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TRANSPORT OPERATIONS

ISSUES AND CHALLENGES

CALLISTUS C. IBE *Ph.D*

Published in 2011
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0803 759 2513

ISBN 701-935-788-4

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Published by:
MeyPrints Publishers
0803 097 6408

ACKNOWLEDGEMENT

The topics discussed in this work have something in common. They are concerned with some aspects of transport operation and management. These essays originated from series of lectures delivered at training workshops and seminars as a resource person, being a specialist in Transport Management Technology, and serving at the Federal University of Technology Owerri. The workshops and seminars were held between 1995 and 2007.

I am therefore delighted to reach to wider audience through this medium.

I wish to thank the Chief Executive Officer of ABC Transport Plc, Mr. Frank Nneji, the Training Manager, Mr. Boniface Inechi, and the General Manager Imo Transport Company Mr. I. O. Onyebuenyi for the opportunity to participate in their training programmes.

I thank also other professional colleagues and friends with whom I have always discussed many of the topics over the years. Among them is, Professor Innocent Chuka Ogwude, my mentor and consultant who is ever ready to assist. Others include Dr. I. A. Nwokoro, Dr. Paul Ugboaja, and Mr. S. I. Ukaegbu, e.tc.

I thank the following persons for helping to process this work: Pastor Ejem A. Ejem, Mr. Bolaji, Mr. Nze Ibeawuchi, Mr. Christopher Ikeogu, Miss Alice O., Mr. Oji Chuku, and Ifeoma, all of Transport Management Technology, Federal University of Technology, Owerri and Jenifer of Dolf Madi International Ltd, Owerri.

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FOREWORD

That transportation is a key to the socio-economic development of any nation is a truism. The realisation has dawned on the Nigerian government and so a book on transportation issues at this time is very welcomed.

This book "Transport Operations: Issues and Challenges" examined issues concerning transport with legal and safety issues in transport operation in Nigeria. Emphasis is however on road and maritime transport operations. The book is a culmination of several workshop preparations and so could be considered as a transport operations manual for planners and managers.

The book is yet another attempt at filling the yawning gap created by the dearth of books on transport issues in Nigeria. The book will provide information for transport planners, managers, researchers, experts, practitioners and students alike. Readers will find in this book, an indispensable companion.

Professor Osi Solo Akpoghomeh
September 2011

Part 1

TRANSPORT DEMAND

CHAPTER ONE

INCREASED DEMAND MANAGEMENT AND ITS ATTENDANT PROBLEMS

INTRODUCTION

Increased demand Management is concerned mainly with the ways and means of optimizing the use of men and materials in order to achieve the full utilization of resources which will lead to the minimization of complaints and delays thereby achieving smooth operations during peak demands. This period is characterized with excess demand and customers are highly insensitive while at the same time attaching great disutility to waiting time at the terminal.

In a way, they want to move and get to their various destinations all at the same time not minding the technical disadvantages of the carrier. For them, the carrier must provide the services needed at this period in time.

By so doing, pressure is mounted with the surge of people wishing to travel at the same time. The ability to handle this problems and at least possible cost constitute increased demand Management. This therefore calls for concerted efforts of all within the company in general and the operations department in particular. It calls for prompt, efficient and painstaking actions that would attract little or no mistakes. It means that every bottleneck that would slow down action must be removed or avoided in order to reduce mounting pressure. It calls for dexterity in the performance of duties and solicits for the best level of services that can be available. We therefore must evolve strategies that would be capable of coping with and withstanding the pressure. It entails forward, planning, stability of the mind, being polite and not aggressive at every little provocation which surely must come.

The objective of this chapter, therefore, is to acquaint all those concerned on how best to handle this problem of excess demand situation occasioned by the seasonal demands of transport service.

CHARACTERISTICS OF TRANSPORT DEMAND

Transportation demand is essentially a request to move a given amount of cargo or people over a distance. The demand for transport is measured in weight/passenger distance units. The demand of transport at peak period is insensitive to price changes since customers have already made up their minds and have indeed saved for this particular season e.g. Christmas period right from the beginning of the year.

In spite of the insensitivity nature of demand at the peak period, both freight or cargo demand and passenger have some demand characteristics which we must know in order to be in the best position to manage them. For the cargo freight transport demand, shippers of these cargo have different service requirements of transport providers. These requirements constitute the service components of cargo demand. These service requirements range from specific pick up terms to equipment and communication. The service demands are related to the cost implications of the transportation service provided. The transportation services characteristics of cargo customers include transit time, reliability, accessibility, capability and security.

On the other hand, the passenger movement demand requires an examination and understanding of people's motives for travel and movement. The motive for passenger demand includes business travel, vocation travel and personal travel such as visits to home especially at Christmas seasons.

In a way, the demand characteristics of passenger transportation consist of many individual components. These range from very objective and tangible items to some that are very intangible.

They include destinations, schedules and speed, cost, equipment, entertainment and attention, terminals, complaints and experiences.

INCREASED DEMAND MANAGEMENT

Increased demand is the surge in both cargo and passenger traffic such that the Demand far exceeds the supply leading to excess demand. This is situation we refer to as the "peak demand". This therefore calls for the length and duration of peak, the peakness of the peak. Previous knowledge of passenger information and data is the first prerequisite for an effective management of increased demand in transport services.

However, a transport operator responds to increased demand through:

- (a) increasing the fare to ration out those who cannot afford it
- (b) increasing the transit facilities where available by drawing from spare capacities.

Increased Demand Management Action

There are various ways in which increased demand can be managed when actions above cannot solve the problem. They include:

(a) Forward Planning:

The transport operator must plan well ahead of time on how to take care of this situation based on the previous experiences by making adequate preparations and provision of all consumables and personnel for the period of increased demand. He must provide for standby crew, provide for sudden breakdown, make sure that efficient and effective ticketers are not allowed to go on vacation during this period and should not experiment with new hands during this period.

(b) Crew Management

The Operations Department must devise ways and means of managing crew effectively during this period. They must be well motivated through the provision of effective leadership. The leadership must be such that has the knack to drive people to work for results through the formation of team spirit. This requires effective communication, delegation of responsibility, accountability and effective control without necessarily forcing people to work. The crew must be motivated and managed in such a way that they will willingly work on their own with minimum supervision.

(C) Increasing the supply of carrying units given fixed capacity by increasing vehicles availability from the workshop. The workshop can mar all the good plans put in place to effectively manage increased demand. The operatives should be properly motivated to put in their best during this period. My personal experience has shown that there are three functions which if handled properly will help to keep down cost and maintain a responsible level of productivity in the workshop. They are:

1. The full control of work flow in the maintenance workshop
2. Full use of mechanics hours
3. Full control of spare parts stock flow.

If the workshop manager effectively manages, controls, and coordinates the above functions during this period given the appropriate incentives and motivation, definitely, there will be low down time of vehicles in the workshop thereby increasing vehicle availability and hence utilization during the Peak Demand period. The workshop therefore is a potential source of productivity increase which should be utilized optimally in order to manage increased demand situation

(d) Real Time Control i.e. Operations Management

There is need to effectively manage real-time control during the period of increased demand situation. This real-time control is what I call "ground operations" which deals with the day-to-day operation. Activities here include: the following, inquiry, ticketing, packaging/loading, boarding/dispatching of vehicles and feed back. These various activities must be monitored in real-time in order to be effective and useful. It requires that the station manager must be highly resourceful in order to command the respect of all. These are the activities that could render transport operation useless especially during peak demand situation if not effectively monitored. A lot of time could be wasted here. This must be avoided if we are to effectively manage increased demand situation.

Therefore, station monitoring of vehicles, crew, and other supporting staff is very crucial in order to achieve efficiency of service such as prompt departure which guarantees reliability of services. Operations management in real-time requires appropriate equipment and infrastructure which facilitate operations and allow/enable the people concerned to perform their task.

(e) Passenger Information Management

Increased demand management requires effective passenger information Management. Activities here include all functions related to the provision of information to passenger as well as those handling the necessary data required to produce and update this. Information refers to both real-time and off-line information. It at times involves interactive or passive actions such as answers to inquiries regarding planned journey, fare collection, arrival and departure times, lost and found property, trip planning, transfer information, special facilities, information about people with special needs and missed trips, refund if need be.

(f) Finally, increased demand situation management requires that

other supportive staff must be effective and efficient, painstaking and above all, resourceful. The ticketing clerks must avoid double booking, that is, seat duplication, and unnecessary bottleneck situation. They should provide accurate information or refer to the appropriate person if he/she is not in a position to do so on enquiry. It requires early, timely persistent and accurate information releases and management. Above all, good customer relation is highly required at this period. We must at all times try to empathize with the customer.

PROBLEMS ASSOCIATED WITH INCREASED DEMAND

There are some problems that are associated with increased demand situation during peak period. Such problems include delayed departures which could lead to rowdy situations at the terminals since passengers do not want to wait. Please try to reduce this time to the barest minimum. Another problem is the case of seat duplication by the ticket clerks.

This could lead to a lot of time wasting. Please, try to avoid this by crosschecking. This is the job of a supervisor. Another problem is that of the issue of rude/stubborn passengers on account of missed tickets, or collection of change. Please empathize with them. They simply want to travel. The station manager should promptly play a role here. Finally, court action may result from the crisis of increased demand.

CONCLUSION

We conclude by saying that increased passenger demand is a phenomenon in transport operation during peak periods, and passengers during this period are insensitive to price changes while at the same time impatient to long waiting. We can therefore reduce the pains of waiting and the problem associated with increased demand by being resourceful, efficient and

painstaking in the discharge of our various responsibilities. It therefore calls for early and effective information management, motivation and good customer relations. Since there is no off-the-shelf solution to the problem, what is required is the evolution of appropriate strategy to deal with each problem as they arise. Flexibility, prompt decision and resourcefulness are the hallmark of efficient management of increased demand situation.

Part 2

TRANSPORT PLANNING

CHAPTER TWO:
THE CURRENT ECONOMIC REFORM POLICIES:
PROBLEMS AND PROSPECTS

INTRODUCTION

The economic problems faced by developing countries in the 1980s and 1990s have necessitated the need for the questions what went wrong? Why economic reform in the first instance? why must the Nigerian Government prohibit certain items in the midst of the pursuit of economic liberalization? An attempt to provide answers to the above posed questions indicates that many events have taken place in the world in the last two decades. For instance, there was the global economic recession of the 1980^s. The recession provided the needed momentum that brought about changes in the ways and manners business are being carried out and the expectation of business customers.

These changes include the globalization process, the restructuring process, privatisation and outsourcing and the advancement in information technology. All these have brought about changes that have challenged the ways things are done. Consequently, these changes have brought about challenges to the various governments across the globe. Nigerian Government has realized that they have failed in the management of resources. In a way, they realized that they couldn't effectively manage government affairs and economic/businesses at the same time. These challenges therefore called for new knowledge, if they must be adequately taken care of. These challenges necessitated the various economic reform policies of the government. The Nigerian vision was anchored on its home groomed economic policy called National Economic Empowerment and Development Strategy (NEEDS). This strategy came into being in 2004. The NEEDS is being translated into action every year through the national budgets. Thus, the economic reforms of the

government are being implemented through the National budgets from where the current economic reform policies of the government are derived and implemented on an annual basis in order to achieve the desired incremental growth through conscious and consistent implementation.

ECONOMIC REFORM POLICIES

This could be seen as a committal statement of government intended action to bring about changes in the prevailing economic policies. It is geared towards attaining higher levels in such macroeconomic aggregates as employment, gross domestic products (GDP), investment, savings and generally good macroeconomic stability. Others include improvement in the balance of payment (BOP) and export drive enhancement. It involves policies directed at strengthening the domestic currency, reduction in inflation rate and improving the industrial capacity utilization. In other words, economic reform policies are policies undertaken by the government to redirect the ways and manners business are carried out.

