THE IMPACT OF TRANSPORTATION ON THE NIGERIAN ECONOMY (1980 – 2010)

BY

NNAJI. AKUCHUKWU. OPRAH

REG. NO: EC/2009/685

DEPARTMENT OF ECONOMICS

FACULTY OF SOCIAL SCIENCES

CARITAS UNIVERSITY

AMORJI – NIKE, ENUGU

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TITLE PAGE

THE IMPACT OF TRANSPORTATION ON THE NIGERIAN ECONOMY (1980 – 2010)

A PROJECT WORK SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE AWARD OF THE BACHELOR DEGREE IN ECONOMICS

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APPROVAL PAGE

This research work has been approved and supervised having satisfied the condition for the award of Bachelor of Science (B.Sc) in Economics at Caritas University, Amoji Nike, Enugu.

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Mr. Ezikel O. Uche Project Supervisor	Barr. P.C. Onwudinjo Head of Department
Date:----------	Date:----------
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Dr. C.C. Umeh Dean of Faculty	External Supervisor
Date:----------	Date:----------

DEDICATION

This work is dedicated to God Almighty the giver of life and wisdom the God who sustained my life throughout my stay in Caritas University. And to my parents Late Mr. John Njoku and Mrs. Ijeoma Nnaji for their immeasurable support, love and the opportunity they accord me. All I have to say is am grateful to God for making this work a reality.

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A project of this magnitude cannot be carried out without divine blessing. My profound gratitude goes to Almighty God for his guidance and protection throughout my academic year in Caritas University and at various stages in the development of this project.

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Finally my special thanks and heartfelt gratitude goes to my lovely parents especially my mother Mrs. Ijeoma Runthrein Nnaji who supported me financially and morally in carrying out the project work despite all odd times and difficult circumstances, I must say am very grateful Mummy.

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proper to single out some whose assistance where particularly essential Miss Nzekwe Chinenye Clara, Aguiyi Chisom, Uche Victoria Nnaji, Ikechukwu Ibe and my supervisor for his constant tolerance and patient.

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ABSTRACT

What if the transportation section, stagnant, almost every section of any given economy will not perform well as expected. Te importance of transportation in developing or advanced economics cannot be over emphasized. Transport is one of the main sector that remains as the cornerstone of every nation for achieving growth and development as well as gaining political and economic independence. The study shows the relationship between transportation and economic development and also the level of the manufacturing output contributed in the economy due to transportation. The research employed regression analysis using OLS in verifying the relationship that exist in computing transportation, manufacturing output and inflation.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The transportation system in Nigeria is being seen as the means towards attainment of growth and development of the Nigeria economy. To attain such growth, an efficient function forms has to be laid.

In every aspect of man's activities, transportation has come to play a vital role, which ranks it among the most important determinants of any success in such human activities. The transportation of goods and services has become vital to the economy due to foreign exchange earning to the sector of the economy. As such there is need for this study. A good and well backbone for a vibrant and growing nation.

Therefore, transportation is defined as the movement of people and material from one point to the other for one reason or the other. This movement could be on sea, land or air. Transport is hardly in demand for its own sake; rather it is linked

organically to the survival of other sector namely social, political and economic sector. Hence the need for transportation services in any economy is it socialist or capitalist cannot be under estimated. The interaction between the level and pattern of transportation resources and the standard of living of the population of any country is or critical factor affecting social, economic, political military, religion, recreational or educational progress and must therefore be taken into account at all levels of planning. Therefore, activities in aspect of transportation system while their subsequent operations and development would generate increase demands for transportation of goods, services and people.

The development and efficiency of transportation system is a pre-requisite goal of all developing countries.

Money and funds have been selectively applied to this particular field of development and the principle is now generally accepted that the improvement of transport forms perhaps the most valuable single contribution towards economic, social and

political development. In diverse ways of man's daily activities transport system have served and will be serving and shall still serve. For example transportation system has been employed to serve in various economies' criteria rather conveying raw materials to the manufacturing plants or finished goods, to the consuming areas. Certainly in the early stages of economic in communities where subsistence agriculture is still important transport is probably the key to development "Fertilizer improve strains of seeds, education and other subject are all of the greatest importance. But the needs for transport is prior of these" (Clark 1968).

