

IMPACT OF MOTIVATION ON WORKERS' PRODUCTIVITY IN THE NIGERIAN CONSTRUCTION INDUSTRY

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This is a research on the relationship between motivation and performance of workers in the Nigerian construction industry. It identifies a number of motivational schemes that enhance the performance of workers. Findings from the research on productivity of construction workers are reported. Two sets of questionnaires were employed in the study. One set was administered on management staff and the other on operatives. The study reveals that salaries paid to operatives in the study were below the stipulations of the Nigerian National Joint Industry Council. It further shows that operatives are rarely promoted, and operatives prefer financial incentives to non-financial incentives. The study recommends that increases in salary via promotion, overtime allowances and holidays with pay should be used as motivators (financial incentives) for increase in performance of construction workers (operatives).

Keywords: construction, incentives, motivation, operatives, productivity.

INTRODUCTION

The output of the construction industry constitutes one-half of the gross capital, and three to eight percent of the Gross Domestic Product (GDP) in most countries (Arditi and Morkhtar 2000). Mee-Edoiye and Andawei (2000) declared that the employees in the civil and building construction industry of a country are the largest. The population of the workers compared to the whole workforce of a nation is significant. Anything done to the employees could either make or mar the quality of their work, the speed of progress, the economy of the country and the social well-being of the workers. It follows from the foregoing therefore that workers should be well motivated for high performance and for the production of good quality products. However, despite this significant role the industry plays in the Nigerian national economy, the performance has not been impressive. Eldin and Egger (1990) noted that construction productivity has been declining steadily in spite of the rising cost and large labour intensive nature of construction projects around the world. The decline in the workers' performance causes the failure of the building industry to deliver projects timely with the obvious consequences of cost overrun. Labour productivity according to Akindele (2003) is defined as labour output per day (man-day). This is often reduced by delayed, unclear or inadequate instructions, provision of poor tools and equipment, unbalanced work gangs, use of working method, lack of incentives, and failure to delegate authority from senior to lower level supervisors (Heap 1987).

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The productivity of individuals, which in turn affects the productivity of a company, is a very important parameter to watch as it measures a company's competitive power. It is an indicator of a firm's profit margin, a measure of the firm's survival in business, a yardstick for remuneration of employees, and a means of recognition of hard work.

LITERATURE REVIEW

Productivity

Productivity measures how efficiently resources are employed, It is defined as the ratio of a specific measure of output to a specific measure of input per unit of labour and is measured as total output divided by the members of units of labour employed to produce that output

Williams (1997) defines human capital (labour) as the accumulated knowledge, skill and experience of the labour force. As individual workers acquire more human capital, their productivity and hence their income grows. Labour comprises the broad category of human effort, both physical and mental directed towards productivity.

Motivation

Motivation is an art targeted to getting people work willingly, and an art of inducing one to behave in a particular manner to achieve a task. Mee-Edoie and Andawei (2002) viewed motivation as a human engineering approach being triggered by the individual needs. Flippo (1982) defined motivation as a psychological process initiated by the emergence of needs involving a goal directed action and behaviour aimed at satisfying a particular desire. It is the inducement given to workers for higher output. Motivated behaviour has three basic characteristics:

1. It is sustained – it is maintained for a long time until satisfied.
2. It is goal-directed – it seeks to achieve an objective.
3. It results from a felt need – an urge directed towards a need.

Several authors including Robert and GeneNeuport (1995), Williams (1997) and Cole (1999) have propounded theories to help to understand the human being and how to handle him to get goals achieved. The theories propounded include:

1. The Maslow's Theory of Hierarchy of Needs:

Abraham Maslow developed a needs-based theory of motivation. People are extraordinary complex creatures with many motives for behaviours on and off the job. Maslow (1954) identified and analyzed five basic needs, which he believed underlay all human behaviours, these needs relate to physiology (the needs for food water, air and sex), security (safety, the absence of illness), society or affiliation (friendship, interaction, love), esteem (respect and recognition), and self actualization (the ability to reach one's potentials). These are perceptions for high performance and productivity of individuals.

Before Maslow, most managers assumed that money primarily motivated people. With Maslow's work, managers