ANALYSIS OF TRANSPORT AND LOGISTICS EDUCATION REGULATIONS AND ECONOMIC DEVELOPMENT IN NIGERIA

By

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ABSTRACT

Transport and logistics education capacity development and growth are very vital to redressing the pervasive chaotic transportation scene in many developing countries, including Nigeria and needed to stimulate socio-economic development of the countries. The paper looks at impact of Transport and Logistic education trend on the economy of Nigeria by relating the available institutions of the discipline in the country to some basic indicators of development such as the logistics performance index, gross domestic product nominal, gross domestic product per capital and Human Development Index. The conventional correlation analysis is used to establish the relationship among the variables for 10 year period with a view to understanding the growth in the graduates of the disciplines and the institutions that offer the programmes in relation to the economic growth and development of the country. The findings show that there is positive relationship among indices of economic development, however reveal negative but significant relationship between graduates and Institutions of Logistics and Transport, indicating that training is very important to the development of the country. It further shows that most Logistics and Transport firms do not place premium on the certification and qualification of employees with transport and logistics certificate background, hence recruited more people without Logistics and Transport knowledge/skills background. The paper advocates for more efforts to sustain the trend in getting more institutions offering transport and logistics graduate programmes to address the human capacity gap in the discipline and profession in the country and its economic growth and development.

Keywords: Analysis, Transport, Education, Economic and Development

1.0 Introduction

The need for adequate transport and logistics education particularly in the continent is not unconnected with the persistent challenges of the transport sector to the overall economy. While

transport challenges have some peculiarities to some countries, there are general statements that can be made that describe many countries in the continent leading to some structural defects that are pervasive challenges of transportation system in the continent in comparison to several other countries in Europe, Asia and South America.

It is against this backdrop that transport and logistics education becomes very vital to redress the chaotic transportation scene and complement economic development. Transport education, as a form of manpower development, prepares trainees for industrial-wide technical, workplace and academic skill competencies and management responsibility in the transport industry. It is noted that cross-cutting academic and career background in transport and logistics or "cross-pollination" is not unique to the profession. Even with that, going by the transport and logistics graduate turnover, the educational institutions would fill about a quarter of the expected job openings designed for those that have the competencies in the field.

2.0 Literature Review and Conceptual Underpinnings

2.1 Transport in National Development

The demand for transport professionals to manage transport and logistics functions is well known and documented. There are very old and emerging academic programmes that have been established, though in very few countries to produce such professionals in contrast to increasing demand for the professionals across the continent. Without doubt, the continent suffers from a relative scarcity in the supply of college graduates with appropriate skills that can allow them to manage transport and logistics in the respective domain, leaving the managerial and operational activities at the top level to the foreigners. Moreover, the African indigenously produced academia and high skilled professionals have been under represented in logistics and transport education and careers relative to the percentage of Africans in other sector of higher education and in the labour force. Without doubt, the number of independent colleges and universities with logistics and transport programmes in Africa and Nigeria to be specific is very limited and only few offer transport and logistics degree programme or have a concentration on supply chain management and administration and basic logistics operation and management. This is despite the fact that the demand for transport and logistics education is on the rise, as well as transport and logistics demand of graduate by employers. Around the middle of 1990s, some studies (Oyesiku 1994; 2009) have reported that the growing demand for people in logistics and

transport profession was increasing but the number of qualified students was at the same rate of demand primarily, because transport and logistics was academic and professional programmes were considered unpopular and those undergoing the programme are “Never To Do Well’ group of students. During the said time, there was limited exposure to the potentials of transport and logistics major and therefore, there were no well-articulated career paths and opportunities (Oyesiku, 2016).

However, in the last one and half decades, there has been an increasing level of understanding regarding transport and logistics particularly in relation to managerial and government policies and decision making. This has led to increasing recognition of the discipline and practice of transport and logistics as a profession; and as an educational discipline that is fundamental to functional efficiency of business and trade. Moreover, it was not until recent time that the government and business firms view transport and logistics as a strategic tool vital to the survival of business and governmental policies rather than a support function that any graduate can adapt to without requisite educational background. Obviously, an important factor that has led to the increasing recognition of transport and logistics as a profession and educational discipline and as such, accepted by the academia and industry particularly in the continent of Africa is the change in the global direction of economic growth and development. This includes deregulation not only in transportation industry but also to the entire economy, leading to the need for greater private participation in business by the organized private sector, regaining customer competition and more importantly, globalization of customer services, business and trade.

The consequences of the deregulation were greater economic deregulation of local and international transportation business and reconstruction of the transport industry that requires private sector investment thereby ensuring reliable, efficient and safety of delivery of goods and services across the region and continent. By all indications, these major factor-driven changes in the regional and global economy including transport industry is likely to continue leading to increasing demand for transport and logistics professionals. This is also against the backdrop of increasing appreciation of the role of transport and logistics in the society.

