

## Entrepreneurship in Transport Management Technology: Bridging Theory and Practice

Owoputi Adetose Emmanuel  
*Department of Transport Management Technology,  
School of Management Technology,  
Federal University of Technology Akure, Nigeria*



### Abstract

The paper seeks to assess the role of transport and transportation in entrepreneurship development and sustainability in Nigeria. It identifies that this can be achieved through the development of transportation technology. The methodology used involved collection of data on educational institutions offering courses on transport and logistics studies in Nigeria. This was used to determine the level of skilled, professional “Transportant” that are able to contribute to the management technology and technics needed in transport services. The results identified some challenges affecting the Nigerian transport sector. Some of these include corruption, poor funding of Universities and transport research and development Institutes, poor technology infrastructure facilities, unhealthy academic and industrial partnership. The paper recommends that here is the need for government to improve transportation system in the country bearing in mind the identified problems mentioned above.

**Keywords:** *Transportation, Entrepreneurship, Management Technology, Corruption.*

## Background to the Study

Moving goods and people from one place to another is needed to maintain strong economic and political ties between different States and Nations. One of the challenges facing the developing nations especially Nigeria is the deficiency in the transportation system despite the abundant potential natural endowed transportation resources, such as inland waterways, large expanse of land for road, good weather for air transport. A nation with a land area of 910,768 sq. km, and population of about 170 million people (2006 est.) etc. but unfortunately these resources are yet to be optimally tapped for Entrepreneurship; bridging theory and practice, Through Education and Training, Technology and Management Techniques. “Transport and Transportation as the way forward.” In view of the above, this paper aim at identifying and highlighting the principal components of transport resources and strategies at harnessing them for national entrepreneurship, for bridging theory and practice on Entrepreneurship, Technology and Management Techniques Therefore, we will look at human resources/capacity building in transportation as the primary assignment of Academia ( through education and training ) – while the other factors are the responsibility of the government and private organisations who are expected for bridging theory and practice for sustainable development on entrepreneurship, technology and management techniques.

The success of any national transport policy is very much depend on the quality and quantity of human resources available to assist with the implementation. In the transport sector, three categories of such human resources can be recognized. (Badejo 2012 ) The first are the highly skilled professionals, which are the products of Academia, which consists of transport planners, engineers and transport managers, transport operators. The second are the skilled technicians such as technologists assisting those in the first category. The third are the artisans and operators consisting of auto mechanics, panel beaters, painters, electricians, drivers etc.

A critical appraisal of human resources available in the transport sector indicates an acute shortage of personnel of first and second category. This has resulted in an unduly high dependence on foreign experts to carry out planning, design, construction and maintenance work and Commercial activities in the transport sector. There is the need for Academia to plan, train human resources for the need of proper skilled, right ethics, attitudes and technical know – how of workforce which are bedrock towards bridging theory and practice for the accomplishment of the sustainable technology development and transport operations entrepreneurship.

Transportation entrepreneurship policies and procedures for bridging theory and practice must ensure that qualified personnel are recruited and that all employees are developed toward latest technological advancement in the industry. Training for skill and technical know-how techniques towards sufficient capacity building are paramount importance in transportation development. Industry can only be competitive when the modern infrastructure facilities including qualified workforce are adequately provided for enterprises (Falola el 1986).

Appropriate manpower and transport system setups in various transport modes in various geographical area to meet up with different seasonal agricultural products, for storage, transportation, market distribution, export purpose and consumer needs can only be by transport. Unfortunately, Nigeria does not even have any of such required setup. The few transport training institutions in Nigeria does not have modern transport infrastructure or equipment. The aviation industry which could aid fast movement of distribution, transportation of perishable products such as products such as vegetables, green farm products, sugar cane. Cassava, yam, melon etc. cannot achieve this goal. Nigeria does not have its own aircraft. The Nigerian agricultural sector, perhaps much more than any other sectors has experienced serious retrogressions in the past two decades, due to lack of entrepreneurship education and training. (Adeniji, 2000).