The first attempt at reform measures in Nigeria started in the early eighties with the introduction of the Economic Stability Act of 1982 (otherwise known as austerity measures). This was as a result of the global economic recession then. Also, the structural Adjustment Programme (SAP) was introduced as a kind of reform aimed at improving the way and manner the economy was being managed then. The SAP programme was badly implemented and it failed to achieve the desired impact. The inability to institute an enduring reform programme continued until 1999 when the present government came into power. Consequently, the condition of things worsened economically. The government now realized that it has to restructure the entire system in order to achieve the desired objectives of improved welfare and lift the economy up from the low economic growth being experienced.

This burning desire of the government led to the formulation of the home groomed development strategy called National Economic Empowerment and Development strategy (NEEDS), which brought about various economic reforms.

The NEEDS strategy was a broad based development strategy that envisaged reforms in all the sectors in order to improve the welfare of the people and increase the pace of development. In this regard, the government has embarked on the following reforms among others:

- Privatisation of public enterprises to make them more effective and efficient.
- Reforms in the power sector in order to generate more power and ensure steady electricity supply.
- Reforms in the banking sector through the bank consolidation policy. We also have reforms in both the monetary and fiscal policies including tax reform.
- Reforms in the educational sector to ensure skilled, efficient, quality and relevant manpower.
- Reform in the civil service through Monetization Policy and Servicom Nigeria to ensure efficient service delivery.
- Reform in the pension scheme
- Reform in the health sector
- Reform in the transport sector especially port reforms and the railway privatisation.
- Reforms in the security services including customs and police.
- Export Drive reforms.
- Reforms in the agricultural sector. Solid minerals reforms.
- Transparency and Anti-corruption reforms. This witnessed the establishment of the Economic and Financial Crimes Commission (EFCC), Independent corrupt practices and related crimes commission (ICPC) and the Extractive

industries transparency initiatives etc (EITI)

CURRENT ECONOMIC REFORM POLICIES

The NEEDS implementation started with the 2004 budgets. This budgets highlighted economic reform policy direction of the government. The 2005 budget was a further incremental implementation of the NEEDS. The 2006 budget further extended some of the NEEDS strategy. In furtherance of the implementation of the NEEDS, the 2006 National budget specified the policy direction of the Federal government of Nigeria. These economic policy directions spelt out in the 2006 budget constitute the current economic reform policies of the government. The highlights of the current economic reform policies include:

(a) **Tax Reform:** The aim is to simplify our tax system in order to reduce the multiplicity of levies and secure better compliance of our tax laws.

(b) **The Introduction of ECOWAS Common External Tariff (CET):**

This started in October 1, 2005 and is being operationized with the 2006 budgets. The CET is an advanced form of trade liberalization. The full implementation of CET by all member states, which are subject to common tariff will simplify trade regime within the sub region. This reform brings Nigerian tariff down from 20% to 5%. In this regard, the weighted average tariff has been brought down from 25% to 1 %. Specifically, the following tariff rates are applicable:

- 0 percent for machinery and equipment for one year only in the first instance, for necessities;
- 5 percent for raw materials;
- 10 percent for intermediate goods;
- 20 percent for finished goods;
- 50 percent for goods in which the country has

comparative advantage for production and for certain luxury goods. (Budget, 2006), we hope our manufacturers will take advantage of this gesture

- (c). **Import prohibition for Certain textiles and other articles which started in 2005 will still remain in force till January, 2007.** This reform policy placed ban on the following items: Textile materials (wax type), used cloth, used refrigerators, used cars over 8 years old, tooth pick, tooth paste, household materials, fruit juice, stationeries and foreign rice etc.
- (d). **The Export Expansion Grant, which was stopped, has been revamped and strengthened.**
- (e). **Revamping and strengthening of the manufacturers export in bond.**
- (f) **Customs Reforms:** This is aimed at strengthening and improving customs services. This reform will bring about the automation of customs with the introduction of the automated system for customs data. ASCUDA 2.0 plus and the scanning machines to reduce time spent in clearing at our ports.
- (g) **The import guidelines procedure and documentation under destination inspection scheme. This is expected to achieve the following:**
- Entrenchment of destination inspection,
 - Abolition of pre-shipment.
 - Easy access to foreign exchange by genuine importers.
 - Streamlining the activities of governmental agencies involved in inspection of cargos at the ports.
- (h) **Banking sector reforms:** This reform witnessed the consolidation, which gave rise to the emergence of 25 big banks in Nigeria in January 2006.
- (i). **The Intensive drive for the increase in the non-oil export.** This

is the solid minerals reform. Also, there are the agricultural products export drive, the communication sector reforms and the transport sector reforms. In addition, there is the civil service reform, which is aimed at enhancing service delivery through improved efficiency.

PROBLEMS OF THE CURRENT ECONOMIC REFORM POLICIES

Like every economic policy, the current economic reform policies, no doubt, have some problems associated with its implementation. In the first place, the implementation of the current economic reform policies especially the ban on certain goods would lead to increase in smuggling activities and the consequences would be very high. In this case, the customs would devote more resources and materials to combating smuggling activities. This no doubt, will expose them to high risks. Consequently, the customs would concentrate more on enforcement and anti-smuggling duties. Also, there will be the case of increase in corruption in the Nigeria customs services, since some corrupt members would definitely compromise their positions. In addition, the current economic reform policies may bring about increases in corruption associated with the acquisition of import licences. This is a political era; most big, strong and influential politicians would definitely obtain the import licences and sell them later to real importers. This action obviously would increase the cost of goods, which would impact negatively on the welfare of the citizens. For instance, there will be increase in domestic prices, which would have the negative impact of eroding the purchasing power of the people. This situation would worsen the poverty conditions in the country. This is the welfarist argument against the current economic reform measures. Also, the implementation of the ban will bring about wide gap in the market demand already created by the foreign goods. We do hope that the local industries will have the capacity to adjust quickly to this situation. The shortages in the

available goods would lead to a decline in the standard of living of the people in the short run through the adjustment in taste during the process of switching over from foreign taste, to local tastes. Consequently, there will be a case of the problem of change in tastes, which if not properly handled could create health problems.

In addition, some schools of thought have argued that government prohibition of certain items is an indirect way of promoting inefficiency among the local industries, especially in a situation where some of the industries have refused to respond positively to the wishes and expectations of the government for the protection. This is being advanced because of the near absent or inadequacy of effective and efficient functioning of public infrastructure such as electricity, water, roads and railways, etc.

Also, since there is no evidence of appropriate study to determine the local capacity to produce the banned items in order to meet local demands, there could be cases of persistent shortages, which might lead to high domestic prices and invariably to high inflation. Other problems include the case of inadequate physical security. Nigeria is still below the international standard of policing citizens which is of one policeman to 200 people. We have only one policeman to 723 people in Nigeria. (Daily independents, Wednesday, May 4, 2005). In addition, there is the problem of weak enforcement of contract in Nigeria due to weak judiciary. Also, there is the problem of high cost of finance and unstable exchange rates and the case of selective implementation of policy. There are other daunting challenges within the environment that may prevent effective participation of the private enterprises from taken full advantages of the current economic reform policies. These are in the area of infrastructure and legal framework.

We equally have the problem of the inability of the staff of the regulatory agencies to understand the reform policies and implement them. This is the problem associated with reforms mainly in the third world countries including Nigeria. This particular problem is feared to be the most daunting of all the problems, and if not properly handled may affect the effective implementations of the reforms which could lead to failure. Reforms of this magnitude require highly competent technocrats with high level of integrity and above all very transparent.

CONFRONTING THE PROBLEMS

In order to confront the problems envisaged in the current economic reform policies, the government has embarked on other reforms and strategies. In the first place, government being mindful of the demand gaps to be created by prohibition or ban on certain items had earlier embarked on strategies for promoting private enterprises by making charges to create an environment in which business will thrive. The NEEDS strategy is very clear on this. For instance, government has embarked on measures for promoting non-oil private sector participation in the economy through the Better Business Initiative. This is supported by the World Bank, Department for International Development (DFID) and the United State Aid in Development (USAID). These agencies financed evidenced based researches aimed at reforms in removing obstacles to business development in Nigeria. Currently, the UNDP is funding research programmes on the possibilities of establishing business clusters, parks and business incubation centres. Other studies include the nation wide informal sector study and the statistical Agencies study. This is aimed at improving capacity building of these agencies while the informal sector study is geared towards integrating the informal sector activities into the national economy. In addition, there are reforms in the national planning commission, and the Federal Office of Statistics. These reforms will help to build capacity in

these important government institutions. We also have the public sector reforms, which is aimed at making it effective. There are also the monetization policy and service delivery (Servicom, Nigeria). All these policies are effort geared toward eradicating corruption on one hand and entrenchment of transparency on public expenditure.

PROSPECTS OF THE CURRENT ECONOMIC REFORM POLICIES

Conscious implementation of the current reform policies are expected to bring about the following benefits to the economy. In the first instance, there will be increase in the direct foreign investment in Nigeria with other associated benefits such as employment and increase in domestic production. For instance, portfolio investment in Nigeria has increased to \$1.9billion since the International rating agencies categorized Nigeria BB -. It is expected that foreign direct investment through non- portfolio vehicles in manufacturing, infrastructure, agriculture and services will increase as a result of the ban on certain items. Bank consolidation has brought in about \$500m in direct foreign investment. In the communication sector, teledensity has witnessed a tremendous growth in Nigeria from 0.4 percent in May 1999 to 14% by December 2005. Also the numbers of telephone lines have grown from less than half a million line in 1999 to over 20million in December 2005. Consequently, investment in the sector rose from 50 million dollars in 1999 to over \$6 billion in December 2003 and over \$10billion in 2005. This investment will increase when they commence the production of recharge cards in Nigeria.

Also, the transparency drive and the improvement on the real sector, the civil service reforms, and the monetization policy have brought about some savings. For instance, restructuring and monetization have resulted to a saving of \$50billion and internally generated revenue increased to N9billion a month as against N1.9 billion a month in 1999. All these increase, in revenue will help to

close the funding gap of \$ 4billion per annum which Nigeria needs to finance infrastructure necessary to realize its development goals in order to meet the millennium development goals (MDGs).

Another prospects of the current polices especially trade restriction is the protection of domestic industries and the improvement in the balance of payments. This is the infant industry argument for trade protection The Germans used this to protect their industries against stiff competitions from British established firms. It is expected that this will stimulate employment and would also lead to an improvement in the country's balance of trade. For example, the ban on fruit juice has resulted to the establishment of fruit juice manufacturing plant in Benin City by coca-cola company. Also, the cumulative effects of the reform have brought about a change in the government's consolidated balances. It shifted from repeated deficit before 2004 to a surplus of more them 10% of GDP in 2005. This is expected to rise to 16% and 17% respectively in 2006 and 2007. In addition, Nigeria is now a confirmed newly established status, as a creditor nation with foreign reserve estimated at \$30 billion in 2005. Also, the recent debt relief of \$18 billion foreign debts by the Paris Club are the direct benefits of the reform policies.

Another prospect of the current reform policies especially the prohibition of certain items is the increase in domestic production. The agricultural sector has taken the lead with 7% growth rate. Specifically, cassava production increased by 4 million metric tonnes from 35 million to 39 million metric tonnes in 2005. Also, rice production increased to 800,000 metric tonnes. On the industrial sector, government having realized that the small and medium size enterprises are the engine of growth has embarked on the establishment of industrial clusters through out the Federation.

The essence is to bring similar industries together so that they can

share facilities and infrastructure thereby reducing cost of operation. Also, industrial parks and business incubation centre are being established. In addition, government through the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) has opened up business information centres (BICS) in partnership with stakeholders to deliver information in both print and electronic media. This action will help to build capacity among their enterprises through sensitisation since the capacity gaps of these enterprises have been identified.

The recent policy measures would lead to the transfer of foreign technology by way of direct investment. It is believed that there will be increase in the acquisition of local technology. It is hoped that our indigenous entrepreneurs would lead-frog in this regard by jumping some stages through a combination of advanced technology with local technology.

In addition, the port reforms have witnessed reduction in the time of doing business at the port. The introduction of the automated customs data would definitely reduce paper work. We have also seen drastic reduction in the number of government agencies at the ports.

