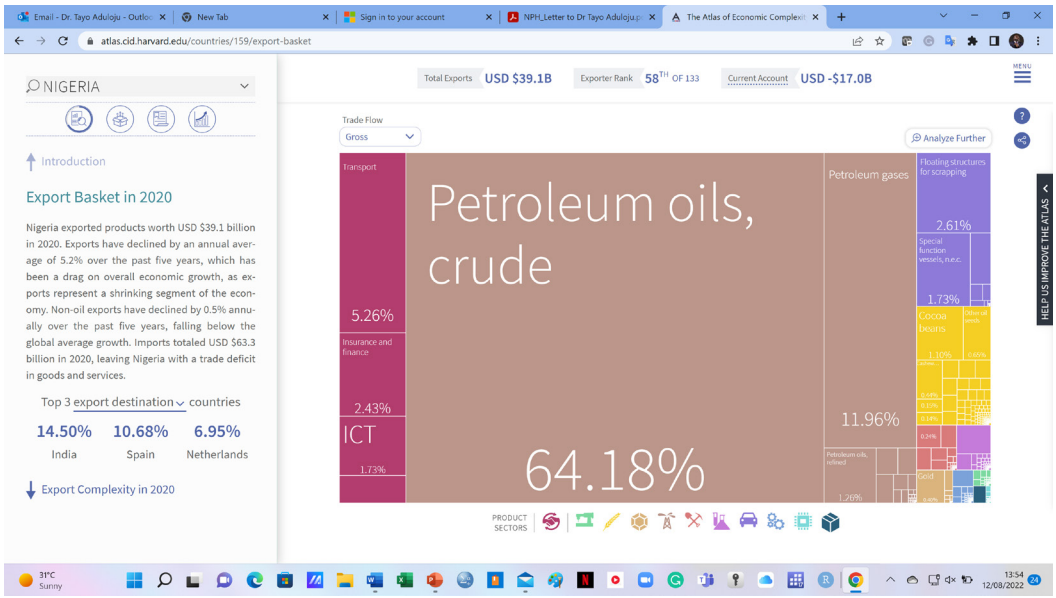
How did Indonesia Grow Apart from Nigeria?

First, it transformed its workforce and institutions from being extractive to focused on diversified and inclusive growth. This allowed Indonesia to move from Raw Material Commodity dominance in Export Trade (which in the 1960s (65% Agriculture and 30% Petroleum, to in the 1980s (75% Petroleum, 25% Agriculture; in 2017 (50% Manufacturing, 20% Petroleum). By 2021, Indonesia's Balance of Trade was $177 billion, and it was the 31st World Exporter, with a positive trade balance of $3.3 billion (ECI, 2021). The ECI for Indonesia illustrates the strategic shift in the computational capacity of the Indonesian society to produce more complex products.



Source: Atlas of Economic Complexity (2022)

Like Indonesia, in the 1960s, Nigeria's predominant export was 90% agriculture, which shifted to over 90% petroleum. Despite the significant diversification of the GDP, in 2017, 92% of Nigeria's exports were still petroleum, and in 2021, they were just above 80% and services approximately 10%. Therefore, Nigerian institutions have remained extractive.



Consequently, Nigeria remains uncompetitive mainly in trade. This is more than a policy problem; it is a development problem: it requires addressing the institutional capacity, the ideas that drive policy, the leaders who decide and execute the policy, and the society that must benefit from the outcomes. Thanks to the refocusing of government policy, this is now expected to change decisively, especially if the Nigerian Oil and Gas sector steadies the course of transforming crude oil and gas and refocuses on exporting refined petroleum products, thanks to the Dangote Refinery and its catalytic effect of the resurgence of local refining

competitiveness. Please note that while Dangote Refinery employs a staggering 30,000 Nigerian Workers to build and run a refinery, they had to migrate several job families of experts from other countries because we didn't have the technology know-how for several competencies required to finish the project and commence operations. So, an additional 11,000 foreign experts are necessary for the success they have achieved. This is not new. Most Middle Eastern and Asian transformations require the migration of know-now capacity in the initial stages of technology acquisition for economic transformation. However, we must see a more proactive, engaged, and transformational university if we do not repeat the mistakes of the past, where we brought experts to build and run our refineries. Once they left, the same refineries were run into the ground.

Daniel Pink said, "Education in general, and higher education in particular, is on the brink of a huge disruption. Two big questions, which were once so well-settled that we ceased asking them, are now up for grabs. What should young people be learning? And what sorts of credentials indicate they're ready for the workforce?"

Indonesian Education Transformation

Setiawan (2020) notes that in the 1980s, Indonesia, having been hit by the same recessionary pressures and commodity price shocks as Nigeria, became decisive in recalibrating its institutions' computational capacity to create complex products and services that it could trade in the global markets. The Indonesian education system has undergone substantial transformations from pre-colonialism and colonialism to the early years of independence and into the current era. We highlight the significant changes and events that have shaped policies and practices concerning student enrollment and school access, teacher training and certification processes, and the evolution of the national science curriculum and resources. Before colonial influence, there was no organised national education framework; however, Hindu, Buddhist, and Islamic institutions provided religious instruction for their adherents. Throughout the colonial era, education in rural areas was predominantly managed by religious groups, including Christian missionaries and Islamic religious schools. Like Nigeria, Indonesia developed a universal education system; universities were established as colleges in the Colonial era. However, a crucial distinction lies in the determination of Indonesian leaders, which enabled the country to reach universal basic education by the 1980s. In 1994, the government introduced a policy mandating 9 years of free compulsory education for all students. Between 1994 and 2012, the net enrollment rate for junior secondary education experienced a remarkable rise from 50% to 70%. Indonesia's economic achievements have provided the necessary resources to finance this large-scale initiative, and the political reforms focused on accountability have enhanced the efficiency of its expenditures.

