Logistics and Innovation Education as Pathways to Lifelong Careers, Economic Growth, and Africa's Sustainable Development

By

Prof. O. T. Ebiringa

Director Career Services and Counseling Centre
Pioneer Dean School of Logistics and Innovation Technology, Former Dean School of Management Technology, Federal University of Technology, Owerri.

Being a paper delivery at the maiden School of Logistics and Innovation Technology (SLIT) Lecture Series, held on

September 2, 2025 @ SLIT Lecture Auditorium,
Federal University of Technology, Owerri.

1.0 Introduction

The Vice-Chancellor, Deans, Heads of Departments, esteemed colleagues, students, and distinguished guest, it is a privilege and honour to me to deliver the maiden lecture of the School of Logistics and Innovation Technology (SLIT) Lecture Series, themed ***'Smart Frontiers in Logistics and Innovation: Redefining Africa's Path to Sustainable Development'.*** I have chosen to center today's conversation on the title: ***'Logistics and Innovation Education as Pathways to Lifelong Careers, Economic Growth, and Africa's Sustainable Development'.*** This title is carefully chosen to provide contextual background and framework that should not only provide guidance for the growth and development SLIT departments and programmes in line her philosophy, mission and vision. Also, in this conversation efforts will be made to justify the rational for redefinition of the education and practice of diversified logistics, as well as highlight its transformative role in shaping lifelong careers, driving economic growth, and enabling sustainable development in Africa, especially Nigeria.

2.0 Background Information

Distinguished audience, I am proud to say that the SLIT, Federal University of Technology Owerri is the facilitator and pioneer of the redefined and diversified logistics and innovation education in Africa, that has received national positive attention, recognition and full endorsement and approval by Nigerian university system quality assurance regulator, the National Universities Commission (NUC), as well as significant buy-in and acceptability by key Industry players and practitioner groups locally and internationally.

Interestingly, the logistics and innovation education redefinition in Africa being pioneered by FUTO, was a response solution to the existential problem of the delisting of the programmes of the defunct School of Management Technology (SMAT) by the Federal Government of Nigeria in 2017, based on the reason, though highly debatable that the FUTO as established by Federal government of Nigeria, don't have mandate to offer management technology programmes as part of her technology education portfolio for supporting Nigeria's economic growth and development.

The above led to FUTO's non-admitting of students into programmes previously offered by defunct SMAT for four years (2018-2021). No doubt, academic staff of

defunct SMAT faced threat and risk of lifelong careers negative disruption and likely extinction with corresponding loss of individual livelihood, growth and development.

It's worthy to note, that on assumption of office as Dean SMAT in July 1, 2019 by my humble self, I challenged myself and other faculty members of SMAT to take our destiny in our hands by either taken strategic actions to rescue our lifelong careers and livelihoods that was threatened, by wearing our intellectual and professional thinking caps to innovate and reengineer the delisted management technology programmes for value creation, market acceptability and global competitiveness, or our careers go into extinction.

We did not only think critically, but thought deeply, and saw disruptive pathways in redefining the traditional logistics education in scope and context. Of course the challenges imposed on the global economic systems by COVID-19 pandemic at the time, which amplified the key role of applications of logistics and innovation in all sectors for revamping the global economy, further substantiated our conviction to champion the redefinition of logistics and innovation education for lifelong careers, economic growth and sustainable development in Africa, starting from the Federal University of Technology Owerri Nigeria.

3.0 Evaluation of Traditional Logistics Education

Evaluation of traditional logistics education showed some shortcomings and limitations, which include being conceptually narrow and siloed in transport domain; lack multidisciplinarity in content and context; lack structured academic curricula and career pathways. However, it was observed that in the industry, logistics skills and competencies are mostly learnt on the job, with little or no formal logistics and innovation education. Equally observed is that possession of technical, digital and analytical skills and competencies are key to effective performance of most logistics roles and functions by individuals across organizations and sectors.

With these observations and clear understanding of the disruptive impacts of the evolving digital technologies (AI, IoT, Block-chain, robotics, big data, cyber security, etc.) on systems and processes, and the centrality of logistics and innovation as facilitator and driver of global economic systems, the need to

broaden the scope and context of logistics and innovation education became urgent and most compelling. Of course the strategy was to develop the diversified logistics and innovation education curricula on integration of Technology, system theory, entrepreneurship and management (TSEM) principles and pillars to support multidisciplinary learning and techno-managerial knowledge transfer, leading to acquisition of multi-skilled competencies for lifelong careers, productivity, contribution to economic growth and sustainable development.