CONCLUSION

We shall conclude by saying that though the recent economic reform policies of the government have impacted negatively on the citizens in the short-run on one hand. However, in the long run, we see the prospects of Nigeria joining emerging economies like Brazil, Turkey, Ukraine, Serbia, Philippines and Vietnam.

Therefore, government prohibitions of certain items are really measures taken to redirect the economic growth of Nigeria. These measures will support the small industries in the country against stiff competition from well-established overseas companies. In addition, it will generate employment and redirect

our tastes for foreign goods. Nigerians ought to be patriotic by embracing the consumption of locally produced goods. This will definitely support the local industries; Increase their expertise and local technology. Consequently, the far-reaching reforms and improvements in all sectors of the Nigerian economy must be sustained if the various cycles of poverty, unemployment, social crises and dislocations will be eradicated from the country.

REFERENCES

- Federal Republic of Nigeria (2004), National budgets Federal ministry of finance Abuja
- Federal Republic of Nigeria (2005), National budgets Federal Republic of Nigeria (2006), National budgets
- National Economic Empowerment and Development strategy (NEEDS) (2004), National planning commission, Abuja.
- Eric C. Eboh (2005) ed., Promoting Nigeria's Non-oil Private Sector, Evidence and Recommendations, Enugu, African Institute for Applied Economics for the Better Business initiation.
- Sodersten B. O. (1980) International Economics 2nd Edition, London, the Macmillan press Ltd.

CHAPTER THREE

INVESTMENT PLANNING AND BUDGETING IN THE TRANSPORT SECTOR

INTRODUCTION

Investment planning and budgeting is a topic that is tempting because one could go ahead to discuss investment without actually planning for it. This again is misleading because investment undertaken without planning could be likened to a general going to war without a strategy.

Planning as we all know, deals fundamentally with choosing and a planning problem arises only when an alternative course of action is discovered. Planning is deciding in advance what to do and how to do it, when to do it and who to do it (Kontz et al, 1983). It is a deliberate attempt to determine future events.

Investment on the other hand is a flow - it is the new capital stock or just capital. Firms invest in order to obtain the capital stock needed for efficient production (Henderson and Poole, 1991). Investment planning therefore is a careful way in which firms determine in advance what capital stock to acquire, how to acquire it, who acquires it, when to acquire it and what use to be made of the capital stock, investment planning starts with the feasibility studies. A feasibility study or investment proposal is carried out to determine the feasibility or viability of a project or proposal with a view to accepting or rejecting the project/proposal before committing resources to it. Thus, feasibility provides the technical, economic and commercial basis for investment decisions. In a way, it is the premise upon which investment decisions are based.

Investment planning considers all the factors that influence the investment environment. It considers the political, the economic, the regulatory and the opportunities available that influence investment decision.

WHAT IS INVESTMENT?

- Investment can be described as a flow in the new capital stock. The act of investment usually involves abstaining from current consumption in order to acquire assets, which raises the productive potential of the economy or a firm and therefore the possibilities for future consumption. In other words, investment sacrifices now for future consumption. Investment means spending which creates income for others in the economic system. To understand investment therefore, we need to find out what capital stocks firms want and compare that with what they have.

A firm gets from here to there by investing. In other words, a firm only expands through investment. Investment decisions in transport can be broadly categorized into that affecting transport infrastructure usually provided by the government e.g. control tower, the runway etc. Roads, bridge, seaports, rail-ports, Railways, and those affecting transport facilities involved in the delivery of transport services which are usually provided by the operators e.g. buses, aircraft e.t.c. It is clear from the above that decisions on investment in transport are taken by two major actors with different objectives and goals. It is usual for government in view of the huge size of the capital funding required to provide infrastructure which will facilitate mobility for the citizenry. Such infrastructure includes railway, roads, airports; seaports, motor parks, to mention a few. Government's interest in doing this is to maximize the social product to the society.

- This investment decisions are normally taken in the political area. The provision of the carrying units e.g. vehicles, aircrafts and the services are done at a much lower level where either private individuals or corporate operators are concerned. This second group of investment decision makers are more concerned about the profitability of the ventures they undertake, a situation where some contrary goals are to be pursued, it is usually clearly spelt out.

Investments generally are undertaken for some reasons, they include the following:

- to replace capital that has worn out
- to bring capital stocks to the capacity needed to meet market demands for products and,
- to modernize capital stock so that they can produce a given level of output at lower cost.

The third reason for investment clearly shows that there could be changes in the economy that could cause investments to either increase or decline. Such changes could stem from technical changes, which may be leaping. Technological changes should lead to existing new inventions which at time stimulate waves of new investments and at other time, progress seems slow such period like during wars and political instability which threatens the profitability of new investments such that investment declines. In the transport sector, the tendency towards large capacity vehicles, vessels, airports and coaches and wagons has prompted investments in this direction.

FACTORS AFFECTING FIXED INVESTMENT IN THE TRANSPORT SECTOR:

A number of factors affect the level of fixed capital investment in the transport sector. Such investment in fixed capital includes plant and machinery, roads, seaports, airport, cranes and fixed facilities used in the production of transport services. The factors that affect the investments include:

THE RATE OF INVESTMENT RATE: The classical theories of investment placed considerable emphasis on the importance of the rate of investment defined here as the alternative foregone of capital. It is the compensation required for forgoing current consumption. Fisher used the rate of interest to derive the present value (PV) of an expected future stream of income. By

calculating the PV of various alternative investment projects they could then be ranked in order of priority. The present value of interest rate can be taken a stage further by introducing the marginal efficiency of investment (MEI). The MEI being defined as that rate of discount which would equate the PV of a given stream of future income from a project with the initial capital outlay (the supply price).

$$S = PV = R^1 / (1 + i)^1 + R^2 / (1 + i)^2 + R^3 / (1 + i)^3 + R^n / (1 + i)^n$$

Where S = the supply price

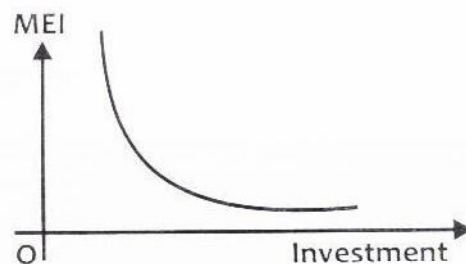
PV = the present value

R = the expected yearly returns and

i = that rate of discount necessary to equate the present value of future income with the initial cost of the project.

The curve relating the marginal efficiency of investment (i) to the level of investment is shown below.

Figure 1: The Investment Demand Schedule



The above curve is negatively sloped for two main reasons:

a) The earliest investment projects undertaken are likely to be the most profitable in offering the highest expected yearly returns (R) and having the highest marginal efficiencies of investment (I). As more projects are initiated, they are likely to be less and less profitable with lower expected yearly returns and therefore lower MEI.

(b) A rise in the level of investment undertaken is, at least in the short run, likely to raise the supply price (S) which in turn will reduce the MEI will depend on the relationship between the rate of interest (R) and the marginal efficiency of investment (i). If r is less than i, then the annual cost of borrowing funds for an additional project will be less than the expected annual return on the initial capital outlay, so that the project will be profitable to undertake. In fig 1, with interest rate i, it will be profitable to invest in all projects up to I, with I, itself breaking even. The MEI schedule is therefore the investment demand schedule, telling us the level of investment that will be undertaken at any given rate of interest. Expectations play an important role in this theory of investment.

THE RATE OF CHANGE OF OUTPUT:

The accelerator theory relates net investment to the rate of change of output. If the capital stock is fully utilized, and the capital output ratio v constant, then net investment (i) can be expressed in the following way:

$$K_i = vY$$

$$K_t - K_{t-1} = v(Y_t - Y_{t-1})$$

$$I_t = v(Y_t - Y_{t-1})$$

$$I_t = v \Delta Y_t$$

Where Y is output, and t and $t-1$ are time periods. Net investment in year t is then a constant proportion of the change in output during that year. For example, if output rose by N2m for an economy ($Y_t = N2m$) and each extra NI of output needed an average of 0.5 of capital equipment to produce it ($v = 0.5$) then $I_t = N1m$.

The accelerator theory has been critiqued heavily, because of:

1. The assumption of full capital where there is no excess capital is particularly suspects. Where there is spare capital, then rise in output Y_t can be met from the existing capital stock.
2. The assumption of constant capital/output ratio v is becoming

less and less plausible. New technology is progressively reducing capital/output.

3. Expecting of future demand and therefore future changes in output affect investment of transport companies.

4. The level of output and capital - the capital stock adjustment model. The problem of the simple accelerator theory gave rise to the level of output and capital as a factor that affects investments. The model states that investment is positively related to the expected level of output (demand) but also on the current size of the capital stock.

Specifically, $I_t = bY_t - cK_{t-1}$

Where I_t = gross investment in the current year,

b and c = constant coefficients,

Y_{t-1} = Last year's level of output

K_{t-1} = the capital stock at the end of the proceeding year.

If it is assumed that the expected volume of output is roughly equal to that experienced in the previous year Y_{t-1} , then the higher is Y_{t-1} the greater will gross investment tend to be. On the other hand, the greater the previous stock of capital, K_{t-1} , the less need there will be for adding to the capital stock or even replacing worn-out equipment.

5. Profitability: There are three reasons why changes in profitability are associated with changes in private sector investment. The reasons are:

a. Higher profits indicate a more favorable return on capital, which may encourage companies to reinvest any surplus rather than devote it to alternative uses.

b. Higher profits may improve business confidence and raises the expected future return on any project. An outward shift of the MEI schedule (see fig 1) might then raise investment at any given

rate of interest.

MEI schedule (see fig 1) might then raise investment at any given rate of interest.

c. Higher profits may raise investment by reducing its cost, as funds generated internally are cheaper than those obtained from the capital market, whether equity or debenture (ploughs back).

6. Uncertainty: This is another factor that affects the level of investment. During periods of uncertainty for example, after or during a stock rise in oil prices, think of what happened during the period of fuel crisis in Nigeria two years back. It has been generally argued that firms will reduce the value they place on expected future returns on investment projects. In terms of the earlier Fig 1, the MEI curve will shift leftwards and less investment will take place at any given rate of investment. Faced with such uncertainty therefore, businessmen or investors become more inclined to delay any planned capital spending, consider, what happened during the Abacha regime when the direction of the entire economy was uncertain and this situation delayed planned investment decisions both on the part of government, private and corporate sectors.

7. Public Policies: Government policies can when combined with uncertainty of stop-go policies affect the level of investment decisions. Certain actions of government especially during recessions tend to play a positive role in stimulating demand through reflation of the economy, may change during boom period, in order to deflate demand, to reduce spending on imports. The uncertainty of such stop-go policies might reduce business confidence and discourage investment. Other policies of the government may also influence investment in the private sector, for example, change in the rate of taxation of company

profits e.g. multiple taxes in transport operation, or in the capital allowance which can be set against tax, are believed by majority to positively affect the levels of investment.

8. Inadequate financial system: This again is believed to affect in the negative way the level of investment in the economy. Weak financial base and inefficiencies in the banking system and in the capital markets as witnessed in the finance it requires for investment. Regulation and deregulation of the banking sectors each has impact on the level of investment decision that takes place in the economy.

THE FINANCIAL PLAN

Having identified the factors that influence investment decision, a step further in the investment planning process is to establish a financial plan. The financial plan in an investment planning process will look at the total cost of investment and the financial arrangements. In a way, this aspect is concerned with the sources of the funds for investment and the type of capital available. The main thrust of the financial plan is the appraisal of the capital investment and the final selection of them, but alternative investment appraisal therefore is concerned with the techniques available to assess alternative investment decision, in order to justify the choice of one alternative against the other.

Investment appraisal and decision are taken at two different levels namely:

- a. The private and commercial investment decision, and
- b. The government or Public investment decision.

In spite of the above, no matter the kind of investment what is important to all cases is that, resources are scarce and that different investment types which are numerous are competing

for the scarce resources. The onerous job for the decision maker therefore is to understand the useful parameters which can be used to compare a decision option against the other.

for the scarce resources. The onerous job for the decision maker therefore is to understand the useful parameters which can be used to compare a decision option against the other.