Nigeria like any other developing country recognizes the importance of and need to develop an efficient transport system evidently stated in the third National Development Plan of 1975 to 1980. The transportation system has to support the growth and development of agriculture, commerce and industry with efficient movement or people and goods throughout the country. As a matter of public policy the government supports the continued development of efficient dynamic and flexible transport

service as being vital to economic growth, expanding productivity and general process of the nation. The efficient and effectiveness of transportation system influence the cost of every commodity consumed or exported, thereby affecting business economic and industrial opportunities of every citizen the basic objective of the government in this field is to develop and assure the continued expanding availability if fast, save and economic transport service needed in a growing and changing economy in order to move people and goods in response to public and private demand the lowest consistent with health safely, convenience, and their broad public objectives (Ahmans 1990)

In the light of this, government has lead emphasis on efficiency, flexibility, safely and lowest cost in the development of transportation services especially the Federal Urban Mass Transit Programme in 1988 (Daily Champion, 1988) that led to the emergency of transport outfit such as Borno Express Corporation in Borno State, Kaduna transport Authority in Kaduna, Kwara Express in Kwara State, Plateau Express Limited in Plateau State. Like most government establishment they were making

parastatals and their services are to be subsidized in relation to the private transport sub sector. All these development are effort towards a reflection of national growth, which had generated the information of various outfits to cope with this general pace in a natural building. These factors ensure a free low factor of production commodities with regards to cost of production and job opportunities. And from the welfare view point, it enhances higher standard of living of the populace.

Therefore, this essay is aimed at studying an economic analysis Nigeria economy with particular reference to Borno express corporation and the length at which public demands transport service (Bello, 2000).

1.2 STATEMENT OF THE PROBLEM

In the transportation sector of Nigeria economy, there are numerous problems which the transportation sector faces. These problems are great source of concern to economic and the government at large. The transport sector virtually serve as

source of foreign earning and equally means of conveying goods and services to the nooks and crannies of the country.

Transportation economics encompasses, air, sea and land transportation system with specification reference to Nigeria, the road transportation system is the most widely used of all forms of transportation system.

Hence, the federal state and local government have ensured that road transport infrastructure develop in all federation. However, inadequate of credit facilities has been identified as a major obstacle for improving transport in Nigeria. The federal government in its desire to encourage the development of transport sector has put in place certain facilities to the transport sector through various schemes and policy guide lines.

Transportation infrastructures (roads, rail, airports and seaports) are the arteries for the free flow of people, goods and information, three things necessary in a manufacturing and export economy. If eyes are the light to human soul, then the airports and seaports are the eyes that international business

travelers see a country with. How important there transportation infrastructures are to the manufacturing economy is as good as anybody can gives. But that will not stop me from talking about it.

The domestic need for transportation infrastructure brings with the possibility to become an important link in the regional transportation system in the movement of goods manufactured in the rural areas (where most manufacturing facilities should be located anyway). There is a need of there transportation infrastructures it cannot continue, the age – living neglect of these transport systems. Also there is a need to revive water way and railway transportation. The age – long neglect of these transportation if Nigeria wants to become a manufacturing economy. A country cannot become a manufacturing giant without well – connected inner perimeter roads xxxx airports, seaports and railroad stations.

Government cannot display possibly all these without the involvement of private entrepreneurs in the building of

transportation infrastructures, such as the management of airports, railroads, seaports, and state collection of tolls of the maintenance of perimeter roads and highways. For Nigeria to reach the goal of becoming a manufacturing economy in 2020 (what we at Nigerian Entrepreneurial Leadership call 24 hours economy) the country must attend to the glaring and urgent needs of using water and rail means of transport to reduce pressure on the road system and boost productive activities and employment country wide, especially in the rural areas.

The neglect of rail and waterways for decades has contributed to the nation's dependence on food importation, as agricultural produce from one part of the country cannot be transported cheaply to other parts. Lack of cheap means of transportation has discouraged many farmers whose harvests perished because they could not access the market. Also, the nation has continued to reduce the same socio-economic loss from the future to expand railway network to all the states, so that agricultural produce could be moved cheaply to urban markets. Rural development proclamation will just be that,

proclamation, unless transportation infrastructure network is build to encourage free flow of people and goods.

More disappointing is the inability to maintain the existing north-south colonial rail truck for the movement of goods. This is major reason for the amalgamation of the north and the south by the colonial masters for their easy management of movement of goods. Nigerian's should debate more on the economic manufacturing necessity of the north and south areas, as well as the east-west areas; rather than the political undertone. Consequently the decline in rural economic activities is largely responsible for high rates of joblessness, crime and declining quality of life, as the urban areas become overpopulated resulting in environment problems, such as over-flow of garbage, lack of proper drainage system.

The Nigerian Railways Corporation (NRC) monopoly law should be abrogated and a regulatory framework set up to guide private instruments in the rail transportation infrastructure. The lack of interest, and failure to provide incentives, might have

discouraged the private sector from investing in rail and water transportation. Because of the importance of this sector in a manufacturing economy, a form of enterprise fund should be created with the purpose of promoting private sector development in the rail and water transportation.