4.0 Lecture Objective

SLIT having pioneered the redefinition of logistics and innovation education in Nigeria, and thus far recorded some positive outcomes and impacts have chosen to organize this meeting to create awareness and elicit conversations aimed at developing collaborative industry-academia partnerships for sustainable strategies for scaled implementation of the redefined logistics and innovation education at all levels of the tertiary education ecosystem of Africa, starting from Nigeria. The modest successes of the redefined logistics and innovation education implementation at FUTO include the development and successful National Universities Commission (NUC) full accreditation of four undergraduate programmes, one resource verified, and one approved by FUTO Senate, awaiting resources verification visit by the NUC. Of course currently the NUC accredited programmes of SLIT have about 2000 undergraduates at all levels (100 - 500). The number of faculty members has equally increased significantly. Hence the objective of the lecture is to elicit conversations guided implementation of redefined logistics and innovation education as pathways for lifelong careers, livelihoods, economic growth and sustainable development in Africa.

5.0 The Rational for this Conversation

This conversation is timely and poses a critical question: *How can logistics education in Africa, particularly Nigeria, be restructured such that learning and research outcomes translate directly into improved livelihoods, prosperity, and sustainability?*

For too long, higher education in Africa, Nigeria in particular has been criticized for producing graduates struggling to find relevance in the labour market, where employers note skill shortages while graduates lament inadequate opportunities

(Ebiringa, et al., 2024; Adeoye, 2025). Concurrently, African societies face mounting challenges of unemployment, inequality, climate change, rapid urbanization, and negative effects of technological disruptions. Against this backdrop, logistics and innovation education become strategic imperatives for catalyzing transformation in tertiary education lifelong career, economic growth and sustainable development in Africa (Ike-Mbah, 2023; Adeoye, 2025).

6.0 Understanding Logistics and Innovation in the 21st Century

Common perceptions reduce logistics to trucks, warehouses, or cargo ships. However, in the Industry 4.0 era, logistics is better understood as managing complexity of systems and operations, needing multidisciplinary knowledge and skills for multi-sectorial (public, private and non-governmental organizations) applications (Ike-Mbah, 2023; UM6P, 2024).

Some industry practices of logistics and innovation education (management of complexities of systems and operations) include:

(a) Healthcare

In hospitals, logistics manage patient flow, equipment sterilization, and timely medicine delivery; universities coordinate timetables and research collaborations; cities integrate transportation, energy, and waste management systems for livability (Ike-Mbah, 2023; Unitrans Africa, 2024).

(b) Politics and Public Governance

In politics and public governance, logistics play crucial roles in the planning, execution, and management of national elections worldwide. The application of logistics to elections encompasses a systematic approach to managing the complex supply chain of election-related materials, personnel, and information to ensure timely, secure, and efficient election processes. Effective logistical management directly influences election credibility, integrity, and public confidence. Failures in logistics—such as delayed or missing ballot materials, unsecured storage, or poorly coordinated personnel transport—can compromise election outcomes, leading to loss of trust and possible social unrest.

(c) University Operations:

Logistics in university operations involves coordinating teaching, research and community service activities, managing student admissions, ensuring timely delivery of learning materials, maintaining campus facilities, and organizing semester examinations. Effective logistics ensure smooth functioning of administrative processes, resource allocation, and event planning within the university.

(d) National Examinations (SSCE, JAMB):

Logistics in organizing national exams includes managing candidate registration, secure printing and distribution of exam papers, coordinating exam centers, marking of exams scripts, and ensuring timely communication of results. Proper logistics management ensures exam integrity, reduces delays, and facilitates smooth conduction of nation-wide assessments.

(e) Hosting of Global Events (Football World Cup, Olympics):

Event logistics encompasses venue preparation, accommodation and transport for athletes and officials, crowd management, security arrangements, and coordination of broadcasting and media services. Efficient logistics enable the seamless execution of large-scale international sporting events, enhancing participant experience and global viewership.

(f) Military Operation (War):

Military logistics involves the planning and movement of troops, weapons, and supplies; maintaining communication systems; and managing medical and evacuation services. Effective logistics are critical for ensuring operational readiness, sustaining combat forces, and achieving tactical and strategic objectives during war.