In 2013, the Indonesian government established universal secondary education, extending compulsory education from 9 to 12 years. While primary and lower secondary education is free, upper secondary schools require minimal fees. The government and science educators aim to effectively educate diverse student groups to meet economic and social needs, ensuring competitive pay for educators. The K-12 education system balances academic and vocational training to prepare the workforce. Trade schools are linked to industry competency councils to align education with job market demands. Funding for schools may come from tuition, private organisations, or government support, with a significant portion of schools, especially vocational ones, being privately run yet still receiving financial assistance from the government. Lastly, with values, education is deeply embedded in the university curriculum.

Setiawan (2020) and Moeliodihardjo et al. (2012) agree that by the 2000s, Indonesian Universities had achieved at least an institutional understanding of the industry's demand dynamics and role in economic transformation. However, they noted that Indonesia's Economic Acceleration and Expansion towards 2030 would require a new level of consensus. Collaborative activities have included service and training, patenting, R&D, networking, industrial collaboration for education, incubators, SME support, and science parks. Universities and industries remain in an institutional sphere, lacking mutual understanding and clarity in the institutional framework. As a result, academics form partnerships with industries individually rather than collectively. Universities believe that few domestic companies are interested in or capable of innovation, as most focus on assembly operations.

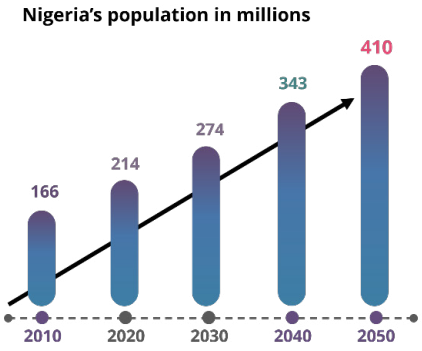
Ladies and Gentlemen, it would be nice for the Nigerian University System to achieve these levels of collaboration with industry by 2027. Then, we can pursue consensus for economic acceleration and expansion towards a one-trillion-dollar economy. The Late Dr Myles Munroe used to say, "You cannot transform what you do not engage." So, let the engagements continue, deepen, and grow.

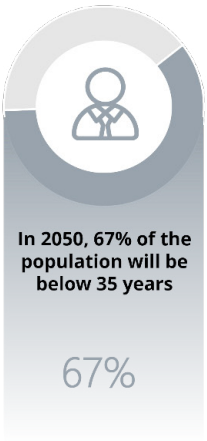
Situating Nigeria in the Conceptual Frameworks and 2050 Strategic Horizon

The development of the Nigerian state and its institutions has significantly influenced the country's economic, social, and political trajectories. Ajakaiye (2023) highlights the critical interactions between public, private, and civil institutions in shaping this development. According to Fukuyama's model, the Nigerian state is neo-patrimonial, while Hausmann's model categorises it as a low economic complexity state. Additionally, Porter's model identifies Nigeria as a low-competitive state, further emphasising the challenges in fostering economic growth and competitiveness.

Ajakaiye (2023) emphasises that acknowledging the current baseline is crucial for addressing Nigeria's developmental aspirations. However, he also highlighted a significant challenge: the need for elites across political, business, intellectual, and military spheres to establish a consensus on a coherent developmental trajectory and philosophy. This consensus is essential for creating a radically different future that shifts away from past experiences.

According to projections from the Nigerian Economic Summit Group and the United Nations Development Programme, Nigeria's population could reach 420 million by 2050, with approximately 70% being under 35 years old. This demographic shift, which builds on the current statistic of 65% of Nigerians under 35, underscores the urgency of establishing a developmental agenda. Such an agenda is not merely a choice but a vital priority for Nigeria's survival and progression into a promising future.





Growing population creates pressure on

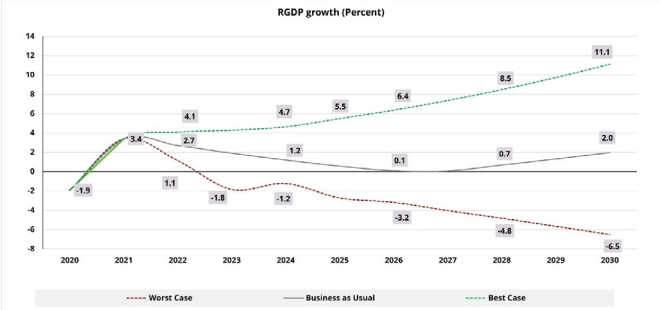
- Social amenities
- Infrastructure
- Food security
- Human capital
- Jobs

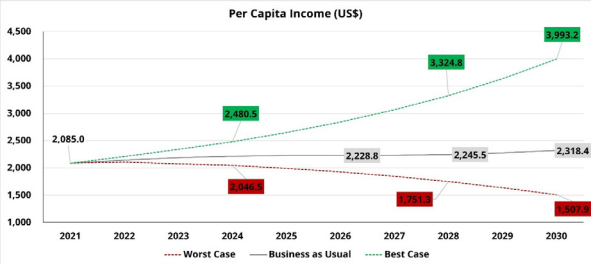
Our projections of the trajectory of development: We've broken this into three scenarios: a Nigeria rises scenario, a Nigeria fails scenario and a business-as-usual scenario.

