

Level Contributions of Labour, Capital and Human Resources in Productivity of Transport Firms in Nigeria

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Abstract

The extent of damage to the Transport Industry in Nigeria can not be overemphasized. This problems arise from the lack of critical and vital information concerning the extent of manpower development in the transport industry in Nigeria. In addition, information on the quantitative relationship between manpower developments, labour, and capital investment and the level of corresponding productivity are not readily available. Therefore there is need for extensive research on the on the relationship between the relationship between human resource development, labour and the capital investment and related productivity in the Nigerian Transport industry. Therefore the objective of this study is to ascertain the significant contributions of the above mentioned variables to the productivity of the transport industry as a whole. The Primary data sources comprised of directed questionnaires that were administered to the parastatals and transport firms of all modes of Transport (land, sea and air). Secondary data sources comprised of existing documents that have been published from various transport organisations. Data collected form the study were analysed using the regression analysis ($Y=B_0 + B_1X_1 + B_2X_2 + \dots + (v-u)$) and the application of the frontier model can be influenced by human capital inputs was further applied to determine the extent to which productivity and efficiency of transport firms. From the results of the analysis it was discovered that majority of the workers in the transport industry were unskilled with only a few workers possessing higher degrees. Although, positive relationship was observed between the between human resource effect and the productivity and in conclusion it was seen that effects of productivity in transport firms in Nigeria depends largely on labour and capital inputs than on human resource effect.

Keywords: human resource effect, productivity, transport, labour, capital, aviation, maritime, inputs, output, frontier model.

1.1 INTRODUCTION

According to Ibe (2005), transportation is not just an intermediate goods between production and consumption but a major variable any governments agenda for equitable economic growth . He reviews transport as a key element for the movement of goods and people and a necessary mechanism for people to lift themselves out of poverty. Hence, a critical component of infrastructural base that permits the development of business and wealth creation . the railway is one mode of transportation and also a prime mover . the railway is the cheapest and the most economical means of conveying commodities by land. This implies that the railway has the capacity to convey large volume of goods from at a cheper rate over long distances. However the present situation in the Nigerian railway system indicates a railway that is not developed, accessible and connected . it has only 3505 tracks for a population of over 140,000,000. He further clarifies that the road transport overtime has been developed with non-professionals .

Nigeria, has in the last half a century, witnessed a chequered history in the development of her maritime industry which cannot develop in isolation. Human and material resources are needed for her optimal development in comparison with the advanced countries of the world whose economic powers are traceable to the development of her maritime sector. Therefore the sea farers, dockworkers, port manager's stevedores

and many other maritime workers role to the development of the subsectors is indeed inevitable regardless of the level of the automation in the ships , computerisation oof port activities and cargo handling techniques.

1.2 PROBLEM IDENTIFICATION

The lack of continuous and vital information concerning the extent of manpower developopments affects the the overall productivity in the transport industry in Nigeria initiated the need for this research . Syran (1997)reveals that past planners in the transport industry failed to make investment in the human resources developments , which is acentral theme for for development strategies. He firther reveals that it was due to partly the problem of distinguisjhing the what part of human resource development and the represents an investment and what party of it represents a consumption. While investment in human resource promotes economic growth county's economic economic als o determines its ability to invest in its human resource . according to dny and Vind (1993) , earlier developmet strategies , which largely neglected the social aspects of developments dis little to promote growth and this resulted to political and social unrest in several countries.

Drunker (1997), maintains that high productivity depends on the quality of human capital and the extent to which human resources are used. He advices the underdeveloped countries to borrow a leaf from the developed countries in that respect . Wyckoff (1996) supports that education, management and training shorten the time-span within which a country with low wage cost can achieve higher productivity. However with higher productivity wages will rise. This is because human resource developments contribute to a more equitable distribution of income. it therefore negates the necessity for compulsory distribution measures (such as through the tax system which usually have negative consequences .