(g) Disaster/Rescue Operations:

Logistics in disaster and rescue operations includes rapid mobilization of resources, coordination of emergency responders, distribution of relief supplies, and establishment of communication networks. Good logistics management can save lives by enabling timely and efficient response to crises and mitigating the impact of disasters.

These examples demonstrate how logistics from the redefined perspective, plays a foundational role in managing complexities of systems and operations and ensuring success across diverse fields. In fact, logistics can be said to be the central nervous system of modern societies, and without it, systems collapse, but with it, systems thrive (Ike-Mbah, 2023).

However, innovation in logistics, including application of technology for data collection, data analytics, and adaptive techniques to enhance logistic systems resilience and transparency, for efficiency and effectiveness in resources allocation, tracking, reporting, control, monitoring and evaluation to ensure optimization (Apiria & Limb, 2024; Iwuoha et al., 2021; ACE Electoral Knowledge Network, 2024).

(7.0) Innovation Education: Preparing for Lifelong Careers

Where logistics manages complexities of systems and operations, innovation reinvents them. Innovation education complements logistics education by fostering mindsets that challenge conventions, identify opportunities, and co-create solutions. Unlike the past, where graduates pursued fixed lifelong careers, today's work environment is evolving rapidly, requiring fluid careers and continuous self-reinvention (Ebiringa, et al., 2024; Berlin School of Business and Innovation, 2025a; Intuitive Careers, 2025; World Bank, 2025). Graduates need not only theoretical knowledge but more technical skills, adaptability, entrepreneurial thinking, and lifelong learning capacity, making innovation education foundational for 21st-century employability, lifelong career, livelihood, growth and sustainable development (Berlin School of Business and Innovation, 2025b; World Bank, 2025).

(8.0) Bridging the Learning–Livelihood Gap

The mismatch between what tertiary education institutions provides and industry demands remain an acute challenge in Africa, especially in Nigeria. This disconnect shows as: skill mismatches with theoretical rather than practical competencies; difficulties industries face in finding career-ready graduates; and widespread youth unemployment despite academic qualifications, aggravated by lack of entrepreneurial orientation (Adeoye, 2025; Ebiringa, et, 2024). A redefined logistics and innovation education can bridge this gap by integrating skills to manage complexity, adapt to evolving systems, and innovating solutions. This

requires pedagogical reforms emphasizing problem-based/experiential learning, industry partnerships, internships, digital literacy, interdisciplinary approaches, and policy alignments that link education to national development goals (Adeoye, 2025; Ebiringa, et al., 2024; Ike-Mbah, 2023).

9.0 Redefining Logistics and Innovation Education as Catalysts for Economic Growth.

Redefining logistics and innovation education is justified by it's likely positive contributions to economic growth and sustainable development. Progress depends on efficiently managing resources, coordinating systems, and fostering continuous innovation (Ike-Mbah, 2023; Unitrans Africa, 2024; Ebiringa & Okorafor, (2012).

Logistics and Innovation education in a redefined form becomes the backbone and fulcrum of productivity and economic growth: in agriculture, manufacturing, financial service, education, transportation, hospitality and tourism, trade and commerce, communication, information technology, solid minerals mining and quarrying, general business services, oil & gas extraction and processing, defense and security, export and import, financial services as well as professional services.

It's interesting to note that Africa loses about 40% of agro harvests due to poor transport logistics but effective cold chains and distribution logistics could convert these losses into food security and export growth; Seaports, airports, and roads networks remain vital lifelines affecting trade and investment costs; even payments rely on finance technology logistics to operate securely (Ike-Mbah, 2023; Unitrans Africa, 2024; Rodnav, 2024).

Innovation drives new markets by enabling creativity and entrepreneurship that creates value driven products/services, employments, outputs, careers, and incomes for quality livelihood and sustainable liveability. Of course, payments systems that facilitate exchanges in the economy are currently being increasingly disrupted by digitalization made possible by fin-tech logistics platforms built on block chain and cyber security (Rodnav, 2024; EMLYON Business School, 2025).

Employment dividends arise from direct, indirect, and self-employment opportunities generated by logistics and innovation professional/industry practices,

underscoring the demographic youth potential as an asset rather than a liability (Berlin School of Business and Innovation, 2025a).