International business travelers must agree that Airport security and foreign investment go hand in hand. Travel is a basic necessity for business to be conducted between countries, while symbolizing a deeper connection that is fundamental to a country's economic fixture. Aviation is the travel mode of the world; the first and last impression is your airport. Foreign investment is going to come from people who fly. It is vital if Nigeria is going to become a manufacturing export economy that encourages business people will doubt whether Nigerian's airport and airspace can attain international standards. These recent misshape give a bad impression not only of Nigeria airport, but also of Nigeria as a whole, and the lack of structural management system. The bottom line is that if you can't get there, you can't trade. Improving airport security is so critical for international

trade. The attract travelers and commercial shippers, air travel to Nigeria must be safe and secure.

This project is not meant to provide solution to the ailing transportation infrastructure, as to modernization of equipment types, and types of industry management training, but to raise awareness of the importance of the transportation industry problems in equipment and training is left to the consultants, who often a critical study, diagnosis, and analysis of the sector's current situations. Any seemly solutions to the problems presented in this project are peripheral as I do not give free in-depth solution in my project. Lecletus Olebune (2010).

The research questions for this study are:

1. What is the impact of transportation on the Nigerian economy?
2. What are the domestic needs for transportation infrastructure?
3. How does inadequate of credit facilities affect improvement of transport in Nigeria.

1.3 OBJECTIVE OF THE STUDY

1. To determine the impact of the economic growth.
2. To get to know the influences of transportation in developing countries.
3. To get the aggregate level of the waste caused by poor transportation system in the Nigerian economy.

1.4 STATEMENT OF HYPOTHESIS

Transportation has no significant impact on the Nigeria economic growth.

1.5 SIGNIFICANTS OF THE STUDY

The study of the transportation system in the Nigerian economy is of great importance as the study will create an insight to the study will create an insight to the causes of those transportation problems and also suggest solutions through policies that helps in reducing these problems. This essay therefore is expected to shed more light on the appraisal of revenue role as regards to product management and efficient services to the transport sector.

Efficiency in the transportation sectors of the Nigeria economy through a reduction of elimination of some vital problems will have a positive effect on the national economy. The constitution of new roads proper, check on vehicle worthiness will to a large extent revive the transportation sector and in torn boost activities in the economy as the transport sector is invaluably the backbone of all other sector in every economy. This work also tends to check whether or not revenue from the government has contributed significantly to the development of transportation system in the Nigeria economy.

1.6 SCOPE AND LIMITATION OF THE STUDY

This research will be conducted within and outside the caritas community. This research covers the entire economy so as to obtain enough data they will avoid research is the difficulty together information and data needed for the study. This research also consumed a lot of time, and other resources constraint cost consideration also posed a serious problem.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 THEORETICAL REVIEW

This chapter deals with literature review. The development of an efficient transportation system is often regarded as crucial to the process of economic development of the country.

Transportation today constitutes one of the major features of economic development. In recent years, there has been increased effort towards diversification of industrial and commercial activities. This, movement of goods and people has become crucial to the continued development of the country's economy.

The literature review is divided into four:

Sections 1: focuses on performance indicators,

Sections 2: Discusses on the profit measure and the economic importance of road transportation.

Sections 3: Analyzes productive efficiency and

Sections 4: Review pricing policy.

THE PERFORMANCE INDICATIONS

The transportation performance is defined in terms of the success in achieving follows a sequential measures process of identifying objectives evolving performance indications measured of attainment of those objectives. Now measuring the performance of public transport enterprises is not very easy because of the broad nature of the objective. Mass transit corporations have multiplicity of their objectives without includes social political and economic objective without the help in which consideration of the returns on investment are been made.

Yahaya and Bell (1994)

The purpose of the project on transportation indicators was to discuss issues relating to transportation and provide the Bureau of Transportation Statistics (BTS) with new ideas for issues to address. Throughout the workshop, a verity of interesting ideas for issues to address. Throughout the workshop, all participants were asked to make one overall point that they

thought was important. The following is a summary of that discussion.

David Greene (2002) commented that a natural congestion measure would be an excellent indicator for BTS to develop. It should be based on direct measurement from the highway system using automated traffic data from loop detectors, which are measurement devices that lie in the roadway and record how many cars pass over that point. It is impossible to get this done quickly but it is feasible over time. Tennessee studied four cities for 2 years, 24 hours a day, 365 days a year; the data collection and processing were essentially automated. There were many problems and statistical issues to be resolved, but there data can be used to develop national measures of congestion performance, first four major cities and for the highest – order highways, but eventually extending out to smaller areas over the years.

