Journal of Environmental Sciences Volume 13(1) June 2009
Faculty of Environmental Sciences, University of Jos, Nigeria
ISSN 1118 – 8936

Labour Management Practices of Construction Contractors in the Kainji/New Bussa Area of Niger State, North-Central Nigeria.

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ABSTRACT

This paper enumerated the number of facilities provided for construction labour by contractors within the study area, in addition to describing the relationships between contractors' turnover of projects and the (i) number of facilities provided by contractors, (ii) frequency of dismissals of construction labour, and (iii) frequency of disputes on construction sites. Ten research questionnaires, which comprised eleven (11) simple multiple-choice questions on various aspects of labour management on construction sites, were administered to contractors/site agents selected for the study. Seven questionnaires were returned, giving a return rate of 70%. The majority of firms sampled engaged in both building and civil engineering works. The highest number of workers retained on site by contractors was sixteen. No skilled worker was paid more than N1700.00 per day. Unskilled labour earned between N500.00 and N700.00. Interviews with the site management revealed that daywork was widely practiced (workers paid daily for work performed). Other sites practiced piecework (where a gang of workers was paid a lump sum for a piece of work successfully completed). Neither the provision of site facilities nor the number of workers dismissed from construction sites was related to the project turnover of contractors. Site disputes were not as constant as suggested by correlation analysis of the research data; only about one in twelve projects (8%) involved labour disputes. Conclusions were drawn that construction clients need to do more to encourage smaller contractors provide basic site facilities for their workers, as well as suitable forum on site where grievances of workmen could be expressed. This could take the form of an informal gathering once a week where the views of everybody could be heard.

INTRODUCTION

Good project management in construction must vigorously pursue the efficient utilization of labour, material and equipment. Improvement of labour productivity should be a major and continual concern of those who are responsible for cost control of constructed facilities. This is the domain of human resources management in construction. The quantity of labour hours required to perform a task in construction is more susceptible to the influence of management than are materials or capital. It is important to note that labour productivity is a measure of the overall effectiveness of an operating system in utilizing labour, equipment and capital to convert labour efforts into useful output, and is not a measure of the capabilities of labour alone. For example, by investing in a piece of new equipment to perform certain tasks in construction, output may be increased for the same number of labour hours, thus resulting in higher labour productivity.

The management of human resources is a complex activity, and the peculiarities of the construction site environment make it an even more daunting task. The productivity of labour depends to an impressive extent on the efficiency of its management, and such productivity is reflected in the overall productivity of the contractor. The problem this study is concerned with is the establishment of the human resources management characteristics of contractors in the study area and what relation these characteristics bear to the turnover of the contractor in terms of completed projects.

The aim of this paper is to examine the scope of human resources management as practiced by contractors working in Kainji/New Bussa areas of Niger State. The objectives of the project include the following: -

(i) Enumeration of the number of facilities provided for construction labour by contractors within the study area.

(ii) Description of the relationships existing between contractors' turnover of projects and the following management characteristics of construction projects:

(a) Number of facilities provided by contractors for the benefit of their construction workforce.

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(b) Frequency of dismissals of construction labour.
(c) Frequency of disputes on construction sites.

The scope of this project encompasses an examination of the human resources management characteristics of the operation of construction contractors in Kainji/New Bussa area of Niger State. Unlike other local area council headquarters in Niger State, some construction companies are domiciled in Kainji. Such companies have offices in the town; a few maintain plant yards as well. Their clientele include the New Bussa local area council, the Power Holding Company of Nigeria that operates the Kainji hydroelectric power station, the National Institute for Freshwater Fisheries Research and the Kainji National Park. The research covers data collected in November and December 2008 only. The research is also subject to certain limitations and constraints, arising from the fact that the information required for analysis could not be accessed from official government sources; direct interview of contractors had to be carried out to obtain proxy data. Such proxy data might be subjectively biased; some respondents might be sceptical to reveal certain information that would have been vital to the success of this research work or study.

LITERATURE REVIEW

The management of construction projects requires knowledge of modern management as well as an understanding of the design and construction process, (Kerzner, 1984). Construction projects have a specific set of objectives and constraints such as a required time frame for completion. Generally, project management is distinguished from the general management of corporations by the mission-oriented nature of a project. A project organization will generally be terminated when the mission is accomplished (O'Connor and Vickory, 1985). The Project Management Institute focuses on nine distinct areas requiring project manager knowledge and attention, one of which is titled 'project human resource management'. According to the Project Management Institute, the discipline of project management can be defined as the art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participation satisfaction (Project Management Institute, 2004).