Case studies illustrate: Ethiopia's aviation success integrating logistics and innovation via Ethiopian Airlines; Kenya's M-Pesa reshaping financial logistics and contributing substantially to GDP; Nigeria's potential through ongoing reforms in ports, agriculture, and digital innovation zones to boost Africa's logistics-driven economy (Ike-Mbah, 2023; Rodnav, 2024; Adeoye, 2025).

10.0 Universities as Economic Engines

Universities should be viewed as competitiveness drivers. By adopting the redefined logistics education embedded with technology and innovation as a systems engineering and management disciplines, leading to production of techno-managerial graduates who possess disruptive knowledge and skills to create value, improve efficiencies, establish enterprises, and attract investment (Berlin School of Business and Innovation, 2025b).

11.0 Education for Sustainable Development

Economic growth must be sustainable, avoiding resource depletion and inequality intensification. Logistics and innovation education are critical enablers of sustainable development (UM6P, 2024).

Green logistics initiatives—involving waste reduction, route optimization, renewable energy integration—urban sustainability by managing transport, energy, and waste collectively, and resilient systems for healthcare and disaster response exemplify logistics' sustainability roles (UM6P, 2024; Ebiringa, et al., 2015).

Innovation contributes by developing climate-smart agriculture, renewable energy solutions, smart mobility, and digital governance mechanisms, scaling sustainability impacts (UM6P, 2024). These efforts align with Sustainable Development Goals including quality education, decent work, innovation, sustainable cities, and climate action (UM6P, 2024, Ebiringa, 2011).

12.0 Educating for Mindset, Not Just Skills: The SILT Model

Education must foster stewardship values, responsibility, resilience, and lifelong learning mindsets alongside technical skills to drive sustainability (Ebiringa, et al;

2024). The School of Logistics and Innovation Technology (SLIT) at the Federal University of Technology Owerri, framed from the perspective of logistics as management of complexities of systems and, systems engineering, and operations management.

13.0 Philosophy

The SLIT embraces the philosophy that effective management of complexity of systems and operations through innovative logistics is essential for sustainable development and competitive advantage in a dynamic global environment.

13.1 Mission

To educate and empower students with advanced knowledge and skills in logistics, and innovation technology, enabling them to design, manage, and optimize complex operational systems that drive efficiency, resilience, and technological advancement in industry and society.

13.2 Vision

To be a leading center of excellence in logistics and innovation technology education and research, recognized nationally and globally for pioneering solutions that transform the management of complex systems and operations across diverse sectors.

These framings highlight the integration of logistics, systems management, and innovation technology with an emphasis on managing complexity and fostering innovation.

The SLIT Model is pioneering the redefinition of logistics and innovation education in Africa starting from Nigeria, by viewing logistics as systems and operations management rather than mere physical movement. It is built on technology and innovation as foundations multidisciplinary curricula development and implementation for preparing graduates for global competition and lifelong careers.

The above philosophy, mission and vision of SLIT are currently being implemented through six departments, each having her philosophy, mission and vision aligned to that of the School. All SLIT programmes curriculum are interconnected by common courses that emphasize logistics, technology, and innovation. The departments include: Project Management Technology; Logistics

and Transport Technology; Logistics and Supply Chain Management; Maritime Science and Technology; Entrepreneurship and Innovation; Finance Technology and Innovation (See figure 1).

(i) ***Project Management Technology*:** Focus areas include: planning, executing, and overseeing projects, including resource allocation, deployment and risk management. Essentially addressing logistics issues in project systems and operations (construction, information technology, industrial/manufacturing etc.), through the application of technology and innovation in the public and private sectors.

(ii) ***Logistics and Transport Technology***: Emphasizes is on the planning, operations, and optimization of transportation systems and operations. Essentially addressing logistics in the transport sector (aviation, highway and urban transport, railway and Pipeline etc.) through the application of technology and innovation.

(iii) ***Logistics and Supply Chain Management*:** Focuses on integrating procurement, production, distribution, warehousing and inventory management logistics (health, humanitarian, disaster/emergency response,

cold chain, and services management), for optimal flow of good/services and value chain management in all sectors.