2.2 Transport and Logistics Scene – Nigeria in Context

The need for adequate transport and logistics education particularly in the continent is not unconnected with the persistent challenges of the transport sector to the overall economy. While transport challenges have some peculiarities to some countries, there are general statements that can be made that describe many countries in the continent. These challenges include but are not limited to the following; lack of effective regulating and control measures with numerous agencies involved as supervisory agencies thereby causing unprecedented confusion; no clear definition of responsibilities among the various levels or tiers of government, particularly in terms of policy formulation and coordination; lack of meaningful long term strategic plan for the development of transportation sector leading to ad-hoc responses to immediate challenges and poor regulation and enforcement of existing regulations. Arising from these structural defects are some pervasive challenges of transportation system in the continent in comparison to several other countries in Asia and South America. This include insufficient provision of public transport system, ineffective transport planning and management, high cost of patronage of public transportation system, inadequacy of security on virtually all transport modes, continuously high rate of road transport accident, uncontrolled proliferation of multiple transport unions and associations and lack of coordination among various transport agencies(Oyesiku, 2009: 2016) .

The transportation system in the continent is in a state of flux; accompanied by rapid and uncontrolled urbanization, accelerating rural-urban migration, and prolonged economic downturn. This speaks volume about transport supply, transportation or mobility quality, environmental side effects, traffic congestion, rate of accidents and transport criminality (Odufuwa et al., 2007; Odufuwa and Oyesiku, 2014). In the context of road transport system infrastructure in the continent, it can rightly be said that urbanization process has not been accompanied with a corresponding supply of efficient transport system (Oyesiku, 2001; 2002; 2013). This has necessitated a galloping demand for transport system leading to gross transport externalities. These have serious implications on the nation's security and consequently, on economic and social development of the country. In recent time, the provision of sustainable transportation system for all has been intensified in the continent; but surprisingly, associated transport facilities remain grossly inadequate, such that millions of Africans now travel using substandard mode and unfriendly travel environment, with transport difficulties having become an inevitable part of the most cities and regions.

What is perhaps very obvious is the absence of inadequacy of transport policies and regulations particularly land based transportation mode. This becomes more pertinent considering the fact that road transportation not only dominates transportation system in the continent, which Nigeria is not an exception, and perhaps is the most developed of all modes with over 90% of transportation demands being met by this mode of transport. It is again this mode of transport that employs a significant proportion of informal sector of the labour force by running the public transport consisting of mini bus, taxi, and motorcycle operations. The land based transportation system in the continent is also beleaguered by poor connectivity, low density and low accessibility index and in a manner, making the overall transport system unsustainable (Oyesiku, 2009).

It is against this backdrop that transport and logistics education becomes very vital to redress the chaotic transportation scene. This is more so that the transportation system over the years has suffered from poor planning and design, shabby construction, technical and financial neglect and above all, very poor maintenance culture cumulating in the rapid deterioration of the road infrastructure that has responded to high demand and poor governance.

It is also observed that substantial proportion of those in the transport and logistics sector of the regions have inadequate skills. However, the extent of this varies from one country to another. Moreover, there is a serious skill shortage in the sector throughout the world, and as such there is continuous demand for professionals in transport and logistics field in every country. What further complicate the challenges of the transportation scene in recent times are the consequences of globalization and various economic adjustment programmes that have led to increasing growth in the field as well as great tendency for outsourcing. The logistics and transport sector, particularly supply chain management has become the most outsourced business in recent times and is still on the increase.

2.3 Transport and Logistics Competency

Like most recently emerging multidisciplinary and multi-dimensional profession in the past two decades, transport and logistics field is wide and varied. According to South African Department of Transport, the role of transport and logistics education is to include but not limited to the following: to identify shortages and training needs in the sector; create an

environment for growth and development of the employees and by extension, the industry; to assist in the development and implementation of effective system for quality assurance and recognition of learners achievement with a view to encouraging the entry and retention of target groups into employment and entrepreneurship; to identify and develop relevant skills that are necessary for the employees as well as skills programmes that will ensure retention of jobs in the sector and to measure the effect of education and training on the continuous productivity and profitability of the sector.

In the literature (particularly Kisperska-Moron, 2010; GCIL, 2011; Pohlen, 2011), there are four important levels of competencies on the supply side of transport and logistics education. These are: Industry Wide Technical Competency (logistics planning and management, warehousing and distribution, transportation operations and management, technology application regulation and quality assurance, customer relationship management, health and safety and environment); Work Place Competency (team work, customer focus, planning and organizing, problem solving and decision making, working with tools and technology, scheduling and coordinating, checking, examining and recording and business fundamentals); Academic Competency (reading, writing, science technology engineering and mathematics (STEN), communication, listening and speaking, critical and analytical thinking and basic computer skills); and Personal Effectiveness Competency (interpersonal skills, integrity, professionalism, initiative, dependability and reliability, adaptability and flexibility and wiliness to learning).

These areas of competencies are directly related to multiple categories of the demand sides of transport and logistics education. Six of such sub categories are: Logistics operation and management (transportation, storage, distribution, cargo and freight agencies); Industrial engineering (industrial production management, industrial engineering technicians; Warehouse and distribution labour (supervision of labourers and material movers, freight, stock and materials moving management, freight and cargo inspection, truck and ship loading supervision and management); Trucking (industrial truck and tractor operation, heavy and tractor-trailer truck driving supervision, light truck or delivery services supervision); Freight by rail (locomotive engineers and engineering supervision, rail yard operation and hustling, rail-road conductor services and yard master services); and Air service supervision (air cargo handling supervision)

However, the focus of this study is actually the academic work place and industrial wide technical competencies. It is arising from these that various career choices in transport can be positioned. It is important to note that transport and logistics education is planning, management and technical in nature and orientation. Therefore, educated transport experts and logisticians are expected or required to master the basic aspect of these three competencies. Of note is also the importance to differentiate between the different modes of transport out of three basic types, land (road, rail and pipeline), water (maritime, shipping and inland waterways) and air (aviation) in the discussion of transport and logistics career.