THE INVESTMENT PROBLEMS IN TRANSPORT

The alternative to any investor putting his money on a business is to leave that money in the bank or buried. So when resources are committed in a business today, the major objective is to ensure that the business operator gets his money back at a future date.

Unfortunately however, since today's outlays are certain while tomorrow's returns are only forecast and estimates, business therefore involves risks. This is the problem of investment in transport. In order to minimize the risks, decision makers need some fairly reliable methods to help them calculate potential returns and to make the right choice among competing business ideals. Whatever is the motive for investment, there is a need for an investment decision and justification. For a decision maker to justify his actions, he must provide answers to the following three important questions namely:

- a. What are the potential risks?
- b. What are the potential returns?
- c. Does the potential return justify the risks?

In an attempt to provide the answers to the above, the decision maker got involved in investment appraisal. Investment appraisal in the transport field is designed specifically to address some of the following issues:

- a. How does a transport operation decide whether or not to buy more carrying units?

- b. When should a transport operator replace outdated equipment?
- c. How does a transport planner decide whether or not a railway line or an airport or a road should be closed?
- d. How does a transport planner decide on the best choice between two proposed airport for instance and which one should be chosen?

The ability to provide a satisfactory answer to the above question constitute invest problem in the transportation sector.

ALTERNATIVE METHODS FOR BANKING INVESTMENT PROPOSALS (APPRAISAL TECHNIQUE)

The investment appraisal techniques which we shall see are those Methods of appraising and ranking alternative investment proposals. Each attempts to analytically determine an array of investment opportunities which would be profitable for the firm to accept.

Unfortunately in today's world, many capital decisions are made only out of necessity without giving any consideration to profitability. Many organizations or firms have no formal evaluation process by which they can examine future investment alternatives that may add to the wealth of the firm or to the wealth of the shareholders.

What we normally see is that the management group is to be involved in the day- to- day operations of the firm, that they lose sight of their goal structure and make investment decisions based solely upon what is termed the degree of necessity. Put in another term, the management resorts to fire brigade approach to investment decision. This is the bane of investment in the transport sector. Take for instance, a situation when repairs are made on the equipment used to render services to customers or a shift in the major line operated just to make sure that revenues keep coming in. In the above situation, management leaves no.

room for considering the contribution of the equipment to the overall goal and profit structure of the firm, but rather makes these decision to keep revenue coming in order to meet the immediate cash needs. This is almost the situation in most organizations especially when an important visitor is expected. The transport sector tends to be the worst culprit.

In this day of narrowing profit margins due to high wage rate and increasing competition, it is essential that any firm or organization wishing to achieve its goal structure should employ a formalized capital budgeting process which continually evaluates all aspects of the organization and future investment opportunities. The methods below are some of such evaluation techniques:

PAYBACK METHOD: This method of appraising investment alternatives is defined as the number of years it takes to recoup the initial investment. The technique gives preference to those investment proposals that have the earliest payback period. Using net cash flow data the technique can be illustrated below.

Table Two - The Payback Technique Investments

Year	A	B
1	N700	N200
2	NS00	N400
3	N300	N600
4	N100	N800
5	-	N1000

Both investments require an initial outlay of N1,200. The net cash flows shown in Table 2 would indicate that investment A would have a payback period of 2 years while investment B would have a payback period of 3 years. This was determined strictly by

applying the definition of payback and by counting the number of years it takes to recover the initial outlay of N1, 200.00. Simply by examining the cash flow data. From the data, the technique would indicate that investment A is preferable to B because the payback period was shorter. This mostly apply in investment in the carrying unit in transports

THE DISADVANTAGES OF THIS METHOD

- (a) It does not take into account the earning over the entire life of the project.
- (b) The method does not consider the time value of money.

ADVANTAGES:

- (a) The revenue streams in the future are faced with great uncertainty and those projects that return in early payback eliminates some of that
- (b) In the case of early cash to run the firm, preference is therefore given to earlier payback projects

AVERAGE RATE OF RETURN: This method of ranking investment alternative is primarily an accounting method of a ratio of the

Table Three - Illustration of the Average Rate of Return Investments

Year	C	D
(Initial outlay)	N20000	N20000
Net Income	500	1750
Net Income	700	1500
Net Income	1000	1250
Net Income	1250	1000
Net Income	1500	700
Average Rate of Returns	Total Inflows	Number of years Total outlay

Utilizing the above, one obtains an average rate of return of 10% for project C and 8.33% for project D.

1. ARR_C -	$\frac{500}{5}$	$\frac{1000}{10,000}$	10%
2. ARR_D	$\frac{6250}{5}$	$\frac{1250}{15000}$	8.33%

30,000
2

On the basis of this analysis, one would state that project C is preferable to project D. The advantage of this method however is that it considers the earnings over the entire life of the project. This method has been criticized because:

1. It does not take into account the time value of money
2. It uses profit after tax as an accounting concept and does not consider the net cash flows of the project.

THE DISCOUNTING CASH FLOW METHODS: The internal rate of return (IRR)- This internal rate of return method incorporates the concept of the time value of money. It recognizes that a naira today is worth more than a naira tomorrow. This method utilizes the concept of present value in calculation process. The internal rate of return is the rate of discount, which equates the present value of the expected cash inflows with the present value of the expected cash outflows.

In many instances, the outflow is simply an initial investment made in time zero. In this case the equation for the internal rate of return is as follows:-

$$\text{Initial Outlay} = R_1 + \frac{R_2}{(1+r)^1} + \frac{R_3}{(1+r)^2} + \dots + \frac{R_n}{(1+r)^{n-1}}$$

$$= \sum_{t=1}^n \frac{R_t}{(1+r)^t}$$

Where one is solving for R the solution technique is a trial and error approach in which one selects an appropriate discount rate and determines if the present value of the net cash inflows discounted at this rate equals the initial investment. If it does not, then one has not found the internal rate of return. One repeats the process until the discount rate that equates cost to the present value of the inflow. Today, the invention of computer has quickened the calculation of internal rate of return. The user simply supplies the data for the initial investment and annual cash inflows and waits for the computer to provide the answer.

Project E discounted at 12%

Project E discounted at 34%

Year Net Cash flows PV factor PV of			Net Cash flows PV factor PV of			
		At 12%	Cash Flows		At 34%	Cash flows
1	N1,000	.893	N893	N1,000	.746	N746
2	750	.797	598	750	.557	418
3	500	.712	356	500	.416	208
4	300	.637	191	300	.310	93
5	200	.567	113	200	.231	46
		PV of Inflow,	n		Rt.	
			t = 1		$(1+r)^t = N2,151 = N1,511$	

The above one is trying to find the internal rate of return for project E, which requires an initial outlay of N1500 followed by a five year net cash flow stream. From the table it could be seen that by discounting the uneven net cash flow stream at 12%, one obtains N2, 151.00 as the present value of the inflows. The question is whether or not 12% is the internal rate of return. By definition this sum must be equal to N 1, 500.00 since it is not and the difference between the two figures is N651, the internal rate of return has not been found. Should a higher discount or lower discount rate to be used? The discount rate to be depends on the difference between the inflow and the outflow. The present value of inflow should be discounted so that the difference approaches zero. This can only be achieved by using a discount rate which has smaller present value of cash flows. To achieve this, a higher discount rate factor should be used in order to achieve a low present value since the present value factors decreases as the discount rate is increased. In our example, the discount of 34% gives the present value inflow of N1, 511.00. The figure is close to the cash outflow of N1500.00 At this point, we say that the internal rate of return has been found. Both the earnings over the entire life of the project as well the time value of money.

The method has been criticized because of its trial and error process which could be very tedious when calculation is done by hand. However, the use of computer has made the process very simple.

THE NET PRESENT VALUE (NPV)

This is the second in the series of the discounted cash flow methods of investment appraisal. It has been found to be theoretically correct technique because it takes into account both the earnings over the entire life of a project as well as the time value of money. This method is defined as discounting the net cash flows at the cost of capital. The formula for calculating the net present value (NPV) is

$$NPV = \frac{R_1}{(1+k)} + \frac{R_2}{(1+k)^2} + \dots + \frac{R_n}{(1+k)^n} - \text{PV of cost}$$

This technique simply discounts the cash flows at K, the cost of capital. The accept or reject rule for the net present value is to accept all projects with positive net present values and reject all projects with a negative net present value. If the net present value of a project is zero, this means that the project is just returning the cost of capital. On no condition must one accept a project earning below the cost of capital.

All the appraisal technique enables the decision maker in investment planning process to form an opinion j decision against different alternatives. He selects only the investments alternative that passes the criteria set by these techniques. This process forms the basis of investment planning especially within the framework of limited resources for competing investments under budget constraint.

BUDGETING

Having analyzed the investment proposals and decisions taken on which project is to be implemented the next stage is now to budget for the funds. The budgets help for incremental implementation of an investment plan. It helps for the full realization of the plan. Budget therefore is defined as the estimation of the likely costs and returns of a planned investment proposal, operations of a business concern during a specified period of time (usually a year), or planned changes in the operations of a business. It, thus, provides information on the amounts (physical or monetary units of a resource) to be spent for each part of the business and making clear who is responsible for carrying out each part of the business (Anthony & Herslinger, 1975). A budget is made up of two parts, the revenue part and the

expenditure part. Seen in this way, a budget takes care of the total capital situations. There are two types of budget, partial budget and a complete budget. A partial budget could be departmental or unit or sectional budgets which could be implemented when the planned changes do not affect the whole organizational set up but only a part of it. For instance if an airline that runs both internal and international flights with a particular aircraft now wants to phase the aircraft out because of its decision to concentrate on international flights, a partial budget analysis is what is required to assess the phasing out of some passenger aircrafts in order to acquire some cargo aircrafts in order to introduce cargo services to some routes. Whatever the planned change, a partial budget is aimed at providing answers to the following questions:

- a. What extra costs will be incurred?
- b. What revenue will be lost?
- c. What costs will be saved? and
- d. What extra revenue will be gained?

The costs and benefits associated with the plan are as follow. On the costs side, we have the revenue forgone (i.e. revenue lost because of the abandonment of the activity in question) and the extra or new activity). On the benefits side we have the costs (of old activity) saved and the additional revenue (from the incoming activity to be derived. If the sum of the benefits side is greater than that of cost side, then we can say that the planned change is worth implementing as it will have a positive effect on the overall profit margin of the organisation.

On the other hand, when a major change (reorganisation) in a business set up or a completely new business is planned, a complete budget will have to be drawn detailing what resources

the cost; and benefits associated with the planned investment, personnel requirement, training needs, market outlets e.t.c. In other words, all the probable costs and benefits items of the entire organisation are considered. And every item of cost and benefits is worked out based on the requirements of the proposed investment plan.

Because the amounts of resources required in these cases are enormous the first issue management would want to address in its budget decision making process is how to generate the funds for the purchase of transit facilities and the associated infrastructures. For example, how will fund be generated? Will it be generated internally (locally) or externally? Will it be through equity participation, sales of financial debt instruments, such as bonds, government budgetary allocations or direct borrowing from local banks. It is also possible to generate the funds through some combination of these sources, and so, in what proportions. Besides these capital cost item, there are the operational costs such as those for spare parts, fuel, lubricants/oils. Servicing charges, salaries, licenses, stationeries etc.

On the revenue side, we consider fares, rentals and other sources of revenues. It includes employment generation and other secondary benefits arising through the multiplier effect phenomenon, and finally impact on the national income.

In conclusion therefore, it must be noted that although budgeting helps us to identify all our costs and revenue item by attaching monetary values to them. We have been able to determine whether or not a proposed investment plan or planned change is worthwhile. It does not tell us what the best plan should be. The budget is only a means through which planned investment is translated into action.

REFERENCES

Alan Griffiths & Stuart Wall (1993). Applied Economics An Introduction Course. London Longman Publishers.