### Objectives of the Study

The objective of this study is to

1. Investigate the level of education, Training, Technology Theory and Practice of Transport Entrepreneurship
2. Evaluate the relationship between Transport management and Entrepreneurship practice
3. To examine the importance and impact of Entrepreneurship Training and Education on Transport Services.

### Literature Review

How is Entrepreneurship training and education development related to industrial growth?. What role does transport play in this area? Both entrepreneurship and transportation are inter-related since the development of one leads to the development of the other, which is only possible if there are improved transportation system to link the two together by means of transport services and entrepreneurship management techniques. (Filani 2009). The effect of entrepreneurship development on the transportation growth which create jobs, revenues, food etc. is an efficient entrepreneurship training system which means that raw materials will be available for the use of industry, if only it can be transported, move to the firm/industry site and after value added, if it can be transported to the store, markets or the consumer then food will be available for the people, thus business will be developed.

Therefore enhancing job creation through employment as workers in the industry i.e. salesmen as middle men between the manufacturer and the consumer, which will enhance their ability to purchase enough goods and services. Since they have jobs to do they will share ideas on the best practices in entrepreneurship promotion through education and training. People will get money to buy industrial goods and services. The industry will be able to increase its raw material for more production thereby increasing the activities of the entrepreneurship with the ability of transport improvement to meet both producers and consumer's need which is the primary assignments of any entrepreneurship. The more efficient transportation becomes, the

more business strategies and entrepreneurship management can be sustained and developed, because more people will be skilled and professional to handle transport services which will enable distribution and delivery of goods and services to people and communities to be easy and fast, then improve economic development of the people and the nation.

More people will have jobs to do both in the different transport modes which needs thousands of hands to meet the demand of entrepreneurship at any point in time, water transportation, inland waterways transportation, coastal water transportation, overland: road transportation, rail transportation, pipeline transportation and Aviation transportation: local airway transportation and international air way transportation. This means that transport is a necessary tools, implements and machines for sustainable development of entrepreneurship and alleviate hunger and poverty as a means to justified product services to all other means of livelihood. The industries need to transport all necessary tools, machines, raw materials, power, engines, and people to the industrial site before any production can take place and not until such product gets to consumers, all labour, knowledge, money is wasted. (Oni 2006).

#### Education and Training Institutions

By increasing the number of transport institutions, transport modes, transport vehicles, transport skilled manpower, transport planner, transport managers, transport development, transport forecast, transport professionals, transport educators, transport policy makers, transport maintenance, transport monitoring, transport data information researchers in each of the transport services and its allied operations for entrepreneurship sustainable development and management techniques.

#### Transport modes and services

Transport: the importance of good roads and transport networks in accelerating the pace of entrepreneurship economic development of a nation cannot be belittled. For the supply and demand of goods and services to be meet. Nigeria requires efficient transportation system. The major transportation systems are:-

1. Land transportation – highways and rail (local road)
2. Air transportation – domestic and international
3. Water transportation – inland waterways and coastal, rivers and ocean
4. Pipeline transportation – oil, gas, water and others.

Following the world observation on transport and transportation as catalyst for growth and entrepreneurship development, the United State of America voted: N91.1 billion, N 175.3 billion, N 487billion., 804.8 billion (+7%, 14%, 16% and 18%) respectively to transport and transportation education and services thereby able to increase entrepreneurship activities and reduce hunger and poverty while increasing job opportunity, revenue for both private and public sectors, increase standard of living, better movement and shipment, production increase in vehicles, industrial products and goods and services for both local and international markets which resulted into demand increase in entrepreneurship technology

development.(Filani 1988).