The land mode which is the means of transportation of large number of people, goods and services as well as public transport includes modes such as buses, taxies and trains. The following careers are available: fleet managers, engineers, coach operators, transportation managers, road traffic and safety managers, taxi fleet operators, taxi operation management, dispatchers, parkers and loaders, moving and lifting operators, courier services, warehousing manager, distribution manager, logistics manager, terminal manager, movement and storage material manager, inventory and control manager, pipeline engineer, pipeline construction engineer and project managers. The rail industry is of greater importance because of its transports over long distance, goods, passengers and livestock as well as hazardous and inflammable materials. To some extent like the road and freight industry, the rail industries may be divided into different areas such as technical operations and management. A further sub division can also be made in terms of station and train operations which include train control officers and train shunting personnel. Other careers within the rail industry include rail engineers (electrical, mechanical, civil and signalling), rail management, traffic control, wagon maintenance officers, flagman/ lamp-man, carriage maintenance officers.

The maritime industries is perhaps the most diversified, with numerous and varied transport system full of activities on vessels used on the sea and land based services. It is important to be mindful of the fact that water and maritime route are composed of oceans, coasts, ports, seas, lakes, rivers and channels. The maritime field therefore, offers a wide variety of careers for both local and international by nature and includes ship engineers, maritime lawyers, togged masters, marine pilots, harbour masters, and ship surveyors (Oyesiku and Gbadamosi, 2008). There are other port administration and management careers in the maritime industry which can be joined upon the possession of the requisite academic certificates.

The air transport or aviation industry is perhaps the most technical and sensitive career option in transport and logistics. Though it deals with transportation of passengers, freight and other goods and services by air both for domestic and international services, it is particularly an area of transport profession that is often regarded as critical and where technical and operational skills are mostly scarce. Apart from pilot, air traffic control, aeronautical engineering and avionics engineering that are highly technical and specialized and require specialized skills. Other careers in the air transport industries include but not limited to airport management, air traffic services, aviation administration and enforcement, ground handling of services, flight dispatcher, weather services and general aviation maintenance personnel, engineers and technicians. In addition to these are the searches and rescue services, which is a supporting air transport career. This career can be taken as part of air transport or a specialization in the aviation industries.

In addition to these direct basic modal careers, there are also cross cutting careers in transportation which can stand on their own but which when adapted to transport industry will require additional training and education training and education. They include management (project, operation, human resources, marketing, budget control, environmental analysis and purchasing), engineering and planning which are drawn from fields such as civil and mechanical engineering, architecture, quality surveying, urban and regional planning, geotechnical services, road safety, and road traffic control and management. Of significant importance are transport economists and transport planners that are drawn from the field of economics, urban and regional planning and geography. These are basic data gathering, input and analysis experts who study various aspects of efficiency capacity utilization, productivity and economic structural organization of modes of transport and the interactions among various transportation systems. They are also important in the area of intermodal and multimodal interaction of systems such as buses, ferries, shipping, railways, etc.

2.4 Transport and Logistics Education

Education, as a form of manpower development, prepares trainees for industrial-wide technical, workplace and academic skill competencies and management responsibility in the transport industry. It develops the trainee's personality, behavioural pattern, performance capacity without a reference to a specific job. Through transport and logistics education,

knowledge, skills and attitudes are to be also acquired, while individuals are expected to have personal effectiveness competencies and management knowledge to be able to fit into any segment of the transport industry. Thus, with adequate transport education the saying "once a railwayman, always a railwayman" do not necessarily fit into modern training and manpower development in transport. It is for this reason that transport and logistics education is designed to cover knowledge of the industry as a whole; while training is designed to fit an employee for a particular task (Tilanus, 1997; FGN, 1993; 2003; Dept. of Transport, 2010). At either the professional level (CILT in particular) or University level, transportants and logisticians are expected to show competency and satisfactory knowledge of transport management and control, manpower development and industrial relation, transport economics, transport policy and planning and working understanding of some modes of transport as specialization, transport provision, declining friction of distance, transport technology issues and challenges in theory and methodology, environment and energy Issues, transport demand and supply, transport infrastructure to mention but these few.

2.5 Objectives of Transport and Logistics Education

Somuyiwa, (2017) and Ogunsanya, (2004) independently noted the essence of Transport and Logistics education falls within the framework of the manpower training in order to equip students with adequate knowledge that can be utilized on the field and industry in order to innovatively contribute to national growth and developments. In other words, the development of Transport and Logistics Education as a course of study in Nigerian Universities and other higher institutions came with a view to solving myriads of transportation problems relating to the under listed, but not limited across various segments and modes of transport: Safety in transport services and operations; Reliability of transport service provision; Adequacy of transport service provision; Accident and traffic laws/ control of transport operations; Environmental friendliness of transport operations; Maintenance and management of transport infrastructure; Importation and exportation of goods; Transport planning and urban/rural land use; Terminals management (seaport, Airport, Railyard, Bus stops, Container Depots,e.t.c); Managing movement of available modes of transport; Designing more technological means to improve transport systems; Management of vehicle operations for profitability in transport industries; Efficient utilization of transport assets, personnel and resources; and Administration and management of transport

operations. Above all, quality education is the education that produces a complete person. Complete in the sense that the person is intellectually, morally, physically, emotionally and socially developed.