Anthony And Herslinger (1995). As Quoted By Jaeop Pivoha. "In Budgeting And Cost-Effectiveness In Mass Transit Operations". An Invited Paper Delivered At The Urban Mass Transit Operations Management Course. Held At The Nigeria, University Of Transport Technology (Nih) Zero, 8th 20th September, 1989.

B. Chima Onuoha (1998) (Edited). Small Business Management Entrepreneurship. Aba, Afritowers Ltd Publishers, Aba.

B. Chima Onuoha (1994). Entrepreneurial Development In Nigeria. An Integrative Perspective. Okigwe Alvan Global Publications.

Jacob P. Voh (1989) "Budgeting And Cost - Effectiveness In Mass Transit Operations Management Course". NITT Zaria, 18th - 29th, September, 1999.

Kontzs (1983) Herins Weihich Harold Koonts: Third Edition, New York, Management A Global Perspective McGraw -Hill.

Part 3

TRANSPORT SCHEDULING

CHAPTER FOUR:

VEHICLE SCHEDULE FOR EFFICIENT AND SAFE OPERATION IN ROAD TRANSPORT SECTOR

SCHEDULING OF TRANSPORT OPERATION

Transport Operation is a complex activity, which gets more complex with increasing size of operation. To produce service an operator embarks upon series of activities whose aim is to match supply with the demand for transport service in order to satisfy the custom.

Transport operation is therefore defined as an activity involving the efficient combination and management of transport operating resources in order to achieve the operators' desired objective. The basic objective of the operator is to provide the essential quality service which a passenger transport service may offer and to maximize profit.

It is a known fact there exist differences in the ownership pattern (private and public) of transport organization, however, there are certain functions that are performed by operators, which tend to possess same attributes. Thus, from an operational point of view, each company has its own layout and organizational structure. Each company's ownership/organization, legal and economic as well as other internal and external factors are some elements that affect the organization of public transport operators and these elements impose restriction on its operation and hence efficiency.

Recent researches from the point of view of transport indicate that there are seven main domains or functions of transport operation. These functions accordingly to Papionannou and Simoes (1993) are identified as follows:

- (a) Real time control (Operations management).
- (b) Scheduling.

- (c) Passenger information
- (d) Fare collection
- (e) Maintenance
- (f) Strategic planning and
- (g) Management information.

The above functions constitute the series of activities that must be carried out by operators in order to produce service.

From the above, we could see that vehicle scheduling is an important function among the series of activities that must be carried out in order to produce service that will satisfy the wishes and aspirations of the customers. In a way, it is a serious business in the process of journey planning.

WHAT IS SCHEDULING

Oxford Learner's Dictionary defined schedule as a list or statement of details especially of time for doing things. Furthermore, the dictionary sees schedule as a programme or timetable for work. Scheduling therefore involves all the activities carried out in order to prepare timetable for work. In transport operation, scheduling means distribution of vehicles and drivers among various routes being run by a company within a specified time and day in a specified direction. Thus, the timetable for work in order to render the right type of service by transport operator is contained in his scheduling document. The objective of scheduling transport operation is to optimize the use of resources so that the overall service objectives are met.

In general scheduling involves the assignment of data to specific, jobs or operational steps. This assignment is necessary because route planning and scheduling requires an understanding of the various traffic (passenger and cargo) Corridors, the pattern of life

of the people (demand), and the need to link residential communes with the central business districts. It also takes into consideration the route length, the traffic management facilities in route (route configuration), vehicles and operating personnel available.

The importance of scheduling is better appreciated when plans are made to take care of certain problems inherent in transport operation. Such problems or difficulties includes:- accident, breakdown, illness of crew, fuel shortage, oil shortages which may not ensure that services are delivered according to schedule. Therefore, developing reliable schedules, for prompt service delivery on time requires a set of rules to determine the process in which scheduled work will be performed. Such rules includes, detail and unambiguous delegation of functions, crew working hours, (labour legislation), established stock level that must be kept, avoidance of unnecessary bureaucracy and above all trust.

It is only when people trust and use these rules that scheduling becomes a reliable and formal means of communication and thus efficiency and safety of road transport operation is achieved.

TYPES OF SCHEDULING

There are two types of scheduling operations namely:

- (a) Forward scheduling and
- (b) Backward scheduling.

In the service sector such as transport, forward scheduling is more relevant while backward scheduling becomes more handy in the manufacturing sector which ever type, scheduling of service essentially, involves the matching off resources to service type.

In the transport sector for instance, vehicle scheduling is the planning of vehicle journey so that passengers/goods are delivered on the right days so that vehicle is utilized efficiently. In scheduling, the variable factors are time and sequence.

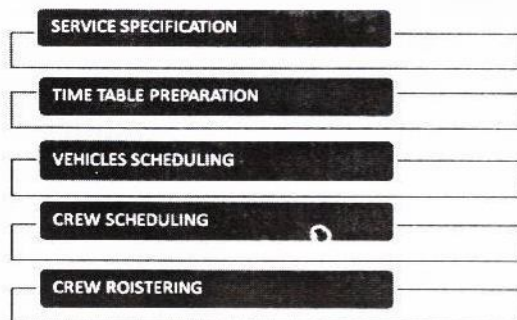
Time is a more critical factor; it determines the service level, the size for the operation that has to be carried out and number of vehicles. Sequencing on the other hand is an extension of the time factor. It determines the order in time for performing the operations. The overall objective of scheduling deliveries is to sequence orders and passengers/loads so that costs are minimized.

STEPS INVOLVED IN SCHEDULING TRANSPORT OPERATIONS

The activities involved in scheduling operation involved five basic steps. They are:

- (a) Service specification
- (b) Timetable preparation
- (c) Vehicle scheduling
- (d) Crew scheduling and
- (e) Crew roistering

FIGURE 3: STEPS INVOLVED IN SCHEDULING TRANSPORT OPERATIONS



From the real time application, scheduling is very complex. This suggests that it must be flexible since each network is unique. In order to arrive at these steps, it is useful for the operators to collect and analyze certain qualitative and quantitative data of the characteristics of each route that will help to make scheduling more meaningful and form the basis for route selection. This will then ensure level and quality of service is rendered. This involves journey planning. By planning the networks the transport operator is able to spread available limited resources to cover demand on the multiple routes on his operating network. The route have to be analyzed using the following criteria that will help to evaluate and decide which routes to be abandoned or which routes services that can be combined.

The data include:

- (a) Population density,
- (b) Level of demand,
- (c) Purpose of trips,
- (d) Walking distance to stops/stations,
- (e) Minimum achievable speed,
- (f) Minimum frequency require,
- (g) Minimum load factor and,
- (h) Minimum waiting time.

Analysis of the above criteria will help a great deal in formulating operating polices concerning halfway services, frequency, waiting time and service speed.

Other factors considered important that will influence scheduling include.

- (a) Personnel requirement - labour cost, crew requirement.
- (b) Station characteristic
- (c) Transport vehicle (sizes)
- (d) System automations

- (e) Available motive power - types of operating power system as a function of availability and cost.
- (f) Operating costs for each alternative.
- (g) State regulation.

FORMS OF SCHEDULING PROBLEMS

There are forms of scheduling problems. They are: (a) Vehicle interference problems

- (b) Route balancing problems.
- © The journey planning problem itself.

Good transportation scheduling must be both feasible and practical to operate. The following factors must be included in the objective for scheduling in order to improve quality.

- (1) The operating time for incorporation in scheduling must have been tested in practices.
- (2) Schedules must have been tested by simulation for a test one complete cycle before being accepted traditionally.
- (3) Vehicles must to utilize efficiently and economically.
- (4) All orders must be delivered to customers on time or sooner.
- (5) The effects of delays must be reduced and the inventory of stock held at warehouses/waiting time at stations must be reduced to a minimum.

CONCLUSION

The use of computer has helped to make scheduling work easy in transport operation. However, in the absence of computer, scheduling of transport operation is very tedious and laborious. It is highly a labour intensive process involving a lot of paper work. It could be done on monthly or weekly basis depending on the

choice of the scheduling officer.

REFERENCES

Oshumubi L. (1989) Planning of operation for Urban Transportation Technologies in Bolade Tunji (Edited) Urban Mass Transit System in Nigeria (1st Edition) Ibadan, Ibadan University press.

Papaionnou P. and Reis Simoe P.F. Technological Innovations in Urban Public Transport in Giannopoulos G. and Gillespers A. (Editors) Transport and Communication Innovations in Europe (1st Edition) London, Belhaves Press.

CHAPTER FIVE

EFFECTIVE TIME MANAGEMENT AND
TARGET DELIVERY

“Every schedule reflects its maker's unique set of priorities and responsibilities. No two people have precisely the same idea of what constitutes perfect time management”

INTRODUCTION

Time Management is a branch of work-study. It is concerned with the planning and allocation of time to activities in the work process. It seeks to measure time in all but exceptional circumstances for the most effective staff. In time management process the activity is carried out several times by different individuals and the average time established for the specific activity of work process.

Time is a scarce resource that should be maximized for improved productivity and timely delivery in the present dispensation of just-in-time transport. The ability to deliver timely and being capable of meeting the customers; target thereby creating value is the hallmark of effective time management. Whichever way time is used, in the workplace, the main thrust is that time is effectively managed only when your relationship with time is a happy one that enables you to meet your professional obligations, enjoy the company of those you love, and take good care of your most important asset - your health. Anything short of this implies that time is wasted and therefore not effectively managed. In this case, we would have failed in meeting our professional obligation which is manifested in failed deliveries, complaints and low productivity.

WHAT ARE THE GUIDELINES FOR EFFECTIVE TIME MANAGEMENT?

In life as well as in the workplace, there is no one-size-fits-all plan for managing time. It depends on who is using time and his perception of the value of time. However, there are basic

principles that apply to a wide variety of circumstances. These principles serve as a guide for effective time management.

They are:

*** Planning**

Planning is the fundamental building block of time management, Planning worth all the time you can put into it. Planning time entails work schedule caution it isn't enough simply to create a great plan or schedule. You must be able to implement it. This means being accurate about the day-to-day realities of your work and other responsibilities; allowing for the usual interruptions, crisis and delays. Planning for time should make allowance for idle time little room to spare for unforeseen. Idle time planning and incorporation of same in time planning has proved to be very effective in time management.

*** Holistic Plan**

The best time management plans are holistic, they encompass the whole of your life, rather than just your working hours. Your time plan therefore must capture the activities for the day. Try in practice the actual scheduling in blocks time for family, friends, exercise or special interests or try to schedule in blocks the work you do in the office and activities carried out by your subordinate, while making provisions for the order activities beyond the office hours. Do not just assign time to the activities schedules first check whatever time is left after the usual daily grind. Doing so will give you a chance to look closely at your present ratio of work to home and leisure time and help you to restore the balance if it has been lost.

*** Set due dates that are not just meetable but bearable**

This is one of the smartest scheduling rules. The main purpose is to somewhat overestimate the time you think a job will take in order to: Ensure on time delivery even in the face of unforeseen delays; and Surprise and delight you boss, clients, fellow staff and

even your family by delivering sooner than anticipated. By breaking a big task into manageable steps, setting a timetable for doing each step, and chipping away at the project, you can accomplish almost anything and with a lot less than by trying to do it all at once.

*** Every major project is unique**

This means that every major project requires its own schedule, timeline or timetable that would identify major steps or milestones on the way to completion if realistic targets dates are set (all things being equal) your progress should match your plan. If unforeseen developments place you behind your projected dates e.g. youth unrest, congestion on the road, accidents, etc). You can alert your boss or client and set a new completion date or steps taken to quicken the progress and make up the lost time. It is always advisable to leave room on your schedule for work-in-progress notes if you can.

*** Delegate job to subordinates, there are two kinds of people**

Those who can

Those who can't

If you are within the second group, you are one of those that have all kinds of reasons for doing things yourself (for instance "it takes too long to explain it to someone else or I end up having to do it all over again anyway").