Sen Ashish (2002) pointed out that there is a problem with this type of data collection; it works well only that for major highways. There is a lot of congestion on arterials that cannot be

measured by wop detection. This is an entirely new area for statisticians. There are data imputation problems and there are inference problems, there are problems of modeling and inferring. The summary of the workshop attended by both David Greene and Sen Ashish in (2002) stated that the loop detectors are areas that still resolution. This is a fascinating area for statistical research. Terry Klein noted that a useful way to begin developing indicators would be to identify the specific objectives of producing the indicators. For example should the indicator appeal to the public in a effort to change their attitude of the state and behaviors towards transportation issues? Or it is simply to say a tool for policy makers and decision makers to be kept apprised of the state of transportation? The indicators would be very different depending on which objective is used. If the objective is to target the media, the indicator would have to be fairly simple to understand. Klein also mentioned that he liked the idea of a market basket of trips, but that there is a data collection problem in trying to ascertain trip type, in both the numerator and the denominator. Survey data would help collect some of the

denominator data, and over time those data can be gathered. As show in the key transportation indicator: summary of workshop (2002) Committee on National Statistics (CNSTAT).

PROFIT MEASURES AND THE ECONOMICS IMPORTANCE OF ROAD TRANSPORTATION

Transportation also makes possible geographical specialization whereby different state in the limited states produces these goods and services that are best suited for geographical specialization for those than a state of its resources and energy to production of goods and services that is not well suited for in the economic wastage and lower standard of life for the people.

Importance of transportation also has some affect on the value of land that is adjacent to or served by the improvement (improvement in this case) for example, land served by a new transportation facility will eventually increase the value of formers and land owners, located adjacent to the free – way we may find

out that the free way is a nuisance in terms of noise and air pollution.

In the profit measures financial performance of a public and private corporation mass transit operation can be assessed in terms of their operating surplus (or balance) of ten measured as the differences between sales, revenue and expenditure on goods and services other than capital assets. The use of these techniques include depreciation, all receipts from government transfer and payments to government in form of interest, dividends or receipt profitability and even to greater extent operating surplus in unsatisfactory and ambiguous indicators of economic performance. Johonson King (2010).

PRODUCTIVE EFFICIENCY

Productive efficiency is categorized into two components namely.

Technical Efficiency (TE) and Allocate Factor Pace Efficiency (PEP).

Efficiency is generally defined as the ratio of the result achieved to the means used. It is the ability to produce the desire effects with minimum efforts expenses and waste.

Efficiency is also used to measure the economic management. The research for economic efficiency in public enterprise is not merely of finding technical optimal solution but also political progress. He also sees efficiency in public enterprises to have two destines, but related aspects first are the efficiency resource collection through administration inventions, price and markets.

Secondly is the operation efficiency which minimizes the uses of labour and capital through sound management of the enterprises project and programmes in both public and private sectors of the economy. Emmanuel Isiokwu (2009)

PRICING POLICY IN THE TRANSPORTATION SECTOR

A firm equilibrium output is set at the point where marginal cost (MC) equals prices (P) that is MC=P. This form the basis marginal cost pricing often recommended as a tool for improving

economic offering of public enterprises (this shall be discussed in detail in chapter 4. The marginal cost pricing rule is a challenge for economist, requiring both theories and practice because it provides a theoretical justification for public supply with permanent deficit. This consequence of marginal cost pricing rule results if there exist strict local scale Economics. This is of considerable importance since according to empirical studies, much of public enterprises production take place under scale economies "Isaac Thomas" (2011)

On the issue of welfare optimally the concept of a "welfare optimal deficit is contrary to the wide spread belief of deficit always means mismanagement of public enterprise. The theoretical justification of deficit provided by marginal cost pricing does not justify mismanagement. Marginal cost prices are only point of the solution of an optimization model which also gives nominative instructions for optimal quantities of output thereby prescribing cost minimization.

To overcome this problem, we must consider special distribution further research should concentrate on the existence of marginal cost pricing equilibrium if public deficit are financed by taxes on goods and factors in inelastic supply or by two point transfer where the fixed points aggregated over all customers, must be such as to cover the differences between total cost and the revenue which will result from marginal cost pricing "Beafo (1982).

If the market sets prices, the public enterpriser produce under nor increasing return to scale. This is not valid if the public enterprises produce under increasing returns to scale. Economic theory after different solutions, for the case which an enterprise produces deficit therefore regulatory that result from marginal cost prices.

On the issue of financial deficit that result of marginal pricing is different another that where a financial they would have to be covered in one way or another.

This is a subject which has engaged in the interest of economist for many years various solutions have been forwarded, all of which are to some extent deficient when judged in terms of the pave to welfare model.

Demand functions are unlikely to be discovered so as to permit the operation of such a pricing policy and in addition such a policy world expertise to administer. Such administrator cost most be taken into account in the chance of pricing systems. An alternative solutions is to set price proportional to marginal cost. However, we have seen that a factor of proportionality might need to be chosen by references to the factors complementary and substitutability of goods and not with reference to requirement. When discussing the issue of financing deficits, it is important to remember that the pave to criterion requires management efficiency in marginal condition for production.