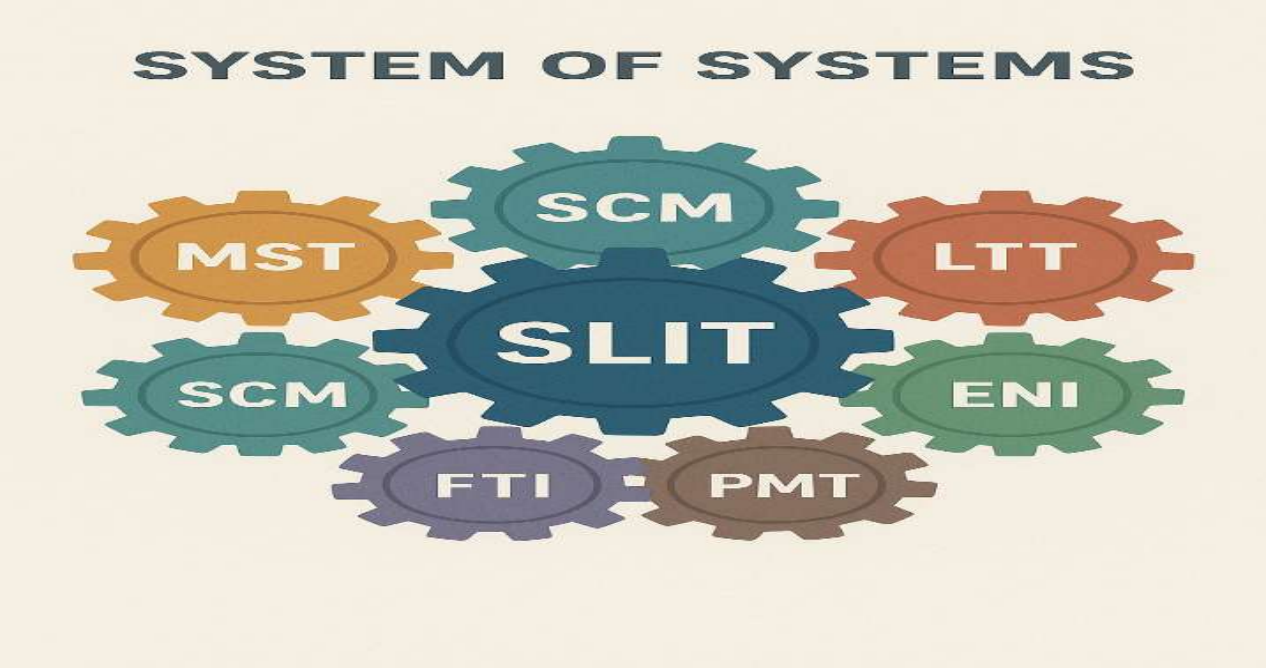
(iv) ***Maritime Science and Technology*****:** Focus on maritime logistics (shipping naval architecture, nautical science and navigation, port operations management, and marine resources management, marine environmental management and conservation etc.).

(v) ***Entrepreneurship and Innovation:*** Focus on commercialization of creative and innovation, business logistics and value creation with emphasis on ideation, startup creation and scaling, research commercialization, enterprise development, Enterprise restructuring and strategic management. Financial engineering and business strategy, innovation management etc. (Ebiringa, 2012).

(vi) ***Finance Technology and Innovation****:* Focuses on the application of technology in financial services reengineering, investments analysis digitalization, and financial processes and systems automation, finance innovation and risk management.

These departments are expected to offer industry led postgraduate programmes, while maintaining distinctive specializations derived from the unique knowledge areas of their undergraduate programmes without conflicting or duplicating those of other sister departments, but maintain logistics, technology and innovation as commonalities.

A system of systems curricular approach (see figure 2) treats departments as subsystems integrated via collaborative interfaces facilitating joint knowledge production and application for value creation, productivity, and sustainability. Features include autonomous subsystems, cross-department interface nodes (innovation & technology management, logistics & operations, data systems integration, sustainability & policy), and governance loops for curriculum coherence aligned with industry advancements (FUTO, 2024).