2.1 REVIEW OF LITERATURE

DEFINING THE KEY CONCEPTS TRAINING AND DEVELOPMENT

Some authors use the terms “training” and “development” as synonyms. However, some view the two concepts as being different. Jones, George and Hill, (2000) believe that **training** primarily focuses on teaching organisational members how to perform their current jobs and helping them acquire the knowledge and skills they need to be effective performers. **Development** on the other focuses on building the knowledge and skills of organisational members so that they will be prepared to take on new responsibilities and challenges. In the viewof Adamolekun (1983), staff development involves the training, education and career development of staff members. The purpose of training and development has been identified to include: creating a pool of readily available and adequate replacements for personnel who may leave or move up in the organization; enhancing the

company's ability to adopt and use advances in technology because of a sufficiently knowledgeable staff; building a more efficient, effective and highly motivated team, which enhances the company's competitive position and improves employee morale; and ensuring adequate human resources for expansion into new programs. http://www.zeromillion.com/business/personnel/employee_taining.html).

As a way of summary, the purpose of training is to improve knowledge and skills and to change attitude (Mullins, 1999). Mullins argues further that training is capable of producing the following benefits:

- Increase the confidence, motivation and commitment of staff;
- Provide recognition, enhanced responsibility, and the possibility of increased pay and promotion;
- Give feeling of personal satisfactionand achievement, and broaden opportunities for career progression; and
- Help to improve the availability and quality of staff.

THE ROLE OF INSTITUTIONS IN MANPOWER TRAINING AND DEVELOPMENT IN NIGERIA

The need for training institutions in Nigeria can be traced back to 1896 when some educated persons in Lagos proposed the establishment of a Training College and Industrial Institute. Though the idea was supported by the British government, it was not ready to make financial commitment.

The lack of financial commitment on its part and the inability of the initiators to raise the required funds led to the demise of the proposal. Later, more concrete moves were made to establish institutions of learning in the country to cater for the acute shortage of manpower. The post independence efforts to develop a training system for the Nigerian civil service can be traced to Professor C.P. Wolle's survey of 1967 on the Training Needs of the Federal Civil Service. (Erero and Ayeni, 1992). The federal government commissioned the then Institute of Administration, University of Ife, Ile-Ife to carry out a survey on the training needs of the civil service. The study was

conducted and a report was submitted. The federal government came out with a White Paper on the Report in April 1969. The document titled "Statement of Federal Government Policy on Staff Development on the Federal Public Service" has the following key elements:

- the appointment of Department of Training Officers with responsibility for assessing staff development needs and preparing and implementing programmes to meet these needs;
- the reorganisation of the Federal Ministry of Establishments to give greater priority to training;
- establishment of a Standing Committee on Staff Development;
- encouragement of every large ministry/ department to establish a training unit commensurate with its size and function; and
- the establishment of the Administrative Staff College of Nigeria (ASCON). Despite the recognition of the need for training and staff development, the PSRC report of 1974 noted that there was deficiency in training programmes throughout the public services. To this end a substantial section of the report was devoted to training. Amongst others, it recommended the "reactivation of the Standing Committee on Staff Development, and the Administrative Staff College of Nigeria (ASCON) and Centre for Management Development. (CMD) brought within its coverage." Today, there are not less than forty-seven (47) universities, comprising twenty-five (25) federal Universities; fifteen (15) state universities and seven (7) private universities.

Besides, there are numerous polytechnics and colleges of technology/education to serve as training and development centres for manpower in the country. Most of these institutions have designed or modified their programmes to accommodate the training needs in the public services. According to the public service training document, all arms of the Service are strongly advised to approach the polytechnics and universities, particularly those of technology, with specific requests to design courses that are of special relevance and necessity for their professionals. In recognition of this, the federal government established the Department of Local Government Studies in

Ahmadu Bello University (ABU), Zaria; Obafemi Awolowo University (OAU), Ile-Ife; and University of Nigeria (UN), Nsukka to cater for the training of the everincreasing personnel of the local government councils in their respective catchment areas. The old Institute of Administration in Ife and Zaria were known to train various categories of public servants across the country. In the case of Ife, the institute metamorphosed into a faculty with four departments that are actively involved in manpower training and development. These departments are Public Administration; International Relations, Management and Accounting; and Local Government Studies.