2.6 Transport and Logistics Education Demand and Supply

Expectedly, due to different academic and industrial structure of the countries in the continent, it is almost an impossible task to obtain wide ranging data on the demand side of transport and logistics needs in the continent. It is therefore difficult to quantify the demand side of the equation. Nevertheless, we can possibly explore how the needed workforce or the demand would be met by educational institutions and training programmes being offered by the institutions, particularly as the transport and logistics industry is growing and developing.

It is also important to be mindful of the fact that there is no continent-wide available data the identify certificates, programmes or degrees offered as well as the completion rates and turnover of graduates each institution generates annually. This makes it difficult to quantify, just as we had with the demand side, the supply of the existing and potential workforce in the transport and logistics sector on the continent. We are then faced with identifying the exact demand and extent of supply of transport and logistics workforce now and in the nearest future. What further complicates this important evaluation of demand and supply of transport and logistics workforce and educational needs is the lack of Standard Occupation Codes (SOC) in the industry across the continent as well as Classification of Instructional Programs (CIP) codes which would normally be the underpinning by which we connect educational offerings with the jobs for which they provide workers (Alcock 1987).

Despite these challenges, transport and logistics education programmes in the continent provide the needed workforce that would meet the needs of the industry earlier noted. However, it is important to note that the nature of transport and logistics industry or sector importantly requires multiple occupation at all levels of competencies. The sector is multi-disciplinary and inter-disciplinary and therefore many people in the workforce enter it without any of the listed certificates or degrees but with degrees from different disciplines and professions just to fill existing demand at all levels. As Oni and Okanlawon (2010), GCIL (2011) and Somuyiwa et. al. (2011) independently remarked, cross-cutting academic and career background in transport and logistics or “cross-pollination” is not unique to the profession.

As noted elsewhere, contemporary educational and competency needs for transport and logistics employment demonstrate the need for tertiary institution education in the industry. A number of programmes are already addressing this demand and different levels of learning, some of which are not captured by the programmes in the tertiary institutions across the continent and not included in the modest inventory presented in this paper. Again, obtaining an inventory of educational institutions through a one-stop site or source is a daunting task, particularly as most of the programmes in institutions are less than a decade old. An inventory of some of the educational offerings transport and logistics and related programmes is stated in this study.

2.7 Transport and Logistics Education Institutions

Transport and Logistics education emerged in the continent through the ordinary and advance diploma programmes of the Charted Institute of Transport, London in the early 1960s. The graduates of this programme most of whom had their education in either the United Kingdom or the commonwealth countries of Great Britain provided the basic background to transport education in general. Around this time, there was hardly known academic institution with an established certificate or degree program in transport and logistics, where as other academic and professional programmes particularly in engineering, social sciences and built environmental disciplines were well established, albeit in a few institutions. For this reason, those who dominated the profession particularly at the time of independence of many counties in the late 1950s and 1960s were simply those who had studied civil engineering, mechanical engineering, electrical engineering and marine engineering (Oyesiku, 2009;2016).

These professional certificate holders were complemented by the very few transportants and logisticians who were chartered members of CIT, London. Obviously, there were just a small number of countries in the continent particularly the English speaking who had national Chartered Institute of Transport and affiliated with the CIT, London. In other words, up till the early 70s, the transport and logistics professions were dominated by the engineers while those who are chartered members of the institute played the secondary managerial roles. Transport and logistics up to the late 1970s was mainly considered an engineering undertaken.

By the early 1980s when the social science disciplines such as economics and geography were getting specialized in different fields within their disciplines, transport economists and transport geographers emerged on the scene. Some of them were directly admitted as chartered

members and they became the second generation of administrators and managers along with their engineering counterparts in the transport industries particularly in the maritime and rail transport modes. Around this time as well, urban and regional planners who specialized in transportation planning were practicing transport and logistics profession but mainly dominated the road mode of transport.

It is important to note that by the mid-80s, chartered transport institutes were firmly being established in several countries, especially in Nigeria and were continuously admitting the engineers, economist, geographers, urban and regional planners and even the sociologist into the profession. This allowed these groups of Polytechnics and University degree holders to start dominating the profession. The implication of the dominance of the peripheral and pseudo transportants and logisticians are not unconnected with lack of proper understanding of the bases of mobility and the need to have an all embracing transport related competency skills. This eventually led to very weak and structurally defective transportation challenges in the continent. More importantly, transport and logistics competencies became a work place training led by those who had the ordinary and advanced diploma of the Chartered Institute together with the very few who had received transport and logistics education at tertiary level outside the continent.