In this situation, you may have formed the idea of not delegating that it's useless to try. Remember nobody is indispensable in an organization. So find time to delegate certain duties to subordinate. It is easy, begin today. Start with the routine, time-consuming jobs you know someone else can do. Recognize that teaching someone else the job, will take a bit of time, and allow for a reasonable learning curve. The benefits to you, in terms of increased time and decreased stress, will more than repay your efforts.

*** Prepare Priority List**

To prepare priority list does not require that you must be expert in list making. What is required is to arrange in order of importance the things you intend to do, arrange and allocate time to them, keep to the schedule. This method varies. Some people maintain several lists at one; a high-priority one of urgent or very important tasks; a medium- priority one of less urgent or moderately important tasks; and a low priority one of tasks it would be nice to do if and when there is time. Other people simplify the process by making just one list at the end of each day of things to do tomorrow.

*** Do the hardest jobs when attention and energy levels are highest**

To get the most out of your time, try to do your hardest jobs those requiring maximum concentration and peak efficiency at those times of the day when you attention and energy levels are highest. Try to coordinate these jobs those times and periods in which you have fewer interruptions. Also, try to schedule your routine, low-level tasks for times of the day when you find it hard to concentrate. The trick is to pinpoint your hours of peak performance and schedule your work accordingly.

*** Make your time limits very clear**

You may hear people say "Not my job, they say, its five o'clock and I'm out of here". They close office. Do not postpone doing your job. Clear your table within the actual working hours. Most people who leave early are envied by others. Almost everyone ends up working late or bringing work home once in a while, but if you find yourself in this habit, it may be time to start saying no not only to others but also to yourself. Remember that working large and longer hours (overtime) upsets the balance between work and leisure that is essential to your health and well-being. It can equally damage your reputation.

*** Learn and incorporate new and better ways of doing things**

Remember that learning is continuous and therefore we learn everyday. Be open and learn and incorporate new ideas and methods of doing things. In fact, the longer you have been doing a job, the more it is to your credit to devise and explore improved techniques and streamlined procedures. It is always tempting to go on doing things the old way, just because it is the way you have been familiar with. Finding, adapting and applying efficient new techniques to the responsibilities you carry out only saves you time but cuts down on your overall work load and makes you look good in the process, so be innovative and creative.

Target Delivery

The essence of effective time management is to ensure that objectives are achieved. It is therefore not a mere routine exercise. The hallmark of effective time management in transport operation is to deliver on time. Timely delivery of services on schedule is target delivery. The targets are determined ahead of the service through timetable advertisement or promises to the customers and they expect nothing short of the target time, sticking to schedule or promise and being capable of delivery within 5 minutes before or after the scheduled time is target delivery.

Target delivery therefore, creates value for customers since it helps them to plan their journeys or any other activities associated with it. Target delivery therefore requires prudent use and management of time, adequate preparation, forward planning, functional equipment, well maintained vehicles and effective communication (all things being equal).

Target delivery is very important in the delivery of time critical (perishable) goods. These goods must be delivered on time because of limited economic life. Such time critical items include

newspapers, examination papers, wedding items, burial items, birthday items, traveling documents like international passports, flight tickets, drugs and cash transfer. These goods must be delivered on time to the owners without excuses. Besides, this era of electronic devices e-commerce for instance, goods purchased through electronic means must be delivered physically to the owners doorstep on time, otherwise the essence is lost.

Therefore, an astute management must have full control of both the internal and external environments and plan his delivery so that he will deliver on time. In this case, he creates values by reducing tension and anxiety. To achieve this requires full and total control of the entire supply chain and logistics process. The facilities and infrastructure must be taken care of on time for each process along the supply chain.

It must be monitored and any delay must be noticed and corrective action taken. It requires effective communication, careful planning and tracking to achieve target delivery. This is achievable; it requires delegation and monitoring of the human element activities along the supply chain structure.

Part 4

**PERSONNEL ISSUES IN
TRANSPORT OPERATION**

CHAPTER SIX

GROUP DYNAMICS AND EFFECTIVE TEAM BUILDING

INTRODUCTION

What is Group Dynamics?

In a social setting, individuals gather to perform certain functions assigned to them. Performing different functions to achieve the objectives of the organization suggests interaction among the different sections, departments and units. In other words, there are group of people working together for common goals. Consequently, any time there are three or more individuals undertaking a task or talking together, there are group dynamics. Group dynamics therefore refers to the interactions between people who are talking together in a group setting in our case ABC Transport Plc. It is concerned with the interactions and forces between group members in social settings when group dynamics is applied to a business organization like ABC Transport Company Plc on the behaviour of its members; the forces are on the formal or informal groups in the organization. In that case, the internal dynamics consists of things like experiences, seniority, fear, shyness, ignorance of the process etc. Others include promotions, transfers, remunerations, bonus payments and overtime payments. In addition, we have failure to meet target, late delivery; inability to adhere to scheduled time, ticketing and billing and tagging, etc.

Group dynamics in a going concern organization like ABC Transport Plc could be viewed from the perspective of how a group should be organized and conducted. In this case, we are concerned with democratic leadership, member participation, and overall cooperation within the organization.

On the other hand, group dynamics in service industry could also be looked from the point of view consisting of a set of techniques. Here we have role-playing, brainstorming, leaderless group,

group therapy, sensitivity training, transactional analysis etc.

Group dynamics could also be viewed from the perspective of the internal nature of the groups. How they are formed their structure and processes and how they affect individual members, other groups and the organization in achieving the set goals.

The foregoing has shown that there is no one-fit-all approach to group dynamics. However, what is clear is that group dynamics exists where you have more than three people talking together. The essential thing is that there are interactions, communication and cohesiveness among the group. What is important is how management can use the activities of group dynamics to achieve set goals. This is achieved when groups are used to solve problems. It is known that groups are formed for two things namely:

- (a) Social purposes e.g. celebration
- (b) To get something accomplished.

In the case of (b), there will be some form of problem solving required of the group. It is the second case that is of much interest to an organization. It is when a group is trying to accomplish something, for instance, set targets that interactions or dynamics become stronger, especially if the group is under constraints in time and resources. There are many examples especially in a committee or task forces where there are constraints of time and resources to deliver specific assignments. In this case individual skills and tactics are brought in thus invoking stronger interactions among members making the group cohesive and effective. In a way, successful group problem solving depends essentially on good communication among members through information sharing. Consequently, group dynamics is all about the interaction and force between group members in a social

setting.

THE DYNAMICS OF GROUP FORMATION

Why Do Individuals Form Into Group?

In an organization like ABC Transport Plc, groups are formed for the following reasons: (a) Economic (b) Security (3) Social reasons.

Economically, workers may form a group to work on a project that is paid for a group incentive plan or for a union to demand higher wages.

Security, people form groups in order to provide the individual with a united front in combating indiscriminate unilateral treatment. The important reasons why individuals join or form groups is that groups tend to satisfy the very intense social needs of most people. Workers generally have a strong desire for affiliation.

In addition, groups are formed due to proquinguity that is location, closeness, work and task sharing. For instance, individual in departments, units or those that perform similar tasks tend to interact more than those far apart. Managers with offices close by interact more than those separate and are disperse. Also people form groups when they are attracted to each other on the basis of similar attitudes toward commonly relevant objects and goals. Once a relationship is formed through this process, it strives to maintain a balance between the attraction and the common attitude.

Another reason why groups are formed in an organization is the so called exchange theory. In this case there is an expectation of reward costs outcome of interaction. A minimum positive level (i.e. rewards greater than costs of an outcome must exist in order for attraction or affiliation to take place. Rewards from

interaction gratify needs while costs incur anxiety, frustration, embarrassment or fatigue. For instance, when cartel is formed with the view to cheat or defray the company. During this period you would notice an intense interaction between the groups.

The attraction is the easy money made in the short period. Group dynamics therefore results in activities, interactions and sentiments of individuals in an organization.

A full understanding of the group dynamics would indirectly contribute to a better understanding of the organizational behaviour.

IMPLICATION OF GROUP DYNAMICS

Organizations are interested in-group dynamics because of the following implications:

Groups are everywhere

Groups influence on employee's perceptions and attitudes

Groups influence the productivity of employee

Groups and individual in satisfying unfulfilled needs

Groups facilitate communications

EFFECTIVE TEAM BUILDING

What is a team?

Team is a group that has a job to do. It is a group that has spent some time together. It is also a group working together on something. It is a group that achieves cohesiveness. A team's strength is found in the relationships among the team members. It is a group with a common objective, whose members are very clear about working toward one purpose. It is group whose members are interdependent. Consequently, team members rely on the strength of each member to accomplish the objective.

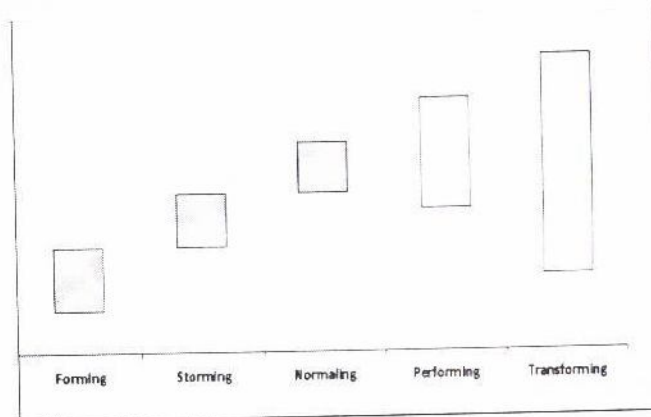
STAGES OF TEAM BUILDING:

Effective team building has predictable stages of development that involves time and effort. The stages of development are:

- a. Forming
- b. Storming

- c. Normaling
- d. Performing
- e. Transforming

Success Complexity



'Forming' is the initial stage of development when one is recruited or posted to a new office. Here team members may have different ideas about purpose. There is relatively little trust; people tend to be careful about what they say, and how they say it. Everyone is on his or her "best behaviour".

'Storming' represents the arguments that will likely occur as team differs itself. Here you ask questions of how things are done. You go through the records of handover notes. There may be conflict about the purpose, leadership and working procedures. During this stage, people often feel the team will never 'come together'. Every member wants to act out.

'Normal' is the stage that occurs when the team members are developing a shared vision and are setting goals and objectives. Staff are getting to know one another's strengths and are learning how best to work together. The team experiences more stability and productivity. Targets set are achieved.

'Performing', indicates that members now have a clear, shared sense of purpose, high trust, and open communication. The team is effective within the existing situation; relationships and team spirit are high.

'Transforming' occurs when the team is at such an effective level of functioning that it can define its shared purpose and respond quickly to change. The leadership within the team is shared. Trust is high and communication is open. Managers and section heads can at this stage delegate functions. Targets are met. At this stage everybody is happy innovations are introduced, customers' requirements are met thereby creating value.

Effective team building is a process that involves stage of development that consumes both time and effort in order to achieve success. We should not know things about the stage of team building. These are:

It's helpful to know that there are stages, and that it is normal to go through these stages.

One can identify the stage of development for a given group or team and can assist the progress through the stages by managing the interactions or dynamics between and among the members. If there is low trust, one can arrange for trust-building exercise if the team is not in agreement about its purpose, targets or goals, they would be helped to have common priorities. Effective communication is needed here.

CONCLUSION

In conclusion, customer value is enhanced by building an effective team through the appropriate harnessing of group dynamics. This is achieved after a long period of staying together. Communication here is very effective and members of the group understand each other. In other words, there is cohesiveness among members.

CHAPTER SEVEN

INTERPERSONAL RELATIONSHIP/INTERDEPENDENCE OF DUTIES IN A BUS TRANSPORT COMPANY

INTRODUCTION

Every organisation has aim/targets for which the founders of the organisation set for themselves. To achieve the target, the founders made use of full complements of resources, both human and materials in the pursuit of the objectives. To have perfect mix of these resources, the rational managers employ a combination of different categories of men knowledgeable in the various processes leading to the production of the company's product. This means that different people in different fields will be brought together to achieve the corporate goal - maximum profit. In away, there is division of labour hence specialization. This will lead to efficiency in the production of service. Coming together of different people means that a social group has been found with different actors. The social system in this case ABC Transport is therefore the interaction between and among social actors, such interaction being - communication. It is against this background that the course interpersonal relationship / interdependence of duties in bus transport have been organized.