Nigeria, the most populous African nation is greatly endowed with natural and human resources. There is also wide variation in vegetal cover from salt water swamp, the fresh water swamp, the rainforest, the guinea savannah and the Sudan savannah and the Sahel savannah. Each of these provides unique resources base for entrepreneurship. The nation positioned to become Africa's largest entrepreneurship economy and a major international economy with a GDP of about 56 billion dollars, 67 billion dollars and 72 billion dollars in 2003, 2004, 2005 respectively is faced with the problem of skilled entrepreneurship due to poor education and training in transportation for distribution and redistribution of goods and agricultural products to where its highly needed. (Vivien Foster Natahya Pushak 2011)

#### Developed Nation's Strategy for Transport Education and Training

The United Nations estimates revealed that there were 14.2 million cattle, 15.3 million sheep, 28.0 million goat, 1.7 million pigs, 800,000 donkeys, 275,000 horses and 20, 000 camels in the 80s in Nigeria. Fisheries output ranged from 700,000tons to 800,000 tons annually within the same period. Crop production contributed 35.5% of GDP in 1998 and estimated 63.7% of the labour force was employed in the system in that year but the transport and transportation system with the transportation education and training, of manpower were however marginal compared with the demand for transport service, transport manpower, transport professionals, vehicles of different types to meet the demand for distribution and transportation of the available food products to reduce hunger and poverty. (U.S. bureau of transportation statistics 1997)

#### Nigeria Transport Education Issues

Several polices of government such as "Operation feed the Nation" Green revolution, "Presidential Initiative on Cassava processing and Export". The Agricultural components of " NEED" as well as the Vision 2020 are quite laudable but having the general constraints of inadequate plan to include Transport and Transportation Education and services which will aid the movement, transportation, distribution and provide Professional, Skilled and Technologist in transport to Handle, Manage, the products goods, Equipment, Machine and Tools, needs for the Entrepreneurship activities because these items need to be move from one point to another for usefulness.

All the previous development plans to sustain entrepreneurship were brilliantly formulated but suffered from deficiency of scope: poor transport and transportation System budgetary, Indiscipline and lack of professional and trained entrepreneur in transport technology and management techniques.

Henry also noted that, despite being a signatory to the commission for Africa and the UN Millennium Development Goals (MDGs) with the focus on halting poverty and hunger, infant mortality, illiteracy, provision of food and shelter" and the launching of National Economic Empowerment and Development Strategy (NEEDS) by former [President Obasanjo in 2003, the situation remains the same due to the fact that Transport/Transportation and all its allied services including training of professional and needed manpower were not developed by bridging theory and practice in entrepreneurship to sustain development.

Factors militating against the Entrepreneurship and sustainable technology development:

1. The cancer of the Nation – Corruption
2. Poor Funding of Universities and Transport Research and Development Institutes like – Nigeria Institute of Transport Training – Zaria
  - a. Aviation Training Institution – Zaria
  - b. Maritime Academy Training – Oron

Other Universities that have Transport Department or School in their University like Olabisi Onabanjo University, Ago-Iwoye, Ladoke-Akintola University Ogbomosho, Lagos State University Owerri, Federal University of Technology, Akure and other private Educational Transport Training institutes. Which resulted into low human capacity building and utilization?

Poor Technological Infrastructure Facilities.  
Poor Academic and Industrial Partnership.

The challenges militating Against Technology Infrastructural Development:

The greatest challenges militating against Nigeria's Technology Infrastructural development and Entrepreneurship economic breakthrough is the political will. Nigeria is a nation that has identified its problems and knows the solution but lacks the political will to implement them. The lack of political will can be attributed to the uniqueness of Nigeria:- Nigeria is made up of 250 ethno-linguistic groups, and therefore plagued and bucked down by ethnic divide.

President Obama (Ghana 11/7/2009) Commented: 'But history offers a clear own verdict:- Governments that respect the will of their own people are more prosperous, more stable, and more successful than governments that do not' [nations Newspaper 12/07/09 page5]. It is a truism:- When the poor are hunger, the rich will not sleep" what is the status of Nigeria's Technology Infrastructural Facilities?

The Status of the Technology infrastructural Facilities:

It is important to stress that fiscal and monetary policies are not the only requirement for generating internal, and attracting external investments. Availability of dependable technology infrastructural facilities at low cost of food on the table and

bridging theory and practice of education and training into professions and training is the way out..

