

THE EFFECT OF TECHNOLOGICAL CHANGE ON CONSTRUCTION WORKERS AND TRADE UNIONISM IN NIGERIA: A CASE STUDY OF NIGER STATE, 2006.

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Abstract

This paper examines the interrelationship that exists among the construction worker, trade unions and the technological change in the construction industry. It pointed out that construction worker is affected directly and indirectly by the technological changes in order to conform to international ethos. It explained the influence of technology on wage levels and structure, hours of work, security, and status of worker, industrial disputes and the scope of collective bargaining. The literature review suggested that the general trend in the supply and demand for construction work follow the financing patterns of public projects, which are erratic, unpredictable, affected by stop-go policy of government. Data were collected through questionnaires and oral interview administered to ten categories of trade/workmen within the construction industry existing in the area of study, which covers wage, hours of operation, trade union and security of work. The result of the findings shows that even though there exist relationship between the variables, the impact was on the lower side. It was concluded that wage structure, hours of operation and method of operation were not commensurate with the level of construction operation. Therefore there is a need to motivate workers with the right incentives and enabling policies.

Keywords: Trade, construction, employer, supply, demand, technology.

Introduction

The term construction industry is a blanket, which covers a variety of trades, of which the most important are building, civil engineering and electrical contracting. The chief characteristics of the industry, on the demand side are variety and variability. The major consumers would be house holders, private industry and 3- tiers of government each insisting on particular requirement not only in new buildings, but also in repair work. Because of the durability of the product replacement may be put off and people sharing accommodation may postpone new demand. Private demand is sensitive to changes in interest rates.

The weather also plays a major part in determining the periods at which work can be carried out and when work is required to be carried out. Immobility of construction means that work can only be carried out on the sites, to which labour and capital must move. The characteristics of the product market and firms have had important repercussions on the labour market. The mobility of workers in search of jobs and the ease of movement between being an employer or operative have made unionism a difficult task. The problem of distinguishing employers from operatives has created innumerable problems with the upsurge of the labour only system in the post - war period. This is a method of subcontracting whereby a gang of operatives under the leadership of a piece-master agrees to perform specified tasks at agreed prices, the employer supplying tools and materials. Trade unions have opposed the system because of the difficulties of controlling such employers. (McCormick 1960).

Nigerian Construction Workers

Labour can be either skilled or unskilled. Skilled labour includes mason, carpenter, metalworker, electricians, plumber, plant operator etc. The general trend in the supply and demand for construction work follow the financing patterns of public projects which are erratic, unpredictable, affected by stop-go policy. The mode of remunerations for Nigerian workers are - daily paid, finish and go, labour only subcontracting, monthly pay (based on daily attendance, sources of deployment include local and national adverts. Ministry of Labour, the labour unions, the grapevine etc. the labour points are strategically located in towns, cities and villages

Wainwright (1968) pointed out the cost of providing and maintaining minimum facilities provided by statutory, regulations and trade union working agreement e.g. site toilets, canteens/ rest places, first aid ambulance, industrial hospitals, boots, goggles, protective clothing, transport for workpeople etc. immigration formalities and regulations for imported labour, local labour, bye laws and provisions, workmen compensation act, comprehensive insurance, regional and sub-regional labour, expert advice of federal local authorities, manpower consultants, research and development, finance and general work programme of the project. Fashonyin (1982) opined that the industrial relations of construction labour should include the environmental framework such as social expectations in the workplace, public labour policy, the practice of industrial relations in industry, economic and political considerations, the political environment, the economic setting, employment and the labour force, trade unions development, growth and problems, central labour organizations foreign trade unions etc. The organization and role of employers associations; management and labour in industry, industrial conflict, public policy on trade disputes, government labour policy (legal and institutional framework), colonial legacy, voluntary collective bargaining wage tribunal and the system of wage determination.

In planning for labour on sites the following are put into consideration: - project duration, characteristics of the project, capacity of firm, labour market situation, number of permanent labour, number of no-permanent labour, level of labour unionization, some government regulations on labour, hiring and firing trends, the labour subcontracting approach, quality of supervision expected, effective span of control, geographical location of the project, volumes of other workers held by the company on or other sites, transferability of labour, mobility of local labour, special labour requirement, economic labour ratios, current minimum statutory wages and allowances, maximum and minimum offers of company, offers by similar and competing establishment (Fisk, 1982).

Technological Change and Working Conditions of Nigerian Workers.