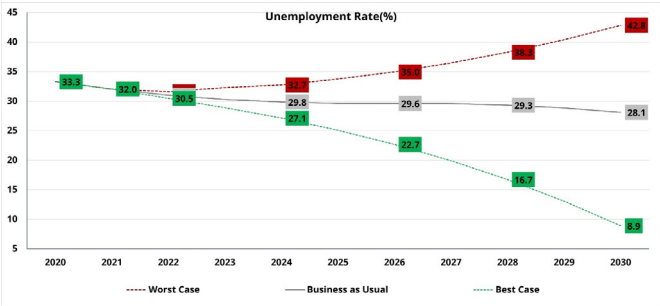
1. In the first scenario, Nigeria Rises. The economy is booming, we have lifted many people from poverty, and Nigeria has become an industrialised nation. Of course, this is the most desired outcome—the Nigeria of our dreams.
2. The second scenario is a moderate case—Nigeria Stagnates. Nigeria does not improve significantly or wither.
3. the third and final scenario, Nigeria fails. Under this scenario, Nigeria falls into a recession and burdens the global economy. Poverty and unemployment become rampant, and the country heads towards disintegration.

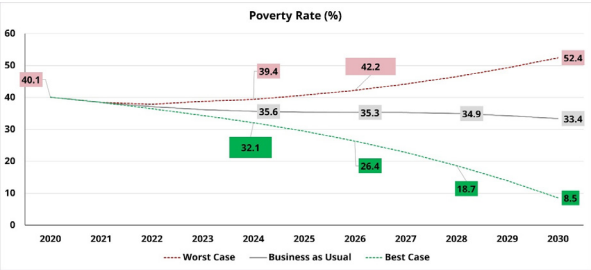
The first result looks at GDP growth. It shows that in the best-case scenario, the economy expands at an annual average of 9.3% in the next 30 years. During the 31 years, GDP growth peaked at 11.9% in 2041. Nigeria will attain double-digit GDP growth in 2035 with a growth rate of 10.1% and maintain this rate thereafter.

1. Under the worst-case scenario, Nigeria will enter a recession by 2025. Recession will become the norm. Inflation will increase rapidly, the naira will lose its value, and unemployment, conflict, theft, and other social vices will become the order of the day.
2. The moderate case shows that the economy expands at an average annual growth rate of 3.3%.





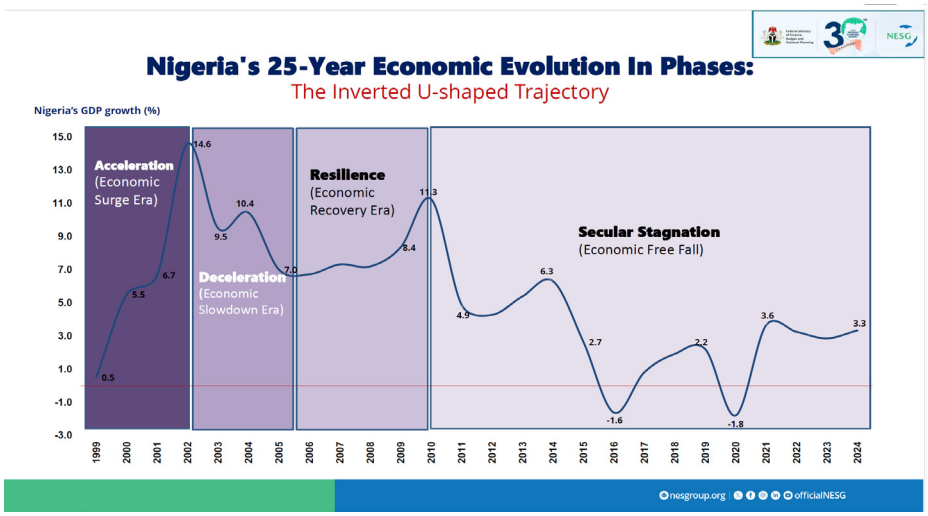




NESG (2019): Shifting Gears. The Nigerian Economic Summit Green Book.

Due to its size, the Nigeria Rises scenario is the only viable path to realising Nigeria's national potential. Post-1999, Nigeria shifted to a liberal economic approach, abandoning national development planning that had begun in 1960. Ajakaiye (2023) noted that the collapse of oil prices in 1981 and subsequent debt led to the neoliberal Structural Adjustment Program (SAP) in 1986, resulting in economic disarticulation and rising unemployment. In response, a 3-Year National Rolling Plan was introduced in 1990, but from 1999 to 2014, the focus remained on neoliberal policies. The 2015 administration lacked resources to address oil price shocks and COVID-19 impacts, leading to the primarily neoliberal Economic Recovery and Growth Plan (2017-2020), which performed poorly according to the National Development Plan 2021-2025.

The NESG's Review of The Last 25 Years of Economic Governance under Democratic Rule



Since 1999, Nigeria's economic growth has been marked by significant volatility, with about 80% of this period characterised by instability. Starting in 2003, the economy has exhibited a W-shaped pattern, frequently slipping in and out of recession. The country's challenges can be attributed to three main factors. First, there is a productivity gap; for economic growth to be sustainable, Nigeria must advance its production processes and diversify what it produces. Second, an innovation deficit poses a significant hurdle, as the lack of product innovation across various sectors results in continued reliance on the oil industry. Lastly, the economy remains heavily dependent on oil, accounting for over 60% of its revenue, which increases vulnerability to external shocks. In light of these issues, there is a pressing need to develop a state structure that aligns with the realities developing countries face. Scholars and practitioners have proposed the concept of a Democratic Developmental State to address these challenges effectively.