Observing the trends in construction technology, McCullough (1977) opined that construction techniques and materials are essentially unchanged since the introduction of mechanization, despite all technological and mechanical advances. In contrast to this view, one may also point to the continual change and improvements occurring in traditional materials such as bricks. Motorized wheelbarrows and mortar mixers, sophisticated scaffolding systems, and forklift trucks now assist the bricklayer. New epoxy mortars give stronger adhesion between bricks. Mortar additives and cold-weather protection eliminate winter shutdowns (Rosefielde and Daniel, 1979). Add to this list of existing innovations the possibility of robotic bricklaying; automated prototypes for masonry construction already exist. Technical change is certainly occurring in construction, although it may occur at a slower rate than in other sectors of the economy (Jackson, 1986).

Productivity in construction is often broadly defined as output per labour hour. However, it is important to note that labour productivity is a measure of the overall effectiveness of an operating system in utilizing labour, equipment and capital to convert labour efforts into useful output, and is not a measure of the capabilities of labour alone. Construction output may be expressed in terms of functional units or constant monetary units (Cordell, 1986). Contractors and owners are often concerned with the labour activity at job sites. For this purpose, it is convenient to express labour productivity as functional units per labour hour for each type of construction task. In order to develop industry-wide standards of performance, there must be a general agreement on the measures to be used for compiling data. Then, the job site productivity data collected by various contractors and owners can be correlated and analyzed to develop certain measures for each of the major segment of the construction industry. Thus, a contractor or owner can compare its performance with that of the industry average.

Fagbenle, Adeyemi and Adesanya (2004) asserted that the Nigerian construction industry is labour intensive and the highest employer of the nation's work force. Although the industry accounts for over 50% of the country's gross capital formation, unfortunately most empirical studies have revealed that the output of the industry is quite low when compared with many developed countries.

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Workers' productivity on construction sites has been shown to be very poor and this has been the trend for a long time (Olubodun, 1986 and Ayandele, 1996). In the same vein, Ogunlana and Olomolaiye (1992) noted that on the average, workers spend approximately half of their working day, after allowing for lunch breaks and absences, on productive work; Nwachukwu (1988) also observed that a large number of project managers and supervisors do not know how to identify operatives' goals and link them with organizational reward in order to motivate operatives. Adeyemi (2000) observed the presence of the following demotivators in the Nigerian construction industry:

- Inapropriate tools and equipment brekdown.
- Materials shortage, delay and wastage.
- Incessant rework and estimating errors.
- Absence of training and safety programmes.
- Job insecurity/employee turn over.
- Non –involvement of construction crews in production objectives.
- Incompetent foremen.
- Predominance of Maslow's theory X site managers.

Labour and management arrangements in the construction industry include both unionized and non-unionized operations which compete for future dominance. Dramatic shifts in unionization can occur. For example, the fraction of trade union members in the construction industry declined from 42% in 1992 to 26% in 2000 in Australia, a 40% decline in 8 years. The system which binds contractors and unions to a collective bargaining agreement is referred to as the "union shop". This works through various market institutions such as jurisdiction rules, apprenticeship programs, and the referral system.

These agreements obligate a contractor to observe the work jurisdictions of various unions and to hire employees through a union operated referral system commonly known as the hiring hall. Contractors and craft unions must negotiate not only wage rates and working conditions, but also hiring and apprentice training practices. The purpose of trade jurisdiction is to encourage considerable investment in apprentice training on the part of the union so that the contractor will be protected by having only qualified workers perform the job even though such workers are not permanently attached to the contractor and thus may have no sense of security or loyalty(Bourdon and Levitt, 1980).

RESEARCH METHODOLOGY

The population of interest to this research work comprised the entire population of construction contractors in Kainji/New Bussa areas of Niger state. This number is presently unknown, owing to the fragmented nature of the construction market in Nigeria. Contractors register with individual clients, and greater emphasis is placed by clients on registration with them than with the government's central registry. Purposive selection of respondents was employed, which was based on the level of construction activity observed during initial pilot surveys. The respondent on each site was also purposively chosen; in each case it was either the contractor or the site agent of the contractor.

The main instrument employed by this study was the questionnaire. This was titled 'Questionnaire on Human Resources Management on Construction Sites in Kainji/New Bussa, Niger State'. The questionnaires contained eleven (11) simple multiple-choice questions covering aspects of labour management on construction sites that were relevant to the resolution of the research problem. One questionnaire each was then administered to the contractor/site agent on the sites that were selected for the study. Only seven questionnaires were however returned, giving a return rate of 70%. For confidentiality purposes, the responding firms were labeled A, B, C, D, E, F and G. Personal unstructured interviews were conducted randomly in order to obtain opinions, facts and raw data that were not possible through the questionnaire method about the subject matter of the research.