However, prior to the early 1990's that witnessed the beginning of tertiary institutions providing transport related studies with a view to building human and research capacity in the field of transport and logistics, some generalized purpose institutions and centres of learning were already offering programmes in transport related studies, such as certificate in purchasing and supply, maritime law, maritime studies, road transport management, transport management, logistics management, transport commerce, transport planning, logistics analysis, clearing and forwarding management, shipping and shipping law, piloting, air traffic control management, air craft piloting, flight operation and airport management

The middle of 1990s in Nigeria, witnessed tremendous growth in the provision of transport and logistics studies by tertiary institutions, with most commencing with post graduate degree programmes particularly post graduate diplomas, masters in transport and logistics to cater for high level manpower needed by the transport industry. In addition, they produced academic qualified university and polytechnic would-be lecturers and instructors. The idea of starting with post graduate degree programme in many of the institutions can be explained by the

fact that a majority of candidates at a managerial level of administration in many transport and logistics organizations already had a bachelor's degree at the undergraduate level and it considered inexpedient to offer programmes at the undergraduates level. With the successful turnout of many post graduate level graduates with masters' degree, the undergraduate level programmes commenced in earnest in the early 2000s. Indeed, most of the undergraduate programmes in countries around the continent are barely 10 years old. The B.Sc. and M.Sc. programmes offered by the tertiary and logistics studies range from broad transport studies, transport planning and management, transport and logistics management to more specialized field of transportation and logistics such as maritime studies, maritime engineering, maritime law, transport management, logistics management, transport technology and transport engineering. Table 2.1 summarises the number of higher education institutions of learning that are Accredited Transport and Logistics Training Providers (ATPs) in Nigeria. The Accredited Training Providers (ATPs) are mostly affiliated to some Institutions and notable and relevant Professional body that regulates Logistics and Transport worldwide (CILT). The ATPs are saddled with responsibility to provide education to Junior and middle cadre officers in Logistic and Transport, hence mandated to run programmes in Diploma and Advanced Diploma that is equivalent to first degree (B.Sc or B.Tech).

It is important to point out that substantial proportion of the Institutions and ATPs highlighted are in Southwest Geo-polical zones which indicates considerable socio-political and cultural development over and above other zones in Nigeria. This on other hand might translate to economic development coupled with the diversification of their economy and the growth in the demand for middle and high level manpower in the industries in this zone. Perhaps the clustered location of these Institutions/ATPs might be connected to the fact that Lagos being the commercial nerve centre of the country, hence having radiating effect on other states within the zones.

Table 2.1. Transport and Logistics Education Institutions in Nigeria

S/N	Types of Professional and Education Training Programmes in Transport and Logistics	Number of the Institutions
1	Ordinary Diploma (2- years post high school)	21
2	B.Sc. (4-year programmes after High school or after ordinary diploma programme - 4 or 6 years Total period of training)	11

3	M.Sc (2-year post B.Sc programme – 6 or 8 years total period of training)	7
4	PhD (4 year program in addition to 4 year B.SC and 2-year M.Sc)	4

Note: There are 25 higher education institutions in the country that offer transport and logistics discipline programmes in form of Transport Geogrphy or Transport planning.

Sources: Oyesiku (2016); NUC;UTME (2017) Brochure; CILT, N(2018)

3.0 Methodology

Data for this study were predominantly secondary collected for the period of Ten (10) years (2007-2016) in order to ensure conformity to statistical technique adopted. The data include: Logistics Performance Index (LPI); Gross Domestic Product (GDP/Nominal); GDP per capital (GDP/PPP); and Human Development Index (HDI in context of Nigeria among other countries in Africa and across the world as presented in Table 3.1.

On another hand, employers of Graduates of Logistics and Transport were randomly sampled within the two strata of organisation that involves in Logistics and Transport (Public and Private agencies). The rationale behind this is to ascertain the employers' rating and compare the level of performance of these Graduates of Logistics and Transport to their counterparts in the same organisation but with different academic knowledge/skills background. Therein, Pearson Product Moment Correlation was adopted to determine the level of relationship between Logistics and Transport Graduates and other employees of the agencies.

Table 3.1: Economic Development Indices of Selected Countries in the World

Country	LPI				HDI			GDP/PPP ('000)				GDP Nominal ('000)			
	2007	Rank	2016	Rank	2007	2016	Rank	2007	Rank	2016	Rank	2007	Rank	2016	Rank
Nigeria	2.42	93	2.63	90	0.657	0.5	152	0.60	165	1.09	21	0.26	133	2.18	131
Egypt	2.37	97	3.18	49	0.697	0.69	110	0.70	110	1.07	22	0.03	112	3.49	115
Ethiopia	2.33	104	2.38	126	0.403	0.47	173	0.07	168	0.16	67	0.02	138	0.71	164
Ghana	2.16	125	2.66	88	0.627	0.58	138	0.06	127	0.12	76	0.02	121	1.51	142
Kenya	2.52	76	3.33	42	0.690	0.55	147	0.09	163	0.14	70		136	1.46	143
S.Africa	3.53	24	3.78	20	0.843	0.67	118	0.55	57	0.72	29	0.03	68	5.28	88
Tanzania	2.08	137	2.99	61	0.673	0.52	159	0.75	175	0.14	71	0.02	140	0.88	157
United Kingdom	3.99	9	4.07	8	0.957	0.91	14	2.23	11	2.30	9	3.02	27	40.37	19
USA	3.84	14	3.99	10	0.968	0.92	5	14.48	4	18.62	2	14.48	9	57.64	7
Germany	4.10	3	4.33	1	0.954	0.92	6	3.17	19	4.03	5	3.44	26	42.16	17
France	3.51	18	3.90	16	0.978	0.89	20	2.27	21	2.77	10	2.67	29	36.86	25
Malaysia	3.48	27	3.43	32	0.851	0.78	62	0.50	60	0.82	27	0.20	69	9.51	64
Singapore	4.19	1	4.14	5	0.913	0.91	9	0.30	17	0.47	39	0.18	28	52.96	9
Mauritania	2.63	67	1.87	157	0.552	0.51	161	0.01	165	0.02	142	0.00	122	1.10	151