Ajakaiye (2023), citing Kanyenze et al. (2017:20), prescribes that a Democratic Developmental State should ensure that citizens participate in the debt and governance processes, foster pro-poor, broad-based economic growth and human development, be capable of transforming its productive base, and ensure that economic growth improves the living conditions of the majority of its people. The framework within which a DDS can consolidate and operationalise these features and mobilise all actors in a participatory manner necessary to deliver sustained high economic growth, economic transformation and technological sophistication, and

Ethical income distribution and the eradication of poverty have been dubbed the Public-Private Interface (PPI) by Ajakaiye (2013) and Ajakaye and Jerome (2015).

Exploring the Role of Universities as Hubs of Development and Wealth Creation in Africa

Despite its vast natural resources, Africa faced significant economic challenges, accounting for only 2.4% of global GDP while having around 30% of the Earth's remaining mineral resources, including over 40% of gold and 90% of platinum reserves. In the 1970s, Africa exported over 60% to Europe but received only 7% of intra-continental exports, leaving it one of the world's poorest continents. To overcome these challenges, African policymakers can Increase domestic revenues, improve spending efficiency and leverage the continent's demographic advantage. Accelerate the implementation of the African Continental Free Trade Area (AfCFTA): Foster entrepreneurship and modern competitive economies. Invest in mineral resource development. Key African universities can serve as Hubs for integrating knowledge, innovation and ideas.

According to Archibong et al. (2021), successful reforms need pro-poor policies alongside market-oriented approaches, stable governance, and a favourable socio-political environment. Key to a favourable climate is a public-private synergy. They agree with Ajakaiye (2013) and Ajakaye and Jerome (2015) that Africa must consider the public-private interface for effective development and wealth creation to be successful. In the context of Japanese economic growth, there was a strong consensus between business and government regarding the role of the keiretsu. This term, which translates to a grouping of enterprises, refers to networks of companies characterised by interlocking business relationships and shared ownership. The keiretsu have significantly shaped the Japanese economy since the latter half of the 20th century. Their emergence coincided with the Japanese economic miracle that followed World War II, a period marked by the dissolution of traditional family-controlled monopolies known as zaibatsu.

The consensus around national policy competitive advantage development focused on radical global technological and knowledge acquisition, rapid industrialisation innovation agenda, disciplined government intervention support, and extensive and deliberate market linkages and cooperations across Japan. The consensus around industrial development included strong national service of business values (business bushido), a highly educated populace and the most disciplined workforce on earth, high levels of specialised division of labour, advanced accumulation of technological know-how through extensive investment in research and development and high personal savings rate.
The consensus around social development included a robust social contract consisting of a deep partnership between national corporations and government on national social contracts for successful businesses, a deep commitment to collaborating with national and regional leaders to build national value chains and specialised small and medium-scale enterprises, and a deep partnership between national corporations and society on social mobilisation, workforce transformation and social protection.

The Four Asian Tigers—Hong Kong, Singapore, South Korea, and Taiwan—are renowned for their exceptional economic growth, primarily fueled by exports and swift industrialisation since the 1960s. Over the decades, these economies have consistently achieved high growth rates, positioning themselves among the wealthiest nations by the 1990s. After the Asian Financial Crisis, they concentrated on regeneration and recovery to preserve their economic dynamism. This approach reflects a shared elite consensus on fostering national competitiveness, cultivating a strong consumer class, and establishing a solid social contract.

Fukuyama (2004) argued that Universities and other ideas/knowledge institutions should be vested in state capacity development and should understand the key entry points unique for each country. In Nigeria, the ambition and strategic missions of our leading Universities show there is already a strategic intent to backstop the country's state capacity development.

Mellamby (1958), cited by Ayanbe (2014), notes that the British Colonial Elliot Commission urged colonial authorities to support the establishment of universities in their territories, aiming for academic standards on par with British institutions. Consequently, older Nigerian universities have sought world-class status, including:

1. The University of Ibadan aims to be "a world-class institution for academic excellence geared towards meeting societal needs" (Obanya, 2010).
2. The University of Nigeria, Nsukka's vision is "to create a functional, globally competitive, and research-focused university... responsive to societal needs while delivering world-class education" (Ugwu, 2013:67).
3. Ahmadu Bello University's vision includes being "a world-class university... generating new ideas relevant to its community and the world" (Anyebe, 1995).
4. Of course, the University of Lagos aims to be a "top class institution for the pursuit of excellence in knowledge, character and service to humanity" and to "provide a conducive environment for teaching, learning, research and development, where staff and students will interact and compete effectively with other counterparts globally." (UNILAG, 2024, n.d.).
5. In 2011, the Committee of Vice-Chancellors called for Nigerian universities to uphold the highest standards in teaching, research, and public service (Ugwu, 2013:8).

The expansion of university education in Nigeria reflects global challenges in higher education. Worldwide, there is a growing demand for higher education, leading to various responses. In Great Britain, red brick universities evolved alongside polytechnics, becoming universities with a shift towards vocational education. The United States expanded its community college system and private higher education sector. Western European countries, like France and Spain, decentralised their higher education management, while Southeast Asian nations expanded their systems with corporate partnerships. Cuba effectively integrated its educational challenges into its command economy, and South Africa aligned techniques with universities to improve access. To overcome similar challenges, Nigerian universities must also enhance their financial capacity through sound management, reorganising revenue sources, and exploring new funding avenues like endowments. Emphasising the economic potential of their assets and forming academic partnerships will also be crucial.