14.0 Lifelong Career Opportunities

SLIT graduates have diverse global project logistics management careers in communications, information communication technology (ICT), construction, procurement, contract management, security and defense services, healthcare, industrial/manufacturing/production, extractive industry (oil & gas, mining and quarrying) etc.; Logistics and transport graduates have careers in transport logistics and fleet planning, transport route planning, and transport safety/risk analyst, quality control and assurance in urban and highway, aviation, railways, and pipeline multimodal transport systems; Logistics and Supply chain graduates fill careers in procurement management, production management, Inventory management, Warehousing, Cold-Chain logistics, humanitarian logistics, Disaster and Rescue logistics; Maritime Science and technology graduates fill careers in Shipping, nautical science and navigation, naval architecture, maritime logistics, port operations and maritime risk management, freight forwarding, marine environmental management, import and export facilitation; Entrepreneurship and Innovation graduates have career prospects in creativity and innovation, technology commercialization, business creation and startups, innovation management, enterprise development, management consultancies, business

facilitation; Fintech graduates have career prospects in building financial products and solutions built around advanced digital technologies (AI and Machine learning, block-chain, cyber security and crypto currency) (EMLYON Business School, 2025; Maersk Training, 2024; Berlin School of Business and Innovation, 2025b).

15.0 Way Forward

To ensure that redefined logistics and innovation education—which involves building intellectual capabilities and capacities to managing complex systems and processes—leads to lifelong careers, drives economic growth, and supports Africa's sustainable development, some key actions need that includes the following to be taken:

(a) Strengthen and Expand Education Capacity

Increase the number of institutions offering specialized logistics and innovation programmes to address the human capacity gap in Africa's logistics and innovation professional practices across sectors. This helps meet the rising demand for skilled professionals who can manage complex logistics systems and processes of project planning and implementation, transport planning and operations, shipping and maritime operations, supply chains, entrepreneurial businesses and management services, finance and payments services etc.

- Develop competency-based, labour market-responsive curricula that integrate innovation and practical skills to prepare students for evolving job markets and lifelong careers in logistics and related fields.

(b) Foster Continuous Learning and Career Support

- Promote lifelong learning through continuous professional development and up-skilling programmes that keep pace with technological advancements, digital transformation, and industry changes.
- Establish platforms and systems that bridge the gap between education and employment, such as digital career tracking and alumni networks, to provide data-driven support for aligning training with labour market needs and facilitating career progression.

(c) Drive Innovation and Digital Integration

- Embrace project-based learning and innovation-focused education that expose students to real-world challenges and solutions, enhancing their problem-solving and entrepreneurial skills.
- Integrate smart technologies such as IoT, AI, block-chain, and digital tools in logistics education and operations to build a tech-savvy workforce capable of driving the green and digital logistics revolution.

(d) Align with Economic and Sustainable Development Goals

- Link logistics and innovation education to regional economic initiatives like the African Continental Free Trade Area (AfCFTA) to ensure relevance in boosting intra-African trade and industrialization.

- Embed sustainability principles in education programmes to promote eco-friendly logistics practices that contribute to Africa's long-term resilience and sustainable development.

- Encourage partnerships among educational institutions, governments, and private sectors to invest in logistics education infrastructure, research, and innovation that stimulate economic growth and job creation.

(e) Enhance Employment and Entrepreneurship Opportunities

- Prepare students and professionals with skills that facilitate access to diverse career paths for logistics and innovation in: transport management, supply chain management, project management, shipping and ports management, financial services, business and entrepreneurship.

- Support the creation of high-skilled jobs and empower small and medium enterprises (SMEs) through better logistics and innovation management capabilities, enabling broader economic empowerment and social development.

In summary, a comprehensive approach that expands education capacity, emphasizes lifelong learning, integrates innovation and technology, aligns with economic and sustainability goals, and fosters employment and entrepreneurship is essential to translate redefined logistics and innovation education into lifelong careers, economic growth, and sustainable development in Africa.

16.0 Conclusion

Universities should redesign curricula prioritizing system management, innovation, competency, digital fluency, and sustainability. Policymakers need to treat logistics and innovation education as strategic national development pillars, aligning policies and funding accordingly (Ezirim, et al., 2010). Industry partnerships for talent and innovation ecosystems are critical. Students must internalize logistics as complexity management, innovation as a lifestyle, and lifelong learning as vital to career success (Adeoye, 2025; World Bank, 2025, Ebiringa, et al; 2024).

16.1 Final Vision and Closing Remarks

Envision an Africa, especially Nigeria, where education directly drives livelihoods, universities act as economic engines, policymakers treat education as investment, and logistics and innovation capabilities form the foundation of sustainable prosperity, inclusion, and growth (Ebiringa, 2013; Ike-Mbah, 2023; Adeoye, 2025).