Sources: World Bank/IMF;United Nations Development Programme (Human Development Report(2018)

The import of Table 3.1 lies in the fact that of relative position of Nigeria among comity of Nations based on these basic economic development indices. The table further revealed rankings of some selected countries among other nations. Expectedly, the table revealed that most African countries are ranked very low, using these indices, relatively to their counterparts in Europe, Asia and America..Hence, it shows the level of their respective developments.

4.0 Discussions

There is no doubt that transport and logistics remains an important engine of growth of any particular country. Availability of the transport systems and more importantly, ability to manage the existing systems and advance for their future development through well articulated policy and plans are a function of certified, trained and qualified personnel in the field. To this end attempt is made to relate the number of Graduates and available Institutions/ATPs to some basic indicators of development such as the logistics performance index, gross domestic product nominal and gross domestic product and Human Development Index. According to the World Bank, the LPI index is an aggregate of six main indicators including speed, simplicity and predictability of formalities of the clearance process by border control agencies, including customs; quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology; ease of arranging competitively priced shipments; quality of logistics services involving transport operators, customs brokers; capacity to track and trace consignments; and timeliness of shipments within the scheduled or expected delivery time. The gross domestic product per capita GDP/PPP is the purchasing power parity (PPP) value of all final goods and services produced within a country in a given year, divided by the average (or mid-year) population for the same year. The GDP nominal is the national wealth made on the basis of GDP and savings that reflect the cost of living in the country. The data on these indicators along with graduates and Institutions/ATPs are shown in Table 4.1. However, what is of essence to this study is how issues of education, training and certification are related to development and growth of the country.

Table 4.1: Economic Development Indices, Institutions and Graduates of Logistics and Transport

Variable / Year	GDP/Nominal (‘000)+	GDP/PPP (‘000)+	HDI (‘000)+	LPI	Graduate (‘00)+	Institutions (‘0)+
2007	0.262	0.595	0.453	2.40	0.25	1.3
2008	0.330	0.651	0.452	0.42	0.32	1.3
2009	0.297	0.711	0.458	2.49	0.43	1.4
2010	0.369	0,800	0.500	2.59	0.57	1.6
2011	0.414	0.857	0.507	2.52	0.70	1.6
2012	0.461	0.910	0.514	2.45	0.83	1.8
2013	0.515	0.974	0.521	2.56	1.03	1.8
2014	0.568	0.974	0.525	2.81	1.35	1.9
2015	0.494	1.054	0.527	2.71	1.58	2.0
2016	0.405	1.094	0.500	2.63	1.73	2.1

Sources: World Bank/IMF; United Nations Development Programme (Human Development Report(2018)

This could be as a result of the low level of awareness about the discipline of Logistics and Transport. However, the increase in the graduates, descriptively, does not commensurate to the value of those economic indices. The implication of this is further discussed in the other subsection of this study. Similarly, while some indices are increasing at very slow rate, others increase remarkably as shown in Fig 4.1. This figure gives pictorial representations of the variables presented in Table 4.1. It revealed the growth rate of these variables with the corresponding years understudy. The implication of the fluctuation as well as relationship among these variables as revealed by line graph, will be discussed in the subsection.