Have we ever considered the part played by the following on the cost of goods and services in Nigeria:

- a. Transportation
- b. Communication
- c. Water Housing and
- d. Electricity

An ill-conditioned infrastructure hinder development, gives rise to high cost of delivery, transportation of goods and services. The Success or Failure of Visio 20-20-20 would depend on Technology Infrastructural, Transportation Management, in particular Transportation techniques system network, modes, vehicles, information, education, Trained, skilled Manpower entrepreneurship. The management of Transport and allied services and the Transport education system by academia on efficiency of these, inputs determines their supply cost to consumers and therefore the cost delivery of goods and services. Presently, their transportation costs are high due to poor infrastructural facilities and poor management. An efficient and entrepreneurship technology education, infrastructural facilities, management, Human resources, Adequate financial in-put will address an there crucial deficiencies (Igwe 2009)

#### The Role of Education in Entrepreneurship Techniques Practice

Education:- is a key to Knowledge and Tools to Entrepreneurship Development.

Nigerian educational system has suffered great neglect over the years and some claim that the educational system has collapsed. The Universities that are springing up so fast could be regarded as glorified Secondary School. Available statistics show that there are over 152 Universities and those offering Technology Entrepreneurship and Transportation courses are just about 20 in number. There is dearth of the right caliber of Staff and Research Facilities. The Federal Ministry of Education is thinking with the idea of increasing the retirement age of professors from 65years to 75years. Also the Federal Ministry of Education is trying to remove the disparity between the Bsc. degree and the HND diploma holders by making polytechnics degree awarding Institution, but do they have the right caliber of staff and what are the course contents. Research and Development sustain technology and therefore infrastructural development and management are imperative for Transportation/ transport capacity building that will ensure adequate Transport capacity for infrastructural management that can bridge theory and practice through education and training for best practices in entrepreneurship promotion. (Oshin etla 1988)

#### Methodology

Information is very important to research work and for this research finding, details investigation and examining the impact of education, training technology and management techniques in Bridging theory and practice of transport and transportation as the way forward for Entrepreneurship. The need of data collection

and analytical frame work is vital. Both primary and secondary data were used, which insight to the problem under review through Practical investigation which include responses from the questionnaire, interview and field observation. On the other hand spatial data which include topographic maps, operation vehicles and oral interview complement the information gathered.

### Finding

The main factor that has been consistently overlooked in the past has been Nigeria human resources. The Former President Clinton of America had pointed out that the greatest asset Nigeria has is human resources. Nigeria has consistently refused to put both its human and material resources to full utilization ".The efficient technology infrastructural facilities management demand adequate transport skilled professionals capacity for there is no infrastructure facility that can be put in place without been transported there or without transportation being involved in planning, movement, distribution safety delivery management. Adequate transport professional human capacity comes through capacity building that put together the theory and practice of knowledge acquired.

Capacity Building: Transport and Entrepreneurship Education, Training and Practice Partnership is a key to technology development in the United Nation's development programme [UNDP]. In 1991 They defined capacity building as the creation of an enabling environment with appropriate policy and legal frameworks, institutional development, including community participation, human resources development and strength of managerial system adding that UNDP recognizes that capacity building is a long-term, continuing process, in which all stake-holders participates [Ministries, Local Authorities, Non-Government Organizations and Water user Groups, Professional Associations, Academics and others.].

The World Customs Organization [WHO] defines capacity building as activity which strengthens the knowledge, abilities, skills, and behavior of Individuals and improve institutional structures and processes such that the organization can efficiently meet its mission and goals in a sustainable way.

Capacity Building is much more than training and its includes the following:

- a. Human Resource Development, the process of equipping individuals with the understanding, skills and access to information, knowledge and training that enables them to perform effectively
- b. Organizational development, the elaboration of management structures, processes and procedures, not only within organization, but also the management of relations between the different organizations and sectors, [Public, Private and Community]
- c. Institutional and legal framework development making legal and regulatory changes to enable organization, institutions and agencies at all levels and in all sectors to enhance their capacities.