Some key considerations from the Fukuyama model application to our Nigerian context:

- State capacity-building should provide universities with the platform for supporting well-defined accelerated growth via improved public sector performance and strengthened political institutions, the private sector, and civil society. However, this usually requires that the public sector create the consensus space.
- A national university education agenda that sustains the human capital development imperatives of the state capacity-building programme is essential to ensuring that public, private, and civil society have the competencies required for political, economic, and social development.
- Transformational governance starts with the reshaping of a country's political institutions. As institutional changes enhance accountability and reduce the potential for arbitrary discretionary action, accelerating growth could follow, shifting expectations in a positive direction.
- For' just enough governance', the initial focus is on growth itself, to address specific capacity and institutional constraints as and when they become binding -- not seeking to anticipate and address all possible institutional constraints in advance.
- Bottom-up development engages civil society as an entry point for seeking more substantial state capacity, lower corruption, better public services, improvements in political institutions more broadly -- and a subsequent unlocking of constraints on growth.

- **The Educational Hubs: At the Nexus of Development-Business and Government**

- **The Characteristics of National Frontier Mandates: The US Case Study**

The Educational Hubs: At the Nexus of Development-Business and Government

A comparative analysis of the Asian Tigers and Southeast Asia reveals that successful economic transformation requires a national consensus on education. Each country prioritised raising literacy levels, aiming for at least 75% to 80% literacy among its population. This is essential for a democratic developmental state, as an uneducated populace can lead to dangerous outcomes. Without education, impoverished citizens are vulnerable to exploiting their circumstances, undermining their agency and personal growth. This situation reflects the plight of many left behind in Nigeria.

Asian countries that have become middle powers have transformed their educational institutions into hubs that connect industry, government, and society, achieving a triple helix of collaboration. Some have even progressed to a quadruple helix by including civil society. However, there is currently no dedicated educational hub for development. I aim to create one that bridges the gap between academia and industry, fostering collaboration that rethinks societal functions and aligns goals with the country's developmental paths. This collaboration will also focus on enhancing Nigeria's capacity to build effective economic, social, and political institutions, addressing the current deficits observed in its financial, political, and social frameworks. National Frontier Mandates can unite society around clear and ambitious goals, forming the basis for effective University Hubs. Here are some possible frontier mandates we can build hubs around include:

- National Infrastructurisation: According to the National Infrastructure Master Plan, Nigeria requires $3 Trillion to upgrade its Energy, Transport, Agriculture, Water, Mining, ICT, Housing & Regional Development and Social Infrastructure. Given current plans, private sector investments need to increase across all sectors: $50 billion per annum from now till the next 10 years for significant sectors. The Gap Assessments notes that Nigeria does not have enough engineers across the infrastructure sector to build the country stock at scale. We need 3.5 million active engineering jobs in the next 10 years to shift the fundamental infrastructure factor conditions for national competitiveness.
- National Agro-Industrial Transformation and Sufficiency: We face challenges in feeding ourselves, even though we are blessed with 84 million hectares of arable land characterised by eight agroecological zones that equip us to produce almost every time food and livestock. According to Nigeria's Futurology Working Group for Agenda 2050, Nigeria has the potential in 10 years to reduce its loss of arable land (by a rate of 10 million hectares per decade), shift fertilisation rate from under 14% to 85%, improve High Yield Seed Access Remains from 2% - 75%, improve Mechanization Per Hectare (from 0.3 hp/ha to 7.0 hp/ha), Close Food Supply Deficit of $10 Billion/Annum (50%), expand commercial Lending to Agriculture from 4.5-5% - 15%, Increase Irrigation Rate from 10% to 90% and achieve all year cultivation. Increase Primary Processing from less than 2% to 70%. We can achieve the optimal annual national cultivation rate of 42 million hectares, and the new 4IR AgTech can radically transform yield gaps from 145% to 25% – In a decade, we can be positioned to food ourselves and the rest of Africa. Nigeria's Agro-Industrial Transformation will also transform agriculture jobs, requiring 5 Million retrained Smallholder Farmers, 2 Million Agriculture Mechanized Workforce and 1 Million Agronomists/ Agric Scientists/AgTech specialists
- Build a $1 Trillion Sovereign Wealth Fund: Our sovereign assets, exceeding $14 trillion, contrast sharply with a debt burden of less than $50 billion
- Create 25 Million Jobs in 4 years: With 225 million Nigerians and 65% under 35, there's potential to put our youth to work and compete effectively.
  - Generate $100 Billion annually in Non-Oil Exports by 2030: Aimed at diversifying the economy.
  - Achieve Universal Birth Registration in 12 Months: Currently, nearly 20 million young Nigerians lack registration amidst alarming rates of maternal and child mortality.
- Achieve Universal Basic Education in 48 Months
- Lastly, Nigeria needs a National Jobs and Workforce

Agenda. We must put Nigerians to work at scale in high-elasticity jobs. Between 1991 and 2021, our job elasticity computations at the NESG show that we have an average of 0.4 (This suggests that for every 10 jobs created, only four people are lifted out of poverty, on average). The Macroeconomic Analysis Working Group for 2021-2025 National Development Plan noted that Nigeria could move its job elasticity to 4.3 (This suggests that for every 10 jobs created, only 43 people are lifted out of poverty, on average) and that we could produce 12 million of those jobs by 2030, lifting over 52 million of our people out of poverty.