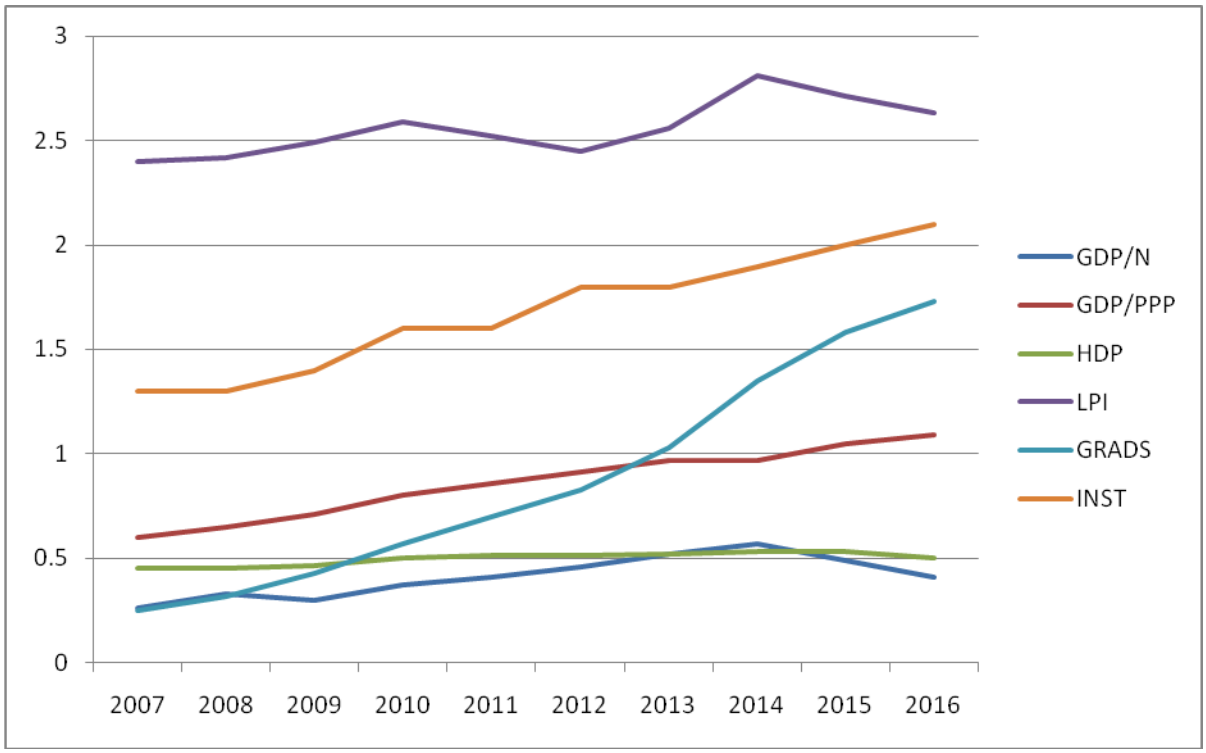

Fig 4.1: Economic Development Indices, Institutions and Graduates of Logistics and Transport

Table 4.2: Correlation Results of Economic Development Indices, Graduates and Institutions of Logistics and Transport

	GDP/ Nominal	GDP/ PPP	HDI	LPI	Graduate	Institutions
GDP/Nominal	1					
GDP/ PPP	.811**	1				
HDI	.920**	.868**	1			
LPI	.750*	.739*	.762*	1		
Graduate	-.525	-.541	-.489	-.419	1	
Institution	.786**	.987**	.844**	.752*	-.462	1

** Sig @0.01 Level of Significance * Sig @0.05 Level of Significance
Source: Output of Results based on Table 4.1

A correlation analysis of the relationship among these variables is employed in this study. An important measure of the association between two variables is correlation coefficient analysis, as advanced by Pearson's correlation test, to discern whether a pair of two variables is correlated or not. The bi-variable association test requires a linear relationship between the two variables to calculate the coefficient assuming almost certainly to have some measurement uncertainty, in at least one of the variables. The comparison of variables, where the associations between two variables are compared then makes use of Pearson's ***r.*** The theoretical procedure for estimation of the association between the two variables using the Pearson's Correlation coefficient is as discussed in several works and need not be repeated here (see Aderamo, 2010; Oyesiku et al. 2016; and Oyesiku, 2016). The correlation coefficients output are as presented in Table 4.2. While there is considerable high values among the variables which indicates elements of multicollinearity. This is expected in view of the nature of the data set, however, it has been subjected to stability test, in which the results could not have negative implications on the interpretation and discussion. The table revealed high positive relationship among the indices of economic development which shows that those variables are related and good determinants of economic development, as well as pronounced the importance of Transport and Logistics in the wealth and development of the nation.

However, there is an inverse relationship between graduates of Logistics and Transport and some of these economic development variables, like GDP/Nominal (-.525), GDP/PPP(--

.541),HDI (-.489) and LPI (-.419). More importantly, the graduates is at inverse with institution/ATPs(-.462). The implication is that the rate at which graduates are produced, do not commensurate to the existing Institutions/ATPs. Similarly, the elements of Logistics and Transport Education are not adequately taken care among these variables of development. This negates the fact that graduates and institutions as significant factors in the development and growth of any nation, because of their relative importance in Human Development Index. Nevertheless, it is important to stress that virtually all the values are either significant at 99% or 95% confidence interval.

In line with the cardinal objectives of providing training to the society in the area of Logistics and Transport, these Institution/ATPs engage in the provision of training and Education of the subject matters, particularly in the context of global business development. Although it is increasingly worrisome to convey to students and professionals in this field, how phenomena have changed in Logistics and Transport, and also how many challenges remain. The forces of globalization, technology and competition continue to redefine markets, making it harder than ever for managers, professionals and instructors to rely on traditional concepts approaches, techniques, methods or processes that are obsolete. In the current global economy of the 21st century, most institutions and training providers are challenged to improve their rendition or teaching methodology in order to ensure quality in line with best practices and enhance employability of graduates of Logistics and Transport from these institutions.

In view of this, this paper also presents the outcome of a survey of 400 graduates that were randomly sampled and interviewed at their respective organizations in Logistics and Transport mostly in South western Geo-political zone of the country.. Over 90% responses were received and their background qualifications are as presented in Table 4.3.