Africa's future will no longer be exemplified by ineffective and disfuntional logistics systems and processes waiting to be shaped by reliance on external aids from foreign governments and agencies but by indigenous innovators, capable of developing and reengineering systems and processes for robustness, and dynamic functioning of institutions. The redefined logistics and innovation education will not only empower graduates of African universities with tools to build this future, but also position them for competitiveness in the evolving globalized skills based knowledge economy. Let us commit to nurturing multi-talented logistics system managers, innovators, and nation-builders to fully harness the promise of diversified logistics and innovation as pathways to lifelong careers, economic growth, and sustainable development.

Thank you.

References

Adeoye, Y. (2025). The urgent need for supply chain management in schools. *Nigeria Education News*. https://thenigeriaeducationnews.com/2025/03/24/revolutionizing-nigerias-education-system-the-urgent-need-for-supply-chain-management-in-schools/

Berlin School of Business and Innovation. (2025a). 7 reasons why logistics is a future-proof career choice. https://bsbi.com/logistics-future-proof-career

Berlin School of Business and Innovation. (2025b). How to choose the right supply chain management degree for global careers. https://bsbi.com/supply-chain-degree-global-careers

Ebiringa, O.T. (2012). Perspectives: Entrepreneurship development and growth of enterprises in Nigeria. Entrepreneurial Practice Review, 2(2), 31-35.

Ebiringa, O.T. & Okorafor, G.F. (2012).Effects of human capital development on the performance of small and medium scaled enterprises in the Southeastern region of Nigeria. Journal of Sustainable Development in Africa, 15(5), 11-20.

Ebiringa, O.T. (2011). Entrepreneurship venturing and Nigeria's economic development: the manufacturing sector in focus.

Ebiringa, O.T. (2013). Entrepreneurship development for sustainable economic transformation: A study of YouWin programme in Eastern States of Nigeria. Journal of Sustainable Development in Africa, 12(8), 49-58.

Ebiringa, O.T., Ekwenwa, K.C. & Ebiringa, I.E. (2015). Student engagement and partnering for employability skills development. Serbian Journal of Management, 10(2), 212-221.

Ebiringa, O.T., Asiegbu, B.C., Ikerionwu, C.O., Emerole, I.C. & Ebiringa, I.E. (2024). A novel employability model for enhancing job readiness and career development among Nigerian Graduates, African Journal of Humanities and Contemporary Education Research, 17(1), 281-292.

Ezirim, A.C., Okeke, C.T. & Ebiringa, O.T. (2010). Achieving vision 2020 in Nigeria: Areview of the economic and market-oriented business reforms, Journal of Sustainable Development in Africa, 12(4), 58-71.

EMLYON Business School. (2025). Careers in innovation & entrepreneurship. https://emlyon.com/careers-innovation-entrepreneurship

Ike-Mbah, P. (2023). Logistics in Africa: Spotlight on key developments driving growth. *African Economic Forum*. https://aefgroup.org/blog-read.php?post=logistics-in-africa-spotlight-on-key-developments-driving-growth

Intuitive Careers. (2025). The power of lifelong learning for career success. https://careers.intuitive.com/en/employee-stories/career-growth-advice/the-power-of-lifelong-learning-for-career-success/

Maersk Training. (2024). Guide to shore-based careers in the maritime industry. https://maersktraining.com/shore-based-careers

Norwegian University of Science and Technology. (n.d.). Career opportunities - marine technology (Master's programme). https://www.ntnu.edu/studies/ms-marine-technology/career-opportunities

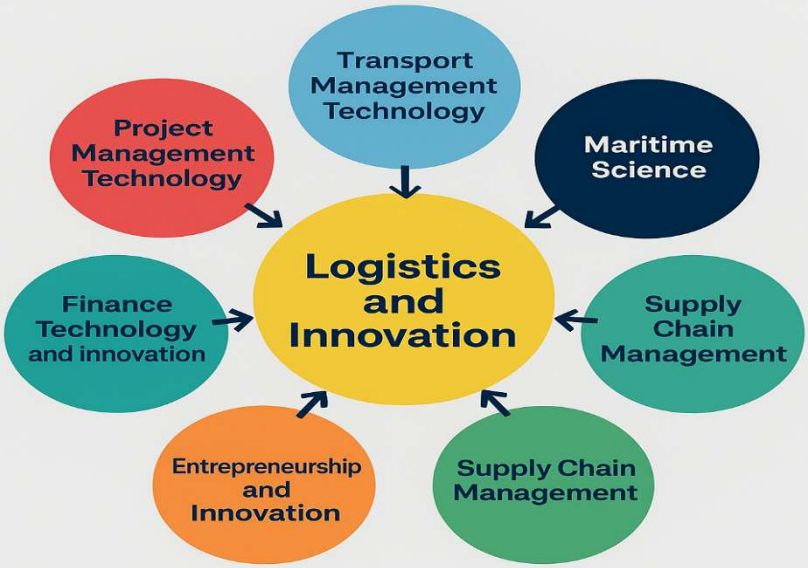
Rodnav. (2024). Logistics innovation in Africa: Assessing the potential of delivery applications to drive economic growth and job creation. https://rodnav.com/logistics-innovation-in-africa-assessing-the-potential-of-delivery-applications-to-drive-economic-growth-and-job-creation/