Technology infrastructural development requires team work of professionals.

The fact is that Transport/Transportation cannot on their own provide solution to humanity's challenges but it is through the effort of a technological team of professionals, entrepreneurship, educators and scientist, Transportant and Technologists / Engineers. Transport capacity requires sound Theory and practice knowledge with actual exposure on the entrepreneurship wish is to bridge and sustain development of a Nation.

Given the costs often associated with transport and transportation operation in the development of goods movement and personnel and logistic with measuring actual external effects economic rationality in actual external effects economic rationality in terms of welfare, maximizing behaviours, and equal for each unit of production which is marginal transport costs.

- a. The possible contradiction between transport and training, and entrepreneurship.
- b. Absence of adequate information on the potential effectiveness.
- c. Absence of sufficient administrative, capabilities to implement. Transport policies, technical Know-how in public agencies responsible for administering on transportation practice.

### Conclusion

Forces shaping the future are very diverse and having complex inter-relationships. It is therefore difficult to discuss them exhaustively especially as they will impact on the transport sector in Nigeria in the next two decades. Proactive research and development in Universities, colleges of Technology and Research Institutes would provide the only reliable sources of technological innovations and interventions.

Transport plays a pivotal role in the development of both technology and technology infrastructural facilities and entrepreneurship management. There is no technology infrastructural facility that can be put in place without Transportation, be it design, construction, management and production. A developing nation like Nigeria needs adequate capabilities and competences which come through sound academic foundation and actual exposure on the job and practice of entrepreneurship activities.

Universities, Colleges of Technology and Research Institutes need adequate funds to be a solution centers to meet the Transport Technological needs and entrepreneurship management techniques to develop and manage the infrastructural facilities for sustainable economic growth that would alleviate Hunger and Poverty by distribution, delivery, moving from a point to another point of Food, equipment, tools, goods, services men and women. It is imperative that Nigeria strives to achieve true fiscal Federalism and creates the competitive environment that is necessary to harness its abundant assets, human and material resources like India and China with which their entrepreneurship has help to alleviate Hunger and Poverty by creating jobs and revenue for their country.

## Recommendations

There is a compelling need for the Nigerian Government to support and strengthen the capacity of Entrepreneurship for the development and growth of Transport, and Transport Infrastructure which is capable of assisting in igniting the prospects, potentialities and inherent attributes of Transport sector which can aid the Sustainable development of the Economy.

Given the global economic meltdown and the urgent need to cushion the consequential effects of Nigerian State, it is more expedient and desirable to pursue by implementing ways and means through which sustainable transport infrastructure could be achieved in Nigeria.

- a. It is necessary for government to provide adequate funds for the development of capital projects that are associated with Transportation
- b. Joint Venture between Public and Private Industries on Transport and Transport education.
- c. Intensifying Transport human capacity development to meet the needs of transport system delivery should be pursued.
- d. There is also the need to introduce policies and regulations that will create favourable and robust conducive environment for private sector participation and investment to include Academia-Industry Partnership.
- e. Irrespective of the policy dimension and approach pursued by the government to realize Transport development objectives, there is need for improved socio-cultural and behavioural attitudes from our people, especially within the context of protecting and ensuring the judicious use of transport infrastructure without recourse to vandalization, wishful damages and disregard for other transport users or consumers.
- f. Data management and Information System are essential ingredients and tools required for adequate planning.
- g. Nigeria must make a determined effort to utilize its human and material resources for development and entrepreneurship to alleviate Hunger and Poverty. It will also enhances development of specialized skills which would make Nigerians able to reap the abundant harvest that is waiting in Transport entrepreneurship to alleviating Hunger and poverty by creating jobs, exporting skills to other African countries.
- h. Attention should be paid to the supervision of Transport Projects like; pipeline, Road construction, Railway building, Airport and seaport, jetties construction and dredging, Motor Vehicles for Road, Water and Rail to enable entrepreneurship sustainability.
- i. Federal, State and Private University must take deliberate action to revamp our University of Science, University of Technology and Agricultural Research and Development Institutes and made strong recommendation for Entrepreneurship and Transport education and Training.