Table 4.3: Academic qualifications of respondents (Employees)

Educational Qualification	**Background Certificate**		**% Frequency**
	Transport	**Others**	
OND	3	68	71
HND	0	109	109
B.Sc /B.Tech/ B.Ed	23	61	84
PGD	11	48	59
M.Sc	1	37	38
PhD	0	02	02
Total	**38**	**325**	**363**

Source: Authors' field survey (2018)

About 11% of the respondents have Logistics and Transport background, unlike over 89% respondents that have no background in the field of Logistics and Transport. This indicates insignificant number among graduates that are been produced by these institutions/ATPs. Hence, it has implications on policy formulation and execution/implementation of Logistics and Transport related project, which are components of economic development. This is not unconnected with organisation recruitment policy that is not based on qualifications in Logistics and Transport. Thus, substantial proportion of the employees were employed without attaching importance to certificate in Logistics and Transport. This goes a long way to show that premium is not attached to certification and qualification when recruiting in Governmental agencies that involve Logistics and Transport activities. This is further strengthening in the result of correlation in Table 4.5 .

In order to determine the level of relationship between employees and their qualifications, correlation was adopted as presented in Table 4.5.

Table 4.5: Data Analysis for Correlation

Agencies/Employee qualification	Transport degree / Certificate	Non-transport degree / Certificate
VIO	-0.3090*	0.7200*
FRSC	-0.1066	0.5926*
PACESETTER	0.0539	0.3952
LAMATA	0.5417*	-0.5142*

Source: Authors' computation (2018)

Table 4.5 presents the relationship that exists between the employees of transport organizations and their certificates in transport and logistics related discipline. It was found that a negative correlation between some transport agencies and degree in transport and logistics related discipline.

VIO had a weak and negative, but significant correlation of -0.3090 with degree in transport which showed that a degree in transport discipline is not a prerequisite to getting employment in the agency. LAMATA had slightly moderate correlation (0.5417) with degree in transport. This implies that a good number of their employees had degrees in transport or related discipline. This was the highest in all the agencies considered. Surprisingly, FRSC result showed a negative and insignificant relationship with degree in transport (-0.1066). This revealed that Federal Road Safety Corps paid no attention to whether a potential employee has a degree in transport and logistics related discipline. However, PACESETTER showed a positive but insignificant relationship (0.0539) with degree in transport and logistics related discipline.

Moreover, there is a strong, positive and significant relationship between VIO, FRSC and LAMATA employees and non- certificate in transport; this implied that most employees of these agencies were not having any degree in transport and logistics related discipline. Also, PACESETTER had a strong and insignificant relationship with non-transport degrees.

5.0 Conclusion and Recommendations

Professionalism through well structured series of examinations and or higher degrees is fundamental to ensuring that practitioners are well endowed to operate within the tenets of the profession and this has a bearing to the development of the country within which they exist. Although, there is a positive and negative relationships among the trend of graduates and Institutions/ATPs growth and the economic development of the country. For this reason, efforts must be made to sustain the trend in getting graduates and Institutions/ATPs, if the country are to witness substantial economic growth and development.

Transport and Logistics education is an integral process of manpower development and research in transport industry. To ensure that there is effective and efficient transport industry in any country, efforts should be made to employ candidate that are well trained with requisite competencies, train and retrain regularly employees in transport organisations and make the trainee more productive to meet the dynamic challenges inherent in their different jobs. Transport education for employees in the management cadre should be the ultimate. As Alcock (1987) remarked “good transport needs good well-planned training resources which are properly and fully used, good transport management needs something more – a good transport education”

There is still a dearth of professionally qualified staff across the continent as well as in the training and education facilities available to transportants and would be professionals. So far, there is hardly any country that could meet the demand of the workforce, while the institutions offering degree programmes in the field are still scanty. The institutions are just too few to cope with the demand for skill and knowledge acquisition in transport fields. As Akinbayo (1994,) puts it, manpower development is a critical element for the operation and maintenance of any transport system. Transport and logistics education must be structured so as to provide for the unique transport and logistics need in Nigeria. As few preliminary studies (Nyamwange & Misati, 2008; Somuyiwa et. al, 2011; Oni and Okanlawon, 2010; Heyns and Luke, 2012) have shown, it appears that there is a mismatch between teaching in our educational institutions and the needs of the labour markets; pointing towards the need for locally sourced and focused innovations to help solve indigenous transportation and logistics problems, while concepts internationally sourced must be suitable for the local environment.

Transport and logistics education is to some extent is still being seen as a compliment to Geography, Economics and Engineering rather than as a specialized professional discipline that it is. This has meant a lack of specialized professionals in the field of transport education and logistics as most current professionals in the field merely crossed from 'similar' professions into the field of transport and logistics.

Transport and logistics education needs more synergy with the transport industry/Organisations/agencies with more industrial support and collaboration. This will assist the academia to understand and recognise the problems being faced by the industry in the real world outside of theorized problems and which in turn will help direct research in areas of real need. Research funding and internship opportunities are other ways the industry can assist as the research funding will increase and improve academic research which will in turn help solve industrial problems. Internship opportunities will help students experience real life challenges as opposed to only text book knowledge which can only be of use when put to practice. All these could be achieved with the support of Government with proactive policy, effective planning and dynamic public services, regarding recruitment and employment of graduates of logistics and Transport appropriately.

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