If it believed that the manager public enterprises will not move efficiently in the absence of general subsidies, then prices which are related, but not equal proportional is marginal cost may

be justified, such prices could still indicate to consumers to relative cost of meeting their demands at different times of the day and year for example as with transport enterprises, cost do not vary significantly overtime. Webber (1973).

A public enterprises, for social welfare maximization would instead pursue competitive pricing policy where it would allow price just to cover full cost and this permitting the cost to be changed to consumers of the goods or services because the rule for welfare optimum states that the prices of every commodity should equal its marginal cost. The consumption here is that the firm average cost decreases when the scale of its production increases.

Marginal cost measures the resource cost of society production. The gain from increase output will continue to rise until the two price and marginal cost are equal and beyond this point, additional output mean a net loss since marginal cost will lie above price which is the value of marginal output. The firms are confronted with horizontal demand schedule since they supply

only a small part of the total supply. This average (AR) and marginal cost (MC) will be equal and by equating marginal cost with average revenue which is the price. In the long run, it will operate at a minimum average cost where revenue will be equal to average such as to incur any losses or make monopolistic profits.

This is because of public enterprises are placed in monopolistic and are result to regulation where are the tendency to behave like a private monopolist and thus equate marginal cost with marginal revenue so as to minimize profit and thus earning average revenue greater than the marginal cost. (Tunde, 1999).

2.2 EMPIRICAL REVIEW

According to Oluyemi (1977), the importance of transportation has some effect on modern economic development especially in developing countries such as Nigeria in references to the above review Dr. Jean Paul Rodrigue and Dr. Theo Notteboom

(2010). They buttress the view of transportation and economic development and they are highlighted below.

1. The economic importance of transport sector like many economic activities that are intensive in infrastructures, the transport sector is an important component of the economy importing on development and the welfare of populations. When transport systems are efficient, they provide economic and social opportunities and benefit the result in positive multipliers effects such as better accessibility to markets, employment and additional investments. When transport systems are deficient in terms of capacity of reliability, they can have an economic cost such as reduced or missed opportunities.

   Efficient transportation reduces cost, while inefficient transportation increases costs. The impacts of transportation are not always intended, and can have unforeseen or unintended consequences such as congestion. Transport also carries an important social and environmental load, which cannot be neglected. The added valve and employment

effects of transport services usually extend beyond employment and added valve generated by that activity; indirect effect are salient. For instance, transportations companies purchases a part of their inputs from local suppliers. The production of these inputs generates additional valve – added and employment in the local economy. The suppliers in turn purchases goods and services from other local forms. There are further rounds of local responding which generate additional valve – added and employment. Similarly, households that receive income from employment in transport activities spend some of their income of local goods and services. These purchases result in additional local jobs and added valve. Some of the household income from these additional jobs is in turn spent on local goods and services, thereby creating further jobs and income for local households. As a result of these successive rounds of re-spending in the framework of local purchases, the overall impact on the economy exceeds the initial rounds of output, income and employment generated

by passenger and freight transport activities. Thus, from a general stand point the economic impacts of transportation can be direct, undirected and related.

Direct impacts (also known as induced) the outcome of accessibility changes where transport enables employment, added valve, larger markets and enables to save time and costs.

Indirect impacts the outcome of the economic multiplier effects where the price of commodities, goods or services drop and/or their variety increases. Indirect valve added and jobs are the result of local purchases by companies directly dependent upon transport activity. Transport activities are responsible for a wide range of indirect valve – added and employment effects, through the linkages of transport with other economic sectors (e.g. office supply firms, equipment and parts suppliers, maintenance, and repair services, insurance companies, consulting and other business services).

Related impacts the outcome of economic activities and firms panty relying on efficient transport services for both passengers and freight and information. All economies for instance, the steel industry requires cost efficient import of iron ore and coal from the blast furnaces and export activities for finished product such as steel booms and coil. Manufacturers and retail outlets and distributions centers handling imported containerized cargo rely on efficient transport and seaport operations.

Harper (1977) concluded by looking at correlation between transportation and development of a nation. He notes “A nation” type and level of economics on the quality, quantity and cost of transportation services and availability.

According to Harley Fear (2013) there is no economy which has developed to high level of productivity without heavy investment in transportation facilities. This shows that economics progress inevitably ties to transportation since trade or commerce cannot flourish without an adequate transport action system at reasonable cost.

Harper buttressed his point on the relationship between transportation and economic development by acting U.S transportation expenditure and sector contribution to the country's Gross National Product (GNP) 1995.

The United States spent 14 billion dollars on the movement of freighter transportation and related industries (such as transport equipment manufacturing) also in 1976, employment was provided for 11% of the approximately 15% of the federal taxes collected and 25% of the state txes collection 1975.