THE NATURE OF BUS INDUSTRY

The bus industry is by nature a service - oriented enterprise and much more, it, is to a very large extent a person-oriented service. Great care therefore must be generally taken in dealing with bus service otherwise, great loses will be incurred. Loss in financial term is indeed serious but loss in confidence which results from breakdown in communication and interaction is greater since we have our eyes on consolidation and future. This loss can be avoided if we are all aware of the existence of interdependence of duties in the production of transport service in a typical bus industry like A. B. C.

We know that all forms of transport are characterized by the extreme perishability of the product and indivisibility of the carrying system at least in the short run. Therefore, our product cannot be stored. Seat kilometres once produced and not consumed perish in the moment of production.

This is essentially an economic problem but it has a lot to do with the individual attitudes of the work force. Given adequate capital, there is no doubt that the stage has the state-of-the-art technology, to meet all levels of demand. Given adequate supply of labour, the vehicles too can be manned. But the problem becomes a little difficult by the demand characteristics in daily peaks. It is this factor that distinguishes the commuter peak from the seasonal holiday peak and it is at times like this that the degree of cohesion and commitment among staff is proven. This testing period has the potential to mar or enhance the reputation of the company.

INTERPERSONAL RELATIONSHIP/INTERDEPENDENCE IN BUS TRANSPORT

Human organisation has been defined by Simon as system of interdependent activity, encompassing at least several primary groups and usually characterized, at the level of consciousness of participants by a high degree of rational direction of behaviour toward ends that are objects of common knowledge.

This means therefore that in ABC transport, to achieve the target set by management require, the activities of all the various departments and units which are consciously directed toward ends. This direction connotes interaction among the people involved. Thus all the activities and functions performed by each department are aimed at the production of service. They therefore interact and depend on group cohesion for the

achievement. To achieve this, the various groups are bind together on a body of rules and regulation called 'bonds or organisation.

These bonds or devices of the organisation are identified as

- (a) The functional specification system i.e. a system of team works arising from goal specifications and arrangements for association.
- (b) The starting system (i.e. vertical hierarchy of authority)
- (c) The communication system
- (d) The reward and penalty system
- (e) The organisation character, ideas and means which give character and individuality. to the organisation) e.g. the things that make ABC thick - scheduled departure, entertainment of board, accident scheme etc.

PERSONAL NETWORKS AND THE SOCIALGRAM

Like all groups of significant duration, primary and secondary group develops on intersectional structure that is a patten on of relationally stable relations for ways of behaviour among members. To some extent, the structure of a group is reflection of the feeling its members have toward one another as persons. One can therefore imagine line of attraction and repulsion between various members. That is holding the group together in some ways and putting it apart in others. (Therefore, the sociometric test will be devised to uncover the attractions and repulsion). This can be done by asking the members of a group, whom they would choose to play with or work with or to service as a leader. Based on the responses, a sociogram may be constructed

FRIENDS AND NETWORKS

In a social area characterize by instability, each person has a network of interpersonal relation, this often assumes the character of kinship although no kin tries may be involved.

Friendships are quickly made and they are invested with a parent significance that would take much longer time to develop in a stable social environment. Friendship here dissolves as quickly as they are developed e.g. in a bus station. This only happens in primary relations in a social environment not conducive to stable and prolong social interactions. However, in a stable social system like ABC, friendship network developed for interaction. It could be face to face contacting man to man contact for help in time of emergency for confront or even support. This type of friendship is anchored in kinship, sometimes in long term association, others emanate locally. These are friendships that are built on neighbour on co-worker relationships. It is equally anchored on a shared experience or other events or situation, which brings two people together in a special ways.

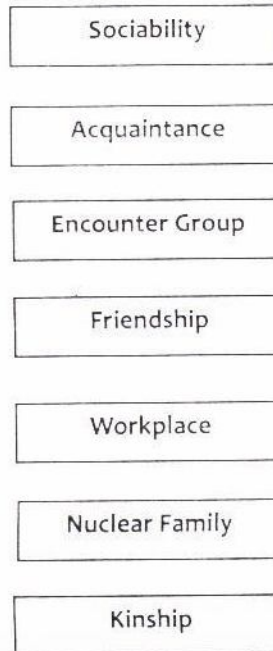
In general therefore, close friendship in a stable organisation tend to development out of association with those who' are already in one's network of personal relationships and interaction and who live in the area and spend much of there time on the street or public place or co-workers. Co-workers make friend out of themselves or people near by or their kinsmen. This increase in interaction is necessary for group cohesion.

GROUP COHENSION

For interpersonal relationship and interdependence of duties to persist in a stable organisation there must be group cohesion. This makes each individual to get himself / fitted into the group. This is the work of the organisation bonds.

In addition, other essential ingredient is the level of commitment and intensity of interaction. The intensity of interaction increases group commitment thus creating a conducive environment for social' fillings and interdependence of duties.

THE CONTINUUM OF COMMITMENT SOCIABILITY



The following is the flow of commitment in an Organisation

Intensity Of Interaction	Low	Acquaintance Fellow Passenger	Kin (dispersed)
	High	Encounter Groups	Work place Nuclear Family

It could be observed that in the work place, there is high commitment and high intensity of interactions. This gives the work place the group cohesion required for an efficient provision of services thus the achievement of the organizational goal of maximum profit.

INTEGRATING ORGANIZATIONAL GOALS

One major problem of interpersonal cohesion in an organization is the lack of ability to integrate personal and organization goals.

The personal goal is the subset of the organisational goal in which the individual works. High productivity results in the achievement of the organisation's goal and by extension the individual goals. Since everybody has a programme or aspiration for growth hence the needs to join a work force. Once one is employed, his personal goal is now subsumed in the work context of the employer. Being able to appreciate the goals of the employer is a fundamental exercise.

The necessary step towards integration of both the personal and organization aspiration is covered under the bonds of organization.

In addition, the employee should see himself/herself as a member of a new family with the employer as the parents. This suggests high commitment and high intensity of interaction as necessary conditions for group cohesion.

CHAPTER EIGHT

MANAGING EFFICIENCY FOR SUSTAINABLE GROWTH IN A BUS TRANSPORT COMPANY: ISSUES AND STRATEGIES

INTRODUCTION

This is yet another end-of-year period when managers of ABC Transport gather to consider various issues and exchange ideas on how best to carry on with the operation in the midst of many constraints. I am indeed very happy to be considered again to participate in this year's programme with the theme "*Managerial Efficiency: A Tool for Sustainable Growth*". This theme is indeed very appropriate in order for ABC Transport to maintain its lead in the transport industry. I have therefore decided to speak on the topic: 'Managing Efficiency for Sustainable Growth in a Bus Transport Company: Issues and Strategies'.

WHAT IS EFFICIENCY?

A company can be viewed as a device for transforming inputs into outputs. Inputs are basic factors of production such as labour, land, capital, management, technological know-how, machinery, etc. Output is the goods and services that a company produces. In our case it is the amount of freight moved and number of passengers carried per day, week, months, and yearly.

Specifically, a company like the ABC Transport is concerned essentially with its level of productivity measure which is a ratio of output to input. Output is usually a measurement of quantity of products or services produced and input is the quantity of scarce resources consumed in the production or service. Productivity therefore according to Harry Ford is the measure not of how hard we work~ but of how well we use our intelligence, our imagination, and our capital. Productivity also implies effectiveness and efficiency in individual and organizational performance. Effectiveness is the achievement of objectives.

Efficiency on the other hand managers cannot know whether they are productive unless they first know their goals and those of the organization. In the transport industry, therefore improved productivity equates to hauling more freight and carrying more passengers with better efficiency at least cost and time.

Efficiency therefore, is measured by the cost of input required to produce a given level of output over a period of time.

EFFICIENCY AND GROWTH

As companies grow, the average cost of production tends to reduce due largely to increase in the volume of production. The increase in the volume depicts the stages, associated with the life cycle of every industry. Experts agree that every industry passes through various stages otherwise called the industry life cycle model. Using the industry life cycle model we can identify five industry environments, each linked to a distinct stage of an industry's evolution. They are:

1. An embryonic industry environment
2. A growth industry environment
3. A shake out environment
4. A mature industry environment, and
5. A declining industry environment

The ABC Transport Company I believe has passed the embryonic environment having survived the harsh competition of old transport companies over the past 10 years or more. The ABC Transport company during its embryonic stage was not only able to penetrate into the transport market with all the competitions associated with it but was able to surpass them by winning award of the best in the industry for two years now. This award did not just come. It came through hard work manifested in the

managerial efficiency. We have no doubt that ABC Transport Company has progressed into the growth industry environment in the transport industry. The growth in the demand of ABC Transport Company services attest to the claim. We are now experiencing rapid expansion in the demand of ABC Transport services.

Presently, ABC Transport Company Limited is growing because consumers of our products have come to know ABC Transport with its varied products and excellent services of scheduled departure, entertainment onboard, accident bonus, discount to children and other incentives such as the Gold Card preferential treatment. This growth and expansion is such that it has gone beyond the shores of Nigeria to Accra, Ghana in the West African coast.

The superior quality in ABC Transport service plays a major role in achieving super efficiency. One way of achieving superior efficiency is by gaining economies of scale and learning effects.

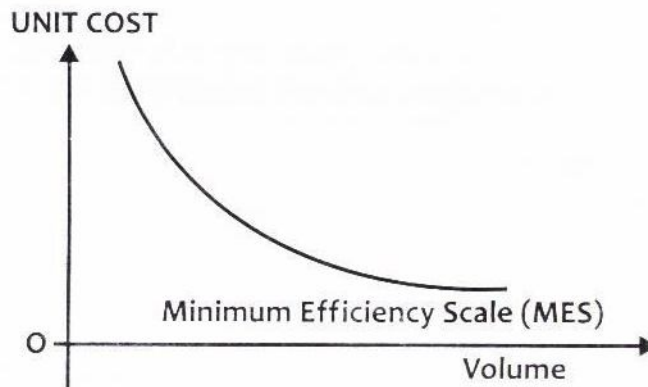
Economies of scale are unit cost reduction associated with fixed costs over a large production volume. Fixed costs are costs that must be incurred to produce a product whatever the level of output. They are, the cost of machinery, costs of advertising and management cost.

As organizations such as ABC Transport Company expands and becomes successively more efficient by producing in large volume, it stands to achieve greater efficiency through the following:

- Division of labour and specialization, it reaps the benefits of economy of scale.

- Increasing possibilities of using advanced technological developments and larger machines.

Specialization in turn is said to have a favourable impact on employee productivity mainly because it enables individuals to become very skilled at performing a particular task. These economies of scale do not continue indefinitely. Indeed experts agree that after a certain minimum efficiency scale (MES) of output is reached, there are few if any additional scale economies to be had from expanding volumes.



Another factor that has impacted on efficiency is the learning effects. The learning effects are costs savings that come from learning by doing. Labour, for instance, learns by repetition (for instance a ticket clerk) how best to carry out a task. In other words, as labour productivity increases over time and unit costs fall individuals learn the most efficient way to perform a particular task.

Learning effects have been observed to be more useful in complex organizations such as ABC Transport no matter how complex the task. However learning effects typically die after a limited period of time. Indeed it has been suggested that they are really important only during the starting period of a new process and cease after two or three years.

In addition the experience curve will also enable an organization to increase its efficiency level since the economy of scale and underlie the experience curve phenomenon. In other words as a company increases the accumulated output over time it is able to realize both economies of scale and learning effects. Consequently unit cost falls with increasing accumulated output.

In spite of all the above, the position that a company takes with regard to pricing, promotion, advertising and design can play a major role in boosting a company's efficiency. Also managerial effort could help to increase efficiency. For instance unit cost is observed to fall each time additional vehicles are added to the fleet.