The Characteristics of National Frontier Mandates: The US Case Study

Let me illustrate how national frontier mandates shape universities into hubs, using the U.S. moon landing as an example. President John F. Kennedy delivered two significant speeches about this goal. On September 12, 1962, at Rice University, he described space as a new frontier and emphasised Americans' freedom to choose their destiny while calling for competition with the Soviet Union. He acknowledged the challenge of the mission, stating it would showcase the nation's best skills. Earlier, on May 25, 1961, he announced to Congress the goal of landing a man on the moon by the decade's end, accomplished on July 20, 1969, when Neil A. Armstrong became the first person to walk on the moon.

When the U.S. military selected its first astronauts in 1959, it prioritised military personnel with engineering training and jet aircraft experience. In 1964, NASA sought scientists with doctoral degrees in medicine, engineering, or natural sciences. NASA estimated it took 400,000 people to achieve this—scientists, technicians, sewists, engineers, pilots, and chefs are just some of them. The brilliant, award-winning film Hidden Figures hints at the scale of knowledge networks involved.

The Nature of the Frontier Mandate Networks

So, while NASA was the government agency with the primary mandate to put a man on the moon, primarily through NASA's Apollo program, it involved partnerships with various academic institutions. Over 200 universities and colleges were actively engaged in supporting the Apollo program and broader space exploration initiatives. There were five pillars of the mandate: Scientific Research (Developing new technologies, materials, and instrumentation), Engineering Design (Providing advanced designs for spacecraft systems and navigation), Data Analysis (Processing and analysing data from missions), and Astronaut Capacity Development (Supporting medical, psychological, and physical research for astronauts). The Apollo Program thus created the Triple Helix National Community around the mandate. These universities worked alongside NASA's research centres, private contractors (like Boeing and Grumman), and government labs, making the Apollo program a collaborative effort on an unprecedented historic scale.

The University Hub within the Apollo Program

Table of Universities' Contribution to the Apollo Program			
	University	**Role**	**Contribution**
1.	Massachusetts Institute of Technology (MIT)	Development of the Apollo Guidance Computer (AGC).	MIT's Instrumentation Laboratory (now Draper Labs) designed and developed the AGC, which was critical for navigation and controlling the Apollo spacecraft.
2.	Purdue University	Training ground for astronauts	Known as the "Cradle of Astronauts," Purdue is the alma mater of 25 astronauts, including Neil Armstrong, the first to walk on the moon.
3.	University of Houston	Support for astronaut training and life sciences.	Collaborated on biomedical research and space life sciences to ensure astronaut health and performance.
4.	Stanford University	Advanced communication systems.	Contributed research in satellite and space communications, including work on antenna technology.
5.	University of California, Berkeley	Space science research	Conducted studies on lunar geology and space environments, supporting analysis of moon samples brought back by Apollo missions.
6.	University of Michigan	Engineering and systems analysis.	Worked on spacecraft propulsion systems and contributed to developing inertial guidance systems.
7.	California Institute of Technology (Caltech)	Management of the Jet Propulsion Laboratory (JPL)	JPL, managed by Caltech, provided critical support for uncrewed lunar missions, which paved the way for Apollo
8.	Rice University	Political and scientific advocacy for space exploration.	Hosted President John F. Kennedy's famous 1962 "We choose to go to the Moon" speech, emphasising the importance of space exploration.
9.	Arizona State University	Lunar and planetary research.	Supported analysis of lunar samples and lunar mapping efforts.
10	University of Texas at Austin	Geophysics and mission planning.	Assisted in mapping lunar terrain and studying gravitational fields for mission trajectory planning.

Source: Appolo Archives (2024, n.d.). https://apolloarchive.com/

- **University As A Hub: The Strategic Imperatives**

- **Conclusion: What is Possible for Universities as Hubs of Development and Wealth Creation**

University As A Hub: The Strategic Imperatives

An education hub must at least deliver, at the 1st instance, seven fundamental broad principles and practises that are different from how they exist today:

1. There must be an agreement to align the objectives and priorities of National Universities with national development frontier targets. This alignment involves collaboration between industry and government to establish a clear vision for the future. Integrating educational agendas with development goals makes it possible to foster education tailored to developmental progress, paving the way for a brighter future for Nigeria.

2. The proposal establishes a collaborative framework for Academic Centres of Excellence. This framework will allow these institutions to leverage their strengths while agreeing on targeted programs that will contribute to economic growth and industry advancements. Additionally, these efforts will align with the National University's objectives and priorities, ensuring they support national development goals and industry and security targets.

3. The third focus will be to realign research agendas with innovation and technology needs to enhance competitiveness in Nigeria. This is a suggestion and a necessity to keep up with the rapidly advancing world. This requires investing in business skills within educational institutions, especially for scaling research. Nigeria currently has one of the lowest research investment rates relative to GDP, limiting its ability to compete globally. Historical industrial developments in Asia, driven by postcolonial behaviours, have been rolled back over the past four decades. As of 2020, the world has entered the fourth industrial revolution, characterised by AI, robotics, and renewable technologies. Nigeria needs significant technological advancements in science and engineering to address pressing issues like energy and food security. This necessitates a strong partnership between industry and academia, with consensus among business leaders to tackle the nation's challenges effectively.

4. The 4th imperative of an education hub emphasises the independence of thought and the necessity to explore the connection between theory and practice. The aspirations of scholar-practitioners in the UK parallel those needed for Europe's reconstruction and are essential for navigating the economic rise of Asia. This imperative calls for transforming leadership competencies and blending theoretical and experiential knowledge to meet national development needs. Educational leaders must align university systems with national agendas, while business leaders should clarify industry requirements for higher education. Education hubs must foster collaboration to bridge the workforce readiness gap effectively.