Also Onakomaja and W.K. Ekanem (1977) in their paper titled "Nigeria transportation" noted that for there to be an efficient transportation system in the country, they should be a data base system, while could assist the research planning and development of transportation network. The water share the view of these eminent scholar on this particular points. In sitting any industry or establishment in an economy one of the factors that should be considered as transportation whether it is accessible;

transportation also creates employment for the population and it also creates revenue for the government, it is argued that public enterprises should at least "break even" by recovering their cost, Nnama (1989) this ascertain is justified in terms of either the incentives such retirement given to efficient management or the need to void the burden of subsidization groom general tax revenue. World Bank report (1983).

According to Floyed (1978) the total profitability of the enterprises becomes affected when such loans are wholly or partially exempted from taxation which tends to make profitability an inappropriate measure of financial performance. Another writer asserted that a comparison of public and private enterprise should be restricted to two type of institutions during similar types of output but more generally where difference exist, the differences should be related and attributed to ownership rather than other factors. Reel (1976).

Changes in prices and profitability of public enterprises are sometimes tracked to the mechanization of macro economics policy. Nnann (1898). After subsidizing for other factors, it has been opened that in United States of America, prices are lower and output higher in public firms than in private. Firms are more geared to maximizing their owners wealth and loss geared to the ballot box as such more price discrimination might be expected in private enterprises. Avoy (1979).

In critique of welfare economics discuss on the debate on output and price policy in public enterprises it was concluded that no single answer is forth coming to the question of optimum output level and the pricing policy for arriving at the desired output level. Little Man (1986).

As earlier mentioned, the basic rule for efficient pricing that price equals to marginal cost and as the marginal cost falls short on price average revenue society gains by producing more. Prest (1969).

The public enterprises is placed in a monopolies and as a result of regulation where there is the tendency to behave like a private monopolist and thus equate marginal cost with marginal revenue so as to maximize profits and earning average revenue greater than the marginal cost. Oyeniyi (1989).

According to BOS Freshbook (1986) marginal cost prices are only part of the solution of an optimization model which also gives nominative instruction for optimal quantities of output thereby prescribing cost minimization in other to answer the question of marginal cost pricing firms going bankrupt if they are liable as shareholders of public enterprise? another author wrote in the Boiteax approach this problem is solved by assuming (optimal) lump sum taxes which finance possible deficit.

In the words of Beafo (1982) to overcome the problem, one must consider special distribution further research should concentrate on the existence of marginal cost pricing equilibrium if public deficit are financed by taxes in goods

and factors in inelastic supply or by two point tariffs where the fixed parts aggregated overall customers, must be such as to cover the differences between total cost and the revenue which will result from marginal cost pricing.

According to Page Black (2013). Talked about mobility and he says that it is one of the most fundamental and important characteristics of economic activity as it satisfies the basic need of going from one location to the other, a need shared by passengers, freight and information. All economies and regions do not share the same level of mobility as most are in a different stage in their mobility transition towards motorized forms of transport. Economies that posses greater mobility are often those better opportunities to develop than those with scarce mobility. Reduced mobility impedes development while greater mobility is a catalyst for development. Mobility is thus a reliable indicator of development. Providing this mobility is an industry that offers services to its customers, employs

people and pay wages, invests capital and generates income.

2.3 LIMITATION OF THE PREVIOUS STUDIES

There are scarce problems and limitation in the former research on this study. Some of those limitations are:

According to Floyed (1978) the total probability of the enterprises becomes affected when such loans are wholly or partially exempted from taxation which tends to make profitability an inappropriate measure of financial performance of the project topic.

Reel (1976) in accordance with the limitation these above writer assented that a compassion of public and private enterprise should be restricted to two types of institutions doing similar jobs on broad bias on the ownership of means of transportation.

Also as earlier mentioned, the basic rule for efficient pricing that price equals to marginal cost and as the marginal cost falls short on price average revenue society

gains by producing more transport means. John Thomas (2003).

Finally these stage of limitation of the previous studies shows down the level of which correction and input are made in order to point out those areas that are found lacking in the study.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

Economic theory is always allowed to be used in suggesting the method on which every economic research is conducted. Methodology includes the specification of models, the estimation procedures, the data requirement and sources for each hypothesis testing as well as the techniques of data analysis also theoretical and statistical alternative methods amongst other.

Statistical method deals with the generation of empirical data, evaluation and approval of these data, and attempts to describe the pattern of their development over time. (Amundu 2008).