- j. Nigeria must encourage University with faculties of Transport and Transport Engineering, Transport Management, Transport Policy and that of Planning and Pavement Evaluation Unit in Kaduna Automobile and Aviation to carry out the same function as the Transport and Road Research Laboratory in the United Kingdom.
- k. Infrastructure is the critical path in a Nation's development plan. The non-performance of the infrastructure of most developing nations is attributed to frustration and poor career prospects in Sustainable development in Transport Entrepreneurship Technology and Management Techniques.
- l. Government should adopt the pursuit of excellence rather than favouritism in the appointment of key management personnel and possible privatization is another way forward.
- m. The professionals in the Industry must work hard to improve the trend in infrastructural development that could bridge the theory and practices in transport entrepreneurship that could alleviate Hunger and Poverty realization.

## References

- Adeniji, K. (2000). "Transport challenges in Nigeria in the next two decades." A keynote address at 5th National council on transport meeting, organised by Federal Ministry of Transport. Abuja.
- Badejo, D. (2009). "UNBUNDLING the challenges of Transportation and Development in Nigeria, the Lagos State Example."
- Banker's Committee National retreat (BCNR) (2010) "The role of Financial system in Nigeria's economic development transport sector (2010)"
- Etteh, E. (2009). "Challenges of Infrastructural Development. The Need for adequate Engineering capacity."
- Falola, T. & Olamrewaju, S. A. (1986 ) "Transport system to Migeria. Maxwell School of citizenship and Public Affair." Syracuse University Syracuse 1986.
- Filani, M. O. (1988). "Mobility and Survival: A Nation's Dilemma." (University of Ibadan, Inaugural Lecture).
- Filani, M.O. (2002). "Institutional and Research Infrastructures for sustainability sciences in Africa" [Abuja SSAN]" the Nigerian Social Scientist Vol.5.
- Falola, Toyin, Olamrewaju S A (1986 ) "Transport system to Migeria. Maxwell School of citizenship and Public Affair." Syracuse University Syracuse 1986.
- Igwe, C.N., Oyelola, O.T., Ajiboshin I.O. & Raheem, S. (2013) "A Review: Nigeria's Transportation System and the Place of Entrepreneurs." Journal of Sustainable Development studies .vol.3.
- Igwe, C N (2009) "Entrepreneurship, Tools for National economic advancement." Lagos Engineer, 2009, Lagos Nigeria.
- Masterplan for Integrated Transportation Infrastructure by Nigerian Institute of Transport Technology: Albert Speer & partners GmbH and Julius Berger Nigeria Ltd.
- Mohammed, A. M. (2013 ) "Empirical Investigation of the relationship between utility Service Quality and Organizational Performance of small business Enterprises in Niger State" Centrepoint Journal of intellectual scientific and cultural interest. Vol.16. 2013.
- National Science and Technology Council (1998). "Transportation Technology Plan, committee on Technology, sub-committee on Transportation Research and Development. Washington D.C.

- Oni, S.I. (2006). "Harnessing Resources for Transport Development in Nigeria."
- Oshin, S. (1988) "Transport studies in Nigeria :A review from Odu." A journal of West Africa Studies 1988. The Internet [Data etc]
- U.S. Department of Transportation (1997). "Mobility and Access, Transportation Statistics." Annual Report 1997, Bureau of Transportation Statistics. Washington D.C.
- Vivien, F. & Natahya, P. (2011). "Africa Infrastructure Country Diagnostic Report". A Time for Transformation. [www.nfte.com/impact/logic](http://www.nfte.com/impact/logic) model and outcome for youth entrepreneurship programs D.C children and youth investment trust corporation (2001).