5. The 5th imperative emphasises the need for a strong respect for the philosophy of science, humanities, art, and social sciences aligned with Nigeria's developmental priorities. This approach should focus on creating a globally competitive human development model for Nigerians. To achieve this, teaching methods must be transformed, including more sabbaticals for philosophy professors in research and industry. This collaboration will foster debates on effective practices, directly impacting curriculum changes. Addressing the disconnect between classroom philosophy and industry needs is crucial for preparing our children for the future.

6. The 6th imperative is securing funding for education. Hubs cannot be approached piecemeal, and the current university funding model hinders research and innovation essential for national development. We need diverse funding sources to empower the private sector to support research centres and scholarship programs. This will enable universities to offer competitive tuition, attract skilled professors, and provide access to education for those in need. Transforming the university system requires collaboration between the government, industry, and civil society to create a robust educational framework that will benefit Africa's future.

Please note that there is a direct correlation between the Universities that participate in delivering frontier mandates and significant investment from the Private Sector.

- Massachusetts Institute of Technology (MIT): Through collaboration with ExxonMobil, Shell, Eni, and the U.S. Department of Energy, MIT developed innovative technologies in solar energy, battery storage, and energy-efficient building materials to reduce the cost of solar energy by 50%. $600million in funding
- Stanford University: Partnered with Genentech and Gilead Sciences and public health agencies and attracted over $ 200 million. The Stanford Genome Technology Center's work has led to new diagnostic tools that can detect diseases like cancer at much earlier stages, potentially improving survival rates by up to 30%

7. The seventh imperative is establishing an entrepreneurial education hub beyond just training entrepreneurs. Intrapreneur Education is a problem-solving and consulting centre that addresses academic and practical societal challenges. This hub leverages the university's collective knowledge to create solutions for these issues. It plays a critical role in wealth creation and addressing developmental challenges. Well-funded, it prepares students for vocations in key industries, government, and civil society by training them to see national problems as opportunities.
"The entrepreneurial university is characterised by its ability to integrate research, education, and entrepreneurship to create an ecosystem where innovation can flourish and real-world impact can be achieved." -- Henry Etzkowitz, Sociologist and Co-Founder of the Triple Helix concept

The principles of an Entrepreneurial University revolve around several key aspects aimed at fostering innovation and collaboration. At the core, it promotes innovation and creativity, emphasising the importance of innovative thinking, creative problem-solving, and the willingness to explore new ideas. Industry collaboration is crucial, with the university actively engaging in collaborative research projects and providing internships and real-world problem-solving opportunities. This collaboration is further enhanced by cultivating an entrepreneurial culture within the institution, where entrepreneurship is integrated into the curriculum, along with workshops, training, and access to resources such as hubs and incubators for budding entrepreneurs. Moreover, the commercialisation of research is fundamental, involving support for patenting and the creation of startups emerging from university research. Mentorship is also extended to researchers and students to guide them in their entrepreneurial endeavours. Partnerships with the private sector are encouraged to leverage cutting-edge research, while innovation hubs within universities are established to provide resources and mentorship for startups. Additionally, government support is vital, including financial backing for research and innovation projects and policies designed to encourage and facilitate collaborations between academia and industry. The principles of an Entrepreneurial University revolve around several key aspects aimed at fostering innovation and collaboration. At the core, it promotes innovation and creativity, emphasising the importance of innovative thinking, creative problem-solving, and the willingness to explore new ideas.

Conclusion: What is Possible for Universities as Hubs of Development and Wealth Creation

Your Excellencies, a multi-disciplinary, frontier-target-driven national education hub, requires broad-based political authorisation to be globally competitive. To do this, a few selected Universities (in my opinion, the first Five Public Universities (along with Leading Top Five Private Universities to start) should be authorised to financially and institutionally reorganise their operating model to achieve the following:
1. Rebuild Nigeria's intellectual foundation to enhance productivity and competitiveness. Establish hubs to develop leaders and a skilled workforce, enabling the country to become a leading industrial reformer in Africa. Break free from political and regulatory constraints to create an attractive investment climate. Strengthen a world-class civil service that fosters transparent governance. Focus on structural reforms to promote local content development, economic diversification, and growth while making incremental poverty reduction and job creation progress. Aim for Nigeria to dominate FDI inflows in Africa.

2. Establish an Industrial-Development-Policy Nexus in Education Hubs to foster consensus among business, political, and intellectual elites on developmental imperatives for Nigeria. This governance model aims to create a cohesive republic resilient to global shocks, achieve sustainable development goals, lift 100 million people out of poverty, and empower regional economies. As Nigeria expands its middle class and diversifies its economy, it will become a leader in intra-African trade and attract significant FDI inflows, ultimately emerging as a middle-income economy.

3. Incubate the Nigerian Dream – Universities should inspire students to contribute to a shared vision for Nigeria's future. By establishing coordinated Education Hubs for Development and Wealth Creation, in collaboration with industry-led competency councils, we can reimagine future workforces across key sectors. If these hubs become co-custodians of our long-term agenda, we can cultivate a globally competitive Nigeria.

Over the next 25 years, by systematically nurturing the Nigerian Dream and its future leaders, Nigeria can evolve into a socioeconomically advanced democracy by 2050: a prosperous, technologically enabled, and inclusive nation, becoming Africa's strongest economy and a source of pride for the black race.