However, there are limits to growth in spite of all the variables that accelerate growth and enhances efficiency. Such variables that can impose constraints on economic progress include the following: a good number of political policy such as fiscal policy, labour regulations, business restrictions, changes in the prices of petroleum products and foreign policy.

These and other constraints may limit managerial excellence. Qualified managers can do more to bring about economic progress by identifying constraints and designing approaches to solving them. These limitations are called diseconomies of scale (sizes). We should note that as the size of the organization increased, management like other labour tends to be more efficient through division of tasks and specialization. However, beyond certain size the difficulties of co-ordinating and controlling the organization multiply rapidly. During this period, the contact of top management with the day to day operations of the business become more and more remote causing operating efficiency in the entire organization to decrease. This is the problem of growth in most organizations. Experienced management at this period evolves strategies that will stabilize the growth process. This strategy that involves conscious efforts

on the part of management through planning to stabilize growth is called sustainable growth.

MANAGING EFFICIENCY FOR SUSTAINABLE GROWTH

Efficiency in a transport company can be managed for sustainable growth by examining in detail, each activity involved in the production of services. To that end, time studies, motion studies and statistical data are to be determined. This involves the determination of average time of carrying out an activity. For instance, issuing a ticket, to board a vehicle, organising departure, packaging loads and collection of materials by bus attendants. Others include collection of travel documents and trip allowances by the drivers, release of materials by the stores, release of money by the accounts departments, issue of spare parts, flow of information, treatment of mails, handling of case, and repair of equipments. In addition to overtime control amount of delays experienced, paper work required and the resultant paper flow and manpower scheduling techniques. This also includes effectiveness of supervision and tonnage of goods handled. After collecting evaluating and writing up these vast amounts of information. The station manager must be able to establish a benchmark for carrying out each activity involved in the transport operation. The information collected and analyzed must be made available to management for specific plan of actions in order to correct any operational practice that tends to be inefficient. By carrying out the above activities, the organization will generate a data bank for planning operation. The information collected will help to detect deviation from the standard time and appropriate corrective measures taken. These measures will help to improve on efficiency hence the improved productivity of the organization.

PERTINENT ISSUES IN EFFICIENCY MANAGEMENT FOR SUSTAINABLE GROWTH

There are basic issues that are necessary for improved efficiency in an organization. They include: setting standard for efficiency improvement. This can be done through benchmarking of the time taken to complete a particular activity. There is therefore the

need to embark on work-studies, time and motion studies to determine the average standard time for each activity. Perhaps the research and development and planning unit could do better in this regard in order to maintain high level of efficiency for sustainable growth over the period.

The collection of necessary information on various sources in terms of time and costs of delivery services is therefore a serious issue if increased efficiency is to be maintained for sustainable growth.

STRATEGIES FOR IMPROVED PRODUCTIVITY

There are certain strategies available for an improved efficiency in the organization. The management of available human resources is one strategy for superior efficiency. Employee, productivity is one of the key determinants of an enterprise's efficiency and cost structure. The more productive the employee the lower will be the unit costs. The challenge for ABC Transport Company's human resources function is to device ways to increase employee productivity through the appropriate and adequate measures.

This can be done in three ways namely:

- Training employees;
- Organizing the workforce into self managing teams;
- Linking pay to performance.

In the case of training, this has some bearing with skill acquisition. Highly skilled workers tend to be more efficient than less skilled personnel. Individuals who are more skilled can perform tasks faster and more accurately. They are equally more likely to learn the complex tasks associated with many activities involved in the production of transport service. Training can upgrade employee skill levels thereby bringing about the company's productivity-

related gains. Commitment to improving the skill level of employees through training is one major source of competitive advantage that could lead to superior performance which is capable of enhancing the efficiency of an organization. Skill acquisition can be carried out in the following ways:

- By encouraging off-the-job training;
- By encouraging skill development through part time courses;
- By participation in team activities:

Organizing the work force into self managing teams will task the supervisor's efficiency such that the work force will develop self motivating devices for carrying out duties.

Another strategy to increase efficiency in an organization is through the introduction of total quality management techniques in the organization.

CONCLUSION

We shall conclude by observing that efficiency improvement in organization is very necessary for a sustainable growth. Therefore, adequate planning is needed for improved efficiency. This requires benchmarking through careful study of all activities in order to establish standard. Achievement of the standard targets requires skill improvement. This can be acquired through training and teamwork.

CHAPTER NINE

STAFF DELEGATION, MOTIVATION AND PRODUCTIVITY IN A BUS TRANSPORT COMPANY

INTRODUCTION

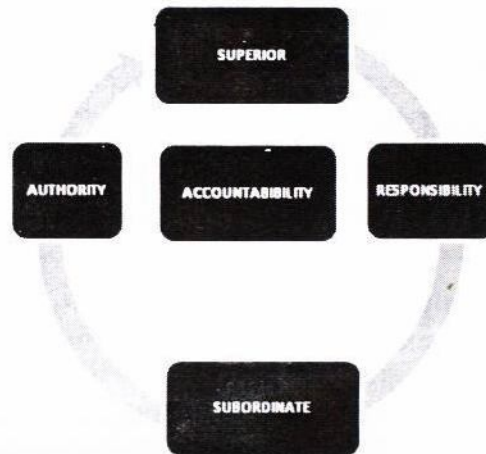
Over the years, it has been observed that the crises in the accomplishment of objectives has been occasioned by poor management, and the critical success factor in solving the problem of poor management is the treatment of staff. In the same vein, modern management agrees that the human factors will facilitate or limits the overall progress expected of an organization. The quality of management how she delegates functions and motivate workers in turn affects productivity. Hence Wilson captures it all when he said "if you dig very deep into any problem, you get to people; and miles, added that the manager's roles is that of facilitating goal accomplishment by removing the barriers limiting the group's performance".

In addition, industrial psychologists are of the opinion that a staff can perform at the optimum level when motivated. The issue now is to search for those measures which would increase the productivity of staff in a transport organization like ABC Transport Limited. This search led to the topic: Staff Delegation, Motivation and productivity.

STAFF DELEGATION:

What is delegation? This is the act of holding a subordinate accountable and involves the giving of responsibility and the requisite authority.

Figure 2: Delegation Process



In delegation, the subordinate is given responsibility for the use of certain resources. They include"

- Staff
- Money
- Material, Equipment, etc.

These are the essential resources used in transport operation. Delegation without control is abdication of ones duties. This control is very essential for delegation to achieve its aim; control in this case consists of:

- A plan
- Information .(Feedback on performance against plan)
- Action to correct deviations. When an action is got through delegation, always motivate by recognizing work well done.

CONDITIONS FOR ACCOUNTABILITY

For a subordinate to be fully accountable through delegation, the following conditions must be in place since responsibility is only possible when:

- (a) Responsibility are clearly understood and agreed. This could

be written or verbal. Here superior and subordinate must both agree.

(b) Authority must match responsibility. Note that no one can be held accountable unless he had enough authority to fulfil his responsibilities. This authority must include.

(a) knowledge of the work which he is responsible

(b) position (structure authority) to direct and control whatever other staff are involved.

(c) willingness to be accountable. The superior responsibility to motivate subordinate to want to be accountable is an important one. Real authority stems from a desire in the subordinate to meet his responsibilities. Willingness to be accountable will come from involvement of the subordinate in.

(a) Defining his own responsibilities and the limits of authority.

(b) Setting his own objective, which should be achievable?

(c) Devising methods of monitoring his own success (MBO)

Positive willingness to be accountable will grow as a subordinate measures his success against clear targets.

BARRIERS TO DELEGATION:

There are some barriers to effective delegation in an organization. They include

(a) Subordinate not trained.

- Training involves
- On the job training
- Class room training (course)

Most superiors fail to properly train their subordinates.

(a) Management principles not understood (e.g. delegating

responsibility without sufficient authority).

(b) Lack of confidence in subordinate's ability, may be the superior failed to develop his subordinates.

(c) Lack of self-discipline. The boss must allow subordinates to make mistakes. Standard expected may be too high.

(d) Fear that some one else will prove better leading to loss of won authority: Every boss should also watch this syndrome in his subordinates.

DELEGATION-RULES FOR SUBORDINATE:

(1) Don't expect perfection. Your superior has faults as well as virtues. Don't magnify either and avoid being disillusioned.

(2) Be objective. Understand your superior's abilities and deficiencies.

(3) Keep your superior informed. Many of his decisions are based on your information ensure it is accurate.

(4) Learn to anticipate. Relieve your superior of detail when problems are identified think of solutions before reporting them.

(5) Give loyalty - A leader is entitled to loyalty. If you find this impossible please leave the organization.

DELEGATION-RULES FOR SUPERIOR

(1) Be impartial. Don't be one of the boys. This does not win loyalty or respect.

(2) Keep subordinates informed. Nothing is more frustrating than lack of information. Well-informed managers make decisions and are better motivated.

(3) Recognize talent. You never lose credit by giving it to someone. This builds loyalty and team work.

(4) Protect the interests of your subordinates. They only way to get loyalty is to give it. Accept responsibility for failures. Criticize subordinates but not in public and don't expose them to under criticism from someone else

- (5) Be aware of your deficiencies.

MOTIVATION

What is motivation? Motivation refers to any activity that has a goal towards which action is oriented. In business, motivational action is called work. To want to act is true motivation. Motivation is an internal state-normally triggered by incentives.

According to Clark Hale, motivation refers to "those factors that energize and regulate behaviour directed towards achieving goals and satisfying needs". Anderson and Fault see motivation as 'the outcome of exposure of organism to an arousing stimulus or deprived of a reinforce". To this, we may add that what is meant by motivation for the staff of a transport company is the resource provided by the organization to encourage its employees to perform up to a certain level of expectation.

BARRIERS TO MOTIVATION:

- There are certain factors that tend to demotivate workers in an organization. Such factors are referred to as barriers to motivation. And they are two kinds
- External barriers and internal barriers.
- Economic Insecurity
- Discriminatory practices
- Hostile superiors and managers
- Monotonous Jobs
- Internal barriers
- Poor work habits
- Dysfunctional personality
- Poor aptitudes

INTRINSIC AND EXTRINSIC MOTIVATION

Fringe benefits and increased pay have become an important aspect of payroll. Companies provided housing allowances, and other incentives. these are normally established in the hope that employers would show more loyalty and motivation. There are two types of motivations. They are;

- Intrinsic
- Extrinsic

(a) INTRINIC MOTIVATIONS:

Intrinsic Motivators benefit employees on the job, logically work harder when they are provided with comforts and when the work is enjoyable and rewarding. Examples includes

- Canteen service
- Staff cars/buses
- Bonus, Profit sharing, Equity Participation

Furthermore, Ibe (1996) defines productivity as the optimal utilization of resources of both men and materials to achieve an increased level of output over a given period of time.

Productivity has three major components namely:

- Outputs
- Inputs
- Time

FACTORS OF PRODUCTIVITY

The level of productivity in an organization depends on two major factors namely, human or worker's scales and technical factors like quality of equipment utilized in the process, quality of raw materials and methods, or techniques adopted.

Nwachukwu (1988) states that the factors that influence productivity of an employee in an organization include:

- Ability
- Technological know-how or skill
- Physiological drive
- Managerial ability
- Attitude and technology employed

It is, therefore, the function of management to devise ways of encouraging higher productivity by taking measures that will make the working environment congenial for the workers. The above is based on the realization that an individual's efforts, abilities, traits and task perception determine his performance.

Performance in turn is influenced by environmental factors. The environment factors are seen to influence performance in three directions namely:-

- Efforts (energy expended and task)
- Abilities and traits
- Perception i.e. task direction.

FACTORS AFFECTING PRODUCTIVITY OF BUS TRANSPORTATION IN NIGERIAN

The following factors have been observed to affect the productivity of bus transportation in Nigeria in a negative way.

The factors are:-

- Poor traffic engineering and management
- Accident
- Personal integrity of individuals
- Lack of commitments
- Poor remuneration
- Training and retraining
- Absence of standard workshops and special tools
- Attitude of the maintenance staff
- Attitude of the operating crew
- Ignorance of the value of time