Pearson product-moment correlation coefficient was used to assess the level of association or strength of relationship between two variables when the raw data was available in absolute values (Naoum, 1999). Its value ranges

from -1 to + 1.

The tests were taken at 5% level of significance. The strength of relationship increases as r approaches 1, in either direction (positive or negative)

RESULTS AND FINDINGS

Demographic Data on Respondents

Majority of firms sampled engaged in both building and civil engineering works (Fig 1). The highest number of workers retained on site by contractors was sixteen (Fig 2). No

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skilled worker was paid more than N1700.00 per day (Fig 3). Unskilled labour earned between N500.00 and N700.00. There were minor variations in both number and remuneration of labour across the sample.

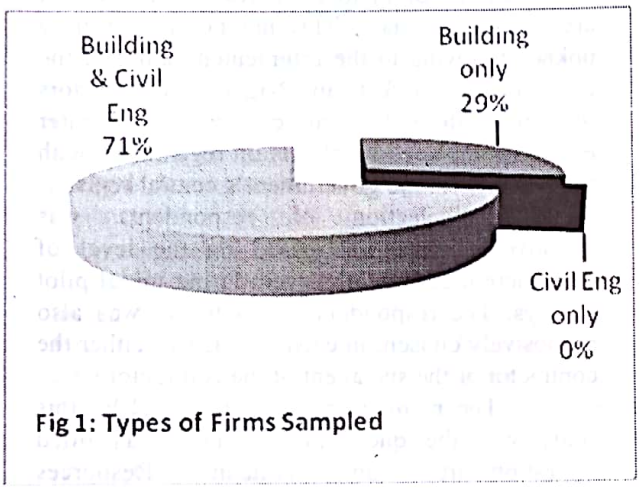

Fig 1: Types of Firms Sampled

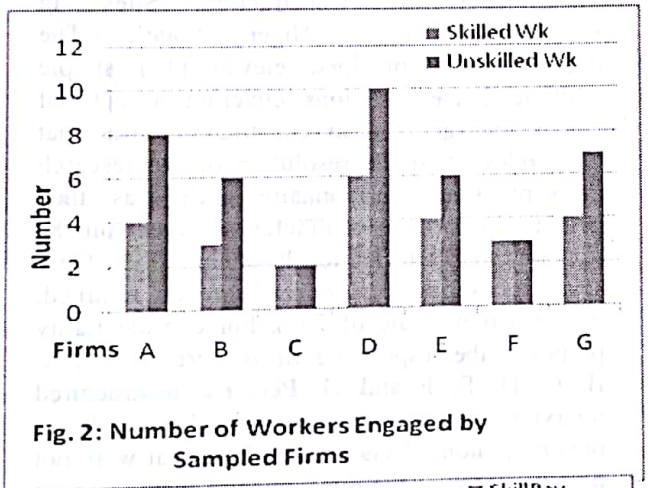

Fig. 2: Number of Workers Engaged by Sampled Firms

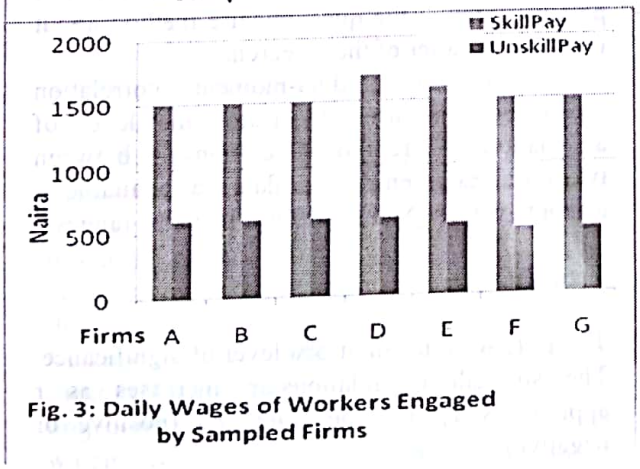

Fig. 3: Daily Wages of Workers Engaged by Sampled Firms

Facilities Provided For Site Workers

None of the firms sampled in this paper provided more than two types of facilities for site workers. All firms had first aid boxes on site; firm C also provided overtime payments, while firm E ferried workers to and from site every working day. The picture painted by the data in Table 1 above is probably representative of most small sites across Nigeria. Workers regard their stay in such employment as strictly temporary, and do not bother to agitate for facilities that are not provided. In most cases, employers are unable to provide these facilities either because the prices they quoted to win the jobs have too slim a profit margin to allow expenditure on such facilities, or because the facilities were not included in the contracts they entered into (see Table 1 below for summary)

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Table 1: Facilities provided for workers by contractors.