Your Excellencies, Distinguished Leaders and Management of UNILAG, Distinguished Ladies and Gentlemen, These ideas and ideals are already working worldwide and will work here in Nigeria. The future can be radically different from the past and significantly transformative than the present – what it requires is courage - the courage not to be held back by myopic divisiveness, petty political patronage that divides us, sectional interests peddled by political manipulators that are only committed to a kakistoractic order where the worst and most incompetence of us drive the ship of state aground. In our time, we, represented by the generations of Nigerians here present, can usher this Ship of State into Nigeria's National Harbour of Destiny.
To the Students Graduating at this year's 2025 Convocation Ceremonies, I say to you the words a late Teacher used to say to me, in Latin, "Nanos gigantum humeris insidentes," He was quoting Sir Issac Newton 1676(, when he said, "If I have seen further, it is by standing on shoulders of giants".

Mastery is the characteristic trait of individuals who have shaped the world in sports, arts, business, politics, science and technology; they have inherently demonstrated certain principles that catapulted them to the summit of their profession. I want to propose the Six Principles of Mastery:
1. Find your Ikigai (that intersection of what you love, what you are good at, what you are passionate about, what meets a need in the world and what drives your economic engine). Finding it is a journey; when you see it, Aim for Mastery
2. Every Field has a Masters
3. Masters have acquired the Secrets of Excellence in their Field (these are insights, principles, practices, habits and competencies that are unique to that area of human endeavour)
4. You will never become a Master unless you humble yourself to learn from those ahead. You must master what they know before you go beyond it.
5. Mastery is a Process of Relentless Rigor in the Learning, Application, Internalisation and Integration of the Secrets of Excellence in your Field
6. Mastery requires the Investment of Time and Effort

I found later that Sir Isaac Newton, in 1676, was also quoting the Jewish Philosopher Isaiah di Trani (1180-1250); the wisest of the philosophers asked: "We admit that our predecessors were wiser than we. At the same time, we criticise their comments, often rejecting them and claiming that the truth rests with us. How is this possible?" The wise philosopher responded: "Who sees further, a dwarf or a giant? Surely, a giant, for his eyes are situated at a higher level than those of the dwarf. But if the dwarf is placed on the shoulders of the giant, who sees further? ... So, too, we are dwarfs astride the shoulders of giants. We master their wisdom and move beyond it. Due to their wisdom, we grow wise and can say all we say, but not because we are greater than them." Dear Graduands, this is the proper order of things. We see further because we stand on the shoulders of those who have gone before us. I want to take this opportunity to once again thank the academic and non-academic staff who have shaped the character and competence of this graduating class. As you go forth, may the earth continually yield to you its full strengths.

Your Excellencies, My Lords (Temporal and Spiritual),
Distinguished Ladies and Gentlemen,
Thank you for listening
Thank you to the University of Lagos for this priceless opportunity

And God Bless the Federal Republic of Nigeria

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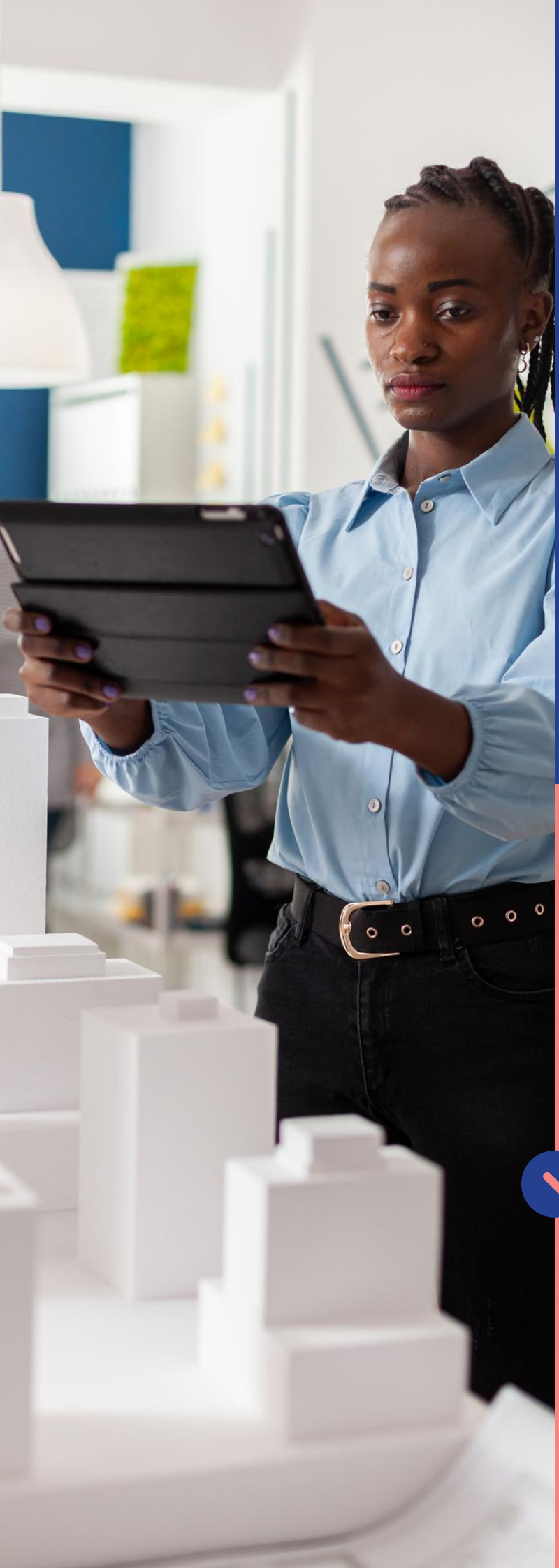

55TH UNILAG CONVOCATION LECTURE - "UNIVERSITIES AS HUBS FOR DEVELOPMENT AND WEALTH CREATION"