Technological change is not a new feature of the construction industry, but there has been a pronounced acceleration in the rate of introduction of new materials and processes in recent years. There has been an increased in the use of mechanical excavators and bulldozers, of concrete mixers and ready-mixed concrete conveyed in lorries for use in foundation work. The modern structure of today is a suspended one, mainly of concrete beams and roofs and floors, carrying a light covering of bricks, and in some instances, cement or stone. According to Stenner (1966), numerous case studies indicate that the physical environment in the workshop and sites is safer, more hygienic and more attractive. In many important respects working conditions have been improved. Moreover, the rapid development of ergonomics, the science of human engineering, which combines such engineering techniques as work-study and design engineering with the findings of physiology, anatomy, and experimental psychology, is steadily reducing physical and

nervous strain and fatigue. Workers in general tend to have greater mobility on the job, and more transferability between jobs and a better understanding of the whole process. On the other hand, a number of critics have pointed out the disadvantages of the technological change from the point of view of the individual workers. Nervous strain and mental fatigue are increased by greater noise, faster tempo, lack of control over pace of work, the necessity for constant alertness and close concentration, and the heavy responsibility imposed by awareness of the serious consequences of an error. Technological change may cause an increase in the demand for the services of the members of a union and reduce physical strain, but frequently such changes may have had adverse effects. Innovations may increase hazards of work; reduce the number of men; and alter the level or character of skills required for the job such that the proportions of existing grades of labour are altered (McCormick, 1966).

The attempts by the union to protect its members from accidents due to new materials and new methods of production may result in improvements in materials and processes. On the other hand such pressure may lead to the transfer of the work of another group of workers who are not members of the union or create unemployment in another section of the union membership. The effect of technological change is to reduce the dependence of an employer upon the union; the job is no longer synonymous with the craft. A union may therefore pursue a policy of obstruction, competition or control.

Summary of the raw data for skilled labourer in construction industry of Niger state (2006)

Trade	Wage /Day	Working Hours/Day	Output /Day	No Of Respondent	Influence of Trade Union On Wage & Time	Influence Of Technological Change On Wage &
Plumbing	1500	8	-	12	Moderate	Moderate
Painting	1500	8	75 Sq.M	12	Moderate	Moderate
Bricklayin	1500	8	100 blks	12	Moderate	Moderate
Tiling	1500	8	25 Sq.M	12	Moderate	Moderate
Electrical	1500	8	-	12	Moderate	Moderate
Mechanic	1500	8	-	12	Moderate	Moderate
Carpentar	1500	8	-	12	Moderate	Moderate
Plastering	1500	8	50 Sq.M	12	Moderate	Moderate
Furniture	1500	8	-	12	Moderate	Moderate
Asphaltin	1500	8	50 Sq.M	12	Moderate	Moderate

Source: Researcher's Survey, Niger State, 2006.

The record shows a steady rise in real earning wherever technological progressed has occurred, though this trend can not usually be isolated from other developments influencing wage rates. It should be noted however that the rise in wage levels has largely depended on the results of collective bargaining negotiations of the employer, trade unions individual negotiator and government intervention. The dramatic reduction of work hours in the past decade is a direct consequence of technological progress. Also the urge for job security underlies trade union insistence upon seniority rights, priorities in re-employment, advance notice, consultation with and /or co-determination by trade unions on technological programming.

Summary and Conclusion

Technological change may cause an increase in the demand for the services of the members of a union and reduce physical strain, but frequently such changes may have had adverse effects. Innovations may increase hazards of work; reduce the number of men; and alter the level or character of skills required for the job such that the proportions of existing grades of labour are altered. The mobility of workers in search of jobs and the ease of movement between being an employer or operative have made unionism a difficult task. The problem of distinguishing employers from operatives has created innumerable problems with the upsurge of the labour only system in the post - war period. Labour can be either skilled or unskilled. Skilled labour includes mason, carpenter, metalworker, electricians, plumber, plant operator etc. The general trend in the supply and demand for construction work follow the financing patterns of public projects which are erratic, unpredictable, affected by stop-go policy.

The mode of remunerations for Nigerian workers are - daily paid, finish and go, labour only subcontracting, monthly pay the industrial relations of construction labour should include the environmental framework such as social expectations in the workplace, public labour policy, the practice of industrial relations in industry, economic and political considerations, the political environment, the economic setting, employment and the labour force, trade unions development, growth and problems, central labour organizations foreign trade unions In planning for labour on sites the following are put into consideration: - project duration, characteristics of the project, capacity of firm, labour market situation, number of permanent labour, number of non-permanent labour, level of labour unionization, some government regulations on labour, hiring and firing trends, the labour subcontracting approach, quality of supervision expected, effective span of control, geographical location of the project, volumes of other workers held by the company on or other sites, transferability of labour, mobility of local labour, special labour requirement, economic labour ratios, current minimum statutory wages and allowances, maximum and minimum offers of company, offers by similar and competing establishment.

The rapid development of ergonomics, the science of human engineering, which combines such engineering techniques as work-study and design engineering with the findings of physiology, anatomy, and experimental psychology, is steadily reducing physical and nervous strain and fatigue. The absence of adequate quantitative data makes it difficult to estimate the effects of union's policies on community welfare. What are required are some attempts to predict the ideal supply of labour (both in size and composition) and to compare this with the actual supply of labour. Only then would it be possible to say whether or not unions' policies equate the actual rate of technical change with the optimum rate.

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