2.3 MANPOWER DEVELOPMENT

It could be stated that manpower development is the preparation of studies and proposals related to vocational standards and testing. The preparation of training plans and statistics reports some special programme for job seekers. The study of training projects and proposals submitted to the ministry for high council for vocational training in coordinations with the other sections of the directorates.

2.3.1 The responsibilities of planning and the evaluation sections in manpower developments.

1. Responsible for assessing, monitoring and evaluating training programmes conducted by both levy paying establishments and the companies exempted from the levy.
2. Evaluates the request from the levy paying for the reimbursement of vocational training costs.
3. Studies that evaluates the training plans submitted by the private sector establishments for the determining exemptions from levy contributions and makes recommendations to the high council for vocational training for final approval.
4. Issues training statistics requires every two years relating to the activities conducted under the supervision of the high council.
5. Produces monthly, quarterly reports on the activities of the high council and the directorates.

MANPOWER DEVELOPMENT AND EMPLOYMENT

The purpose of development and employment of in Repitilla vi iv is in the creation of more job opportunities to absorb the increasing weak force. The event of intersectional and interregional expansion of productivity will lessen unemployment and the semi-employed as well as the imbalanced. The intersectional productivity produces job employment in the industry and the service sectors and it improves manpower protection. In order to overcome manpower and unemployment problems a series of manpower and development have been adopted covering:

- Goods condition for the expansion of job opportunity, with efficiency and productivity leading towards a dynamic and healthy business sector.
- Useful employment of productive workers through special programmes and thus improves their prosperity. Meanwhile the development of manpower and employment until the fourth year of Repitilla vi

2.2 LABOUR PRODUCTIVITY IN THE MANUFACTURING COMPANIES

According to Lach (1998) the beginning of the 1990 witnessed a remarkable increase in the growth of employment, capital investment and output in the manufacturing sector. He maintains that the productivity growth did not depart significantly from the pattern exhibited during the 1980's. He further suggests that most of the output growth in the first half of the 1990's appears to be the result of increase in the factors of production and not of increases in productivity.

It is generally accepted that the single most important fact that is contributing to the recent growth experience was the increase in the domestic demand. Those began in the early 1990 with the influx of immigrants from the Soviet Union, which expanded the need for domestic demand for manufacturing and construction goods as well as services. In this context, the slow growth of productivity is surprising for at least two reasons. Firstly, if the short run response of a firm to a sudden surge in domestic demand is to take advantage of the unused capacity, then its measured productivity should have risen, at least temporarily. Secondly, as new capital is put in place, labour productivity should be enhanced further. Moreover, tapping the new immigrants' relatively high level of human capital should also increase productivity in the manufacturing and transport sectors.

Young (1995) opines that if growth was mainly driven by the accumulation of capital and labour rather than by productivity gains then this will invariably have some implications towards the growth potentials of the manufacturing sectors.

SEA TRANSPORTATION

The development of sea transportation depends on the improvements of shipping safety, expansion of seaport facilities and the promotion of shipping safety fleets. These three activities are elicited toward supporting the smooth running of freight and passengers. The government constructed 2576 square meters of 59% of pioneer quays, rehabilitated 8309 square meters of quay and built 2475 square meters of warehouses. The government further installed supporting navigation in order to improve shipping.