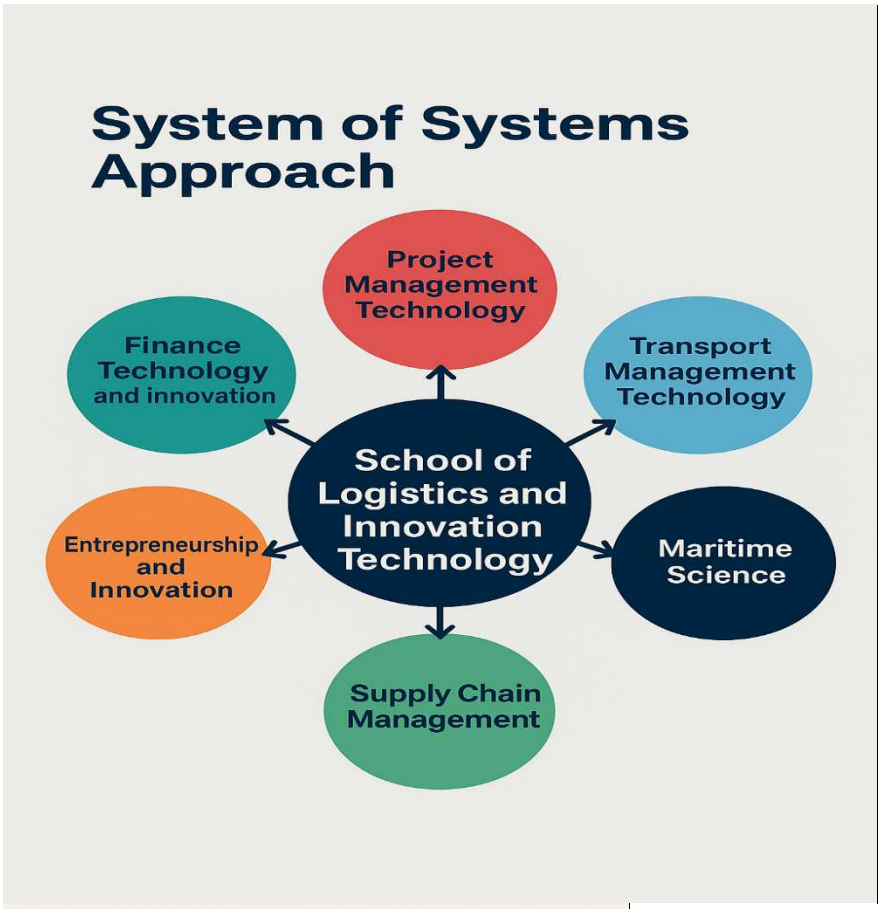
FUTO (2024). Diverse applications and careers opportunities with degrees from the School of Logistics and Innovation Technology. https://futo.edu.ng/schools/SLIT

UM6P (2024). About SOLA. Center for Sustainable Operations and Logistics in Africa, https://abs.um6p.ma/sola/

World Bank. (2025). Education is a key to jobs, growth, and lifelong learning. https://blogs.worldbank.org/en/education/education-is-a-key-to-jobs--growth--and-lifelong-learning

Logistics and Innovation Education as Pathways to Lifelong Careers, Economic Growth, and Africa's Sustainable Development




System of Systems Approach
Project Management Technology
Finance Technology and innovation
Transport Management Technology
School of Logistics and Innovation Technology
Entrepreneurship and Innovation
Maritime Science
Supply Chain Management


SYSTEM OF SYSTEMS
SCM
MST
LTT
SLIT
SCM
ENI
FTI
PMT