In the study, the econometric method will be used to obtain the numerical estimates of co-efficient of the variables. This is because it provides numerical values for the co-efficient of the relationship among economic variables and the extent to which the variables impacts on one

another. The economic method of evaluation provides interdependence of the economic variables. For example, the economic method provides that the level of GDP output of a country (Nigeria) depends on the accessibility of the transportation, inflate rate and income distribution and other variables which might be known or unknown but are not included in the model (error term). (Koutsoyiunis, 1993)

3.1 MODEL SPECIFICATION

This is showing the mathematical and economic relationship that exists between the dependent and independent variables. Koutsoyiannis (1997,122) stressed the importance of expressing the relationship under study in mathematical form. This is to specify the model by which the economic phenomenon will be employed empirically.

Based on the above theoretical formation, the model could be specified in the general form as:

GDP = F (Trans, INF, MFO)

GDP = $B_0 + B_1Trans + B_2INF + B_3MFO + U$;

Where

GDP = Gross Domestic Product

INF = Inflation

Trans = Transportation

MFO = Manufacturing Output

B_0 = Intercept

$B_1 \rightarrow B_3$ = Coefficients of the parameter

U_1 = Error Team

3.2 METHOD OF EVALUATION

In our models, ordinary least square (OLS) is used to estimate the coefficient of the parameters suds in specifying a relationship between our dependent and independent variables.

3.2.1 ECONOMIC A PRIOR TEST

Based on the principles of economic theory, the economic test will be used to examine the meaning fullness

of the equation will regards to meeting the a priori expected signs of the parameters. The theoretical expected signs of the parameters. The theoretical expected signs of the macro economic variables in the models are stated below:

Variables	**Expected signs**
TRANS	Positive (+)
INF	Negative (-)
INC	Positive (+)

3.2.2 STATISTICAL TEST (1ST ORDER TEST)

Under the statistical test, we will test the goodness of fit, the individual significance of each repressor using the T-test and finally significance of the regression model using the F-test.

a. Goodness of fit: We shall make use of the coefficient of multiple determination R^2 to find how well the simple regression like fits the data R^2 measure how the variation

in the explicatory variables affects the dependent variable.

b. T-test: This is used for testing the significance we shall make use of 5% level of significance with n – k degree of freedom and where necessary, the probability valve will be used as a rule of thumb.

c. F-test: Will be used to test for the overall significance of the regression model in other words, it will be used for testing the joint impacts of the independent value on the dependent variables, the regression might not have influence on the dependent variables except in conjunction with other regressions. We shall make use of 0.05% level of significance with (k – 1)(n – k) degree of freedom where v_1 = k – 1, v_2 n.

3.3 ECONOMETERIC TEST (2ND ORDER)

1. Autocorrelation: The classical linear regression modes assumes that autocorrelation does not exist among the disturbance terms. In order to find out where the error

terms are correlated in the regression. Using the Durbin Watson test for detecting autocorrelation.

2. Normality Test: This test will be conducted to find out if the error terms are normally distributed with zero means and constant variance. This is one of the assumptions of the classical linear regression model. The Jarque Bera test will be used to test for the normality in time series variables used.

3.4 ECONOMETRIC SOFTWARE PACKAGE

The research will make use of PC give 8.0 econometric package for its analysis.

CHAPTER FOUR

4.0 RESULT PRESENTATION AND ANALYSIS

The result of model was established using the OLS (ordinary lest square) method. P (Give 8.0) software package was used to estimate the various statistical and econometric test. After which on in – depth analysis was made on the result generated from the regression. The model was estimated with four variables which include Gross Domestic Product, Transportation, Inflation and Manufacturing Output.

4.1 PRESENTATION OF RESULT

Modeling GDP by OLS

Time series sample is 1980 to 2010

Table 1.4

Variables	**Coefficient**	**Std. Error**	**+ Value**	**+- Prob**	**Part RY**
CONSTANT	-4.33950	1.35770	-0.320	0.7517	0.0038
TRANS	37.835	30.349	1.247	0.2232	0.0544

INF	6064.9	41407	0.146	0.8846	0.0008
MFO	1.3739	26.556	0.052	0.9591	0.0001

R^2 = 0.80264, F (3.27) = 36.602, DW = 2.18 for 4 variables and 31 observations.

4.2 EVALUATION OF RESULT

EVALUATION BASED ON ECONOMIC CRITERIA

From the result the transportation has a positive relationship with the GDP and a unit change brings about 37.835 increases in GDP. The manufacturing out has also a positive relationship with the GDP and a unit change brings about 1.3739 increases in GDP. While Inflation also has a positive relationship with GDP and a unit increase in inflation brings about 60.6% increases in GDP.

ECONOMIC A' PRIORI TEST

The economic priori test is summarized in the table below:

Table 2.4

Variable	Expected Sign	Observed Sign	Conclusion
TRANS	Positive (+)	Positive (+)	Conforms
INF	Positive (+)	Positive (+)	Conforms
MFO	Positive (+)	Positive (+)	Conforms

4.3 STATISTICAL TEST (1ST ORDER TEST)

4.3.1 COEFFICIENT OF DETERMINATION R^2

In this model, R^2 = 0.80264 and it implies that 80% changes in the dependent variables can be accounted for in the independent variables. This shows a very good fit in the model.