Firms	First Aid	Toilet	Transport	Housing	Overtime	Holiday	Total No of Facilities
A	1	0	0	0	0	0	1
B	1	0	0	0	0	0	1
C	1	0	0	0	1	0	2
D	1	0	0	0	0	0	1
E	1	0	1	0	0	0	2
F	1	0	0	0	0	0	1
G	1	0	0	0	0	0	1

Details of the Projects Executed By Contractors

Over the previous five years preceding the study, the data in Table 2 showed that the contractors sampled had been busy; no fewer than twelve jobs were handled by each contractor. At the same time there had been few dismissals of workers and even fewer disputes. This situation requires some elaboration. Interviews with the site management revealed that the sites were managed very informally; rarely did sanctions have to be imposed on workers. On a few of the sites, daywork was practiced (workers being paid daily for work performed). Other sites practiced piecework (where a gang of workers was paid a lump sum for a piece of work successfully completed). The workers were in the strictest sense of the word not really employees of the firms; they were more like subcontractors.

Table 2: Details of the projects executed by contractors in the study area.

Firms	Current Projects being handled by firms	Past Projects handled by firms	Number of workers dismissed by management	Disputes between management & workers
A	1	16	1	1
B	2	21	1	1
C	1	18	1	1
D	4	32	2	2
E	2	16	1	1
F	3	12	1	1
G	1	14	2	1

Correlation Analysis

The results of the simple Pearson product-moment correlation analysis carried out in order to test for association between the research variables were reported below.

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Table 3: Results of correlation analysis between the research variables.

Experiment No	Variables		Pearson Correlation (r)	r^2 (%)	Significance value	Inference
	X_1	X_2				
1	Total number of facilities provided on site	Projects' turnover of contractors	-0.148	2.2%	0.750	Statistically non-significant correlation
2	Total number of dismissals	Projects' turnover of contractors	0.471	22.2%	0.290	Statistically non-significant correlation
3	Total number of disputes	Projects' turnover of contractors	0.903	81.5%	0.005	Statistically significant correlation

A negative correlation existed between the number of projects secured by contractors and the number of facilities provided. This trend was not supported statistically; a significant relationship did not exist, given the low value of r obtained (0.148). A similar situation existed between the number of projects secured by contractors and the number of dismissals of construction labour from the construction site. A positive correlation was observed between the number of projects secured by contractors and the number of disputes with construction labour. The coefficient of determination (r^2) was also quite high (81.5%). However, visual inspection of the data does not support the level of association suggested; it appears much more plausible that one or two projects had special circumstances that led to disputes. The situation does not appear to be as generalized as the correlation analysis results suggests.

CONCLUSIONS AND RECOMMENDATIONS

This research project has examined how contractors manage labour resources on construction sites in Kainji/New Bussa areas of Niger State. The research also examined whether associations existed between the numbers of (i) workers dismissed, (ii) disputes between labour and management and (iii) number of site facilities provided and the contractors' turnover of projects. The conclusions reached by the research project after due analysis of data are as follows.

Neither the provision of site facilities nor the number of workers dismissed from construction sites was related to the project turnover of contractors. The success of the contractor at bidding and obtaining jobs does not influence the facilities provided for workers on site. It might be hypothesized that even where provision for compliance with applicable labour laws is provided for in the contract, unless supervision is strict, contractors simply ignore such provision. Dismissals of construction labour tended to increase as the number of projects handled by the contractors increased; this might warrant a more extensive study, using a much larger sample of contractors than was employed in this study. Contractors' turnover tended to move in tandem with increase in the number of disputes with construction labour. This trend suggests that more disputes occurred when the contractor had more jobs. This trend would ordinarily be worrisome because it shows that disputes tend to be a constant factor in the construction industry. However, it was discovered from inspection of the data that disputes were not as constant as the correlation analysis suggested; only about one in twelve projects (8%) involved labour disputes. The following recommendations were considered necessary in the light of the findings of this study:

1) Construction clients need to do more to encourage smaller contractors to provide basic site facilities for their workers. This could be in form of specific inclusion of such facilities (such as toilets and canteens) in construction contracts, the provision of which should then be a pre-condition

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for payment of the contractor.

2) Contractors should provide suitable forum on site where the grievances of workmen could be expressed and addressed without attendant strikes and lockouts. This could take the form of an informal gathering once a week where the views of everybody could be heard.

ACKNOWLEDGEMENTS

The authors are indebted to Prof T. C. Mogbo, for initial comments on the paper.

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