3.0 MATERIALS AND METHODOLOGY.

Data was collected from some firms in each of the three major transport sub-sectors mentioned earlier by administering questionnaires that were structured in such a way as to generate the relevant information for the realisation of the study. In the land transport sub-sector data were collected from ABC Transport Company, Chisco Transport company, Ministry of Transport and the National Union of Road Transport Workers. Similarly in the rail and the maritime sector, data were collected from the Nigerian Railway Cooperation, National Inland Waterways Authority (NIWA), Nigerian Maritime Administration and Safety Agency (NIMASA), Nigerian Shippers Council (NSC), Nigerian Ports Authority (NPA), INTELS Nigerian Limited and Masek sea land who are major terminal operators in the Nigerian ports. In the aviation sectors relevant data were collected from the major airlines, Federal Airport Authority of Nigeria (FAAN), Nigerian Airspace Management Agency (NAMA). Analytical techniques adopted to measure the relationship between manpower development in these above mentioned firms and their corresponding productivity. Analytical tools of the data collected included frequency analysis, ordinary least square techniques, correlation analysis, and the application of the frontier model (FM). The data on which the study is based were collected from the above mentioned transport firms operating different modes of transport services. Copies of structurally designed questionnaires were randomly distributed to the employees of the 49 transport firms. The total number of copies of questionnaires completed was 49 out of 49, which represented 100% response rate and provide a basis of discussion in the paper.

4.0 RESULTS AND DISCUSSION.

It is indeed the managers responsibility to achieve better results from the resources available to them. This section of this paper presents the analysis of the results from the frontier model which helps to compare the results of the contribution of human resources, labour and capital to its corresponding output.

4.1 OLS ESTIMATES OF THE RELATIONSHIP BETWEEN PRODUCTIVITY, LABOUR, CAPITAL AND HUMAN RESOURCES.

TABLE 4.1 OLS MODEL RESULT FOR LABOUR CAPITAL AND HUMAN RESOURCE EFFECT.

Variable	Coefficient	Standard error	b/St.Er	P[T >t]	Mean of x
Constant	2.42471066	.24911666	9.733	.0000	
Capital	.14095804	.05762798	2.446	.0353	2.41502852
Labour	.15930853	.05801476	2.746	.0208	3.75869409
Hmr effect	.09149178	.05816388	1.573	.0095	.67053579

Source: model run from frontier analysis software.

The OLS model estimate in equation2
($PcI=8.6013+0.1395CAP+1.0844LAB+\epsilon$eqn2)

Reveals that the standard errors from capital and labour are respectively less than half the perimeter estimates. i.e.

S.E (capital) <1/2 B₀

0.65146296<1/2(8.60131754)

0.65146296<4.3006558749

Also S.E (LABOUR)<1/2 B₀

0.59107051<1/2(8.60131754)

0.59107051<4.300658749

In this case we therefore reject the null hypothesis and accept the alternative hypothesis. Since labour and capital are statistically significant to the measure of productivity, the maximum likelihood function in equation four shows that capital and labour has a very significant contribution to the output levels and the productivity levels in transport firms in Nigeria. In the light of the above, labour has the maximum likelihood with a mean of approximately 3,776 followed by capital with a mean of approximately 2.42.

1.0 CONCLUSIONS.

Productivity in transport firms do not only depend on human resource effect alone but mostly depends on labour and capital inputs. The conclusion regarding the returns to training do not depend on the choice of the capital measurements available to us this is because human resource effect may be significant at 1% level using a fixed effect estimators (De Kok, 2000) for both the gross production and the value added if capital is measured by depreciation cost. Therefore if firms increase their relative amount of training and motivation support, they are likely to benefit more from the courses those employees take with respect to the overall productivity. The impact of labour on productions is measured using the amount of the working days spent in training and not the training cost. This is because using training expenditures yields less significant result and can be seen to confirm the above assertion.

It is therefore recommended that transport firms should invest optimally in human resources developments in terms of manpower training in the organisations. Transport Managers should be able to give enough motivation to their workers which will invariably increase their efficiency and hence the productivity of the

firms. Government should make adequate provisions for the transport sector to boost the output level of each sub-sector.

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