4.3.2 T-TEST ANALYSIS

This is used to test for the individual performance of independent variables on the dependent variables to check if it is significant or not.

H_0 : B = 0 (Null hypothesis)

H_1 : B ≠0 (Alternative hypothesis)

Decision Rule: If + - cal >t – tab, we reject H_0 and accept H_1

n – 2 = 31 – 2 = 29

At 5% level of significance

t – tab = 1.699

Table 3.4

Variable	**T-cal**	**T-tab**	**Decision**	**Conclusion**
TRANS	1.247	± 1.699	Accept H_1	Conforms
INF	0.146	± 1.699	Accept H_1	Conforms
MFO	0.052	± 1.699	Accept H_1	Conforms

4.3.4 F – TEST

This shows that overall performance of the model if significant or insignificant.

H_0 : B = 0 (shows that the model is not significant)

H1 : B ≠ 0 (shows that the model is significant)

Decision Rule: If F – cal > F – tab, reject H_0 and accept if otherwise. At 5% level of significance.

n – k = 31 – 4 = 27

k – 1 = 4 – 1 = 3

F – tab = Formula = $\frac{k-1}{n-k} = \frac{3}{27}$ under

F – tab = 2.96

Table 4.4

F –cal	F - tab	Decision
36.602	2.96	Reject H_0

4.4 ECONOMETRIC TEST (2ND ORDER TEST)

4.4.1 AUTOCORRELATION

The reported DW Statistics is 2.18 following Gujarati.

Decision Rule

Table 4.5

NULL HYPOTHESIS	**DECISION**	**IF**
No positive autocorrelation	Reject	0<d<d1
No positive autocorrelation	No decision	d1≤d≤du
No negative autocorrelation	Reject	4-dkd≤4
No negative autocorrelation	No decision	4-du≤d≤4 - d1
No autocorrelation	Do not reject	Du<d<4 – du

d = Durbin Watson

d1 = lower limit Durbin Watson

du = upper limit Durbin Watson

n = 31

k = 3 (excluding dependent variable)

At 5% level of significance

d = 2.18

d1 = 1.160

du = 1.735

O, d < d1 (0 < 2.18 < 1.160) we conclude that there is positive autocorrelation and therefore our decision is to accept the null hypothesis.

4.4.2 NORMALITY TEST

Jorgue Bera follows the X^2 distribution with 3 degree of freedom

Decision Rule = If X^2 – cal > X^2 – tab, we reject H_0

H_0 : Residual are normally distributed

H_1 : Residual are not normally distributed

The OLS method is used for the testing of this hypothesis

X^2 – cal = 24.392

X^2 – tab = 5.99147

We conclude that X^2 cal is > X^2 – tab so we conclude that the H_0 which is the Residual are normally distributed so we reject the H_0

and accept the H_1 which say we should note that the Residual are not normally distributed.

CHAPTER FIVE

5.0 SUMMARY, POLICY RECOMMENDATION AND CONCLUSION

5.1 SUMMARY

The research has specified and estimated a model on the empirical evaluation of the transportation system on the development of the Nigerian economy.

Our model was specified to capture the impact of transportation on the development of our economy.

The model used Gross Domestic Product as the dependent variable while transportation. Inflation and manufacturing output were the independent variable used.

The result shows that transportation and manufacturing output had a positive impact on the economy of Nigeria.

OLS method was used in estimating the model and PC give 8.0 software package was used.

Based on the result it was found that the independent variable explains 98% of the variable in the transportation system.

5.2 POLICY RECOMMENDATION

1) In order to allow the transportation sector to deliver their services efficiently, the government should allow the sector to take decisions without interference from the government.
2) The government should provide training and manpower development in order to get effective functions or performance and over all efficiently depending greatly on the equality and caliber of staff controlling the transport output.
3) The government should setup transport equipment workshop and mobile workshop to minimize. The problem of breakdown of realities on operational services.
4) The impact of transportation in the economy also contributes to the economy by providing millions of jobs through the process of economic youth. It allows men and women to earn their living by manufacturing vehicles and by driving,

manufacturing and regulating them to allow safe and efficient movement of goods and people.

5.3 CONCLUSION

It is observed from this study, that the government has positively affected the transportation system and in return, the transportation system has impacted positively on the economic development of the country by providing employment for the teaming population of the country and also securing the citizens, ensuring movement of people and goods from places.

The manufacturing output of real sector has benefited positively from the transportation sector of the country. In general the transportation system has a positive impact on economic growth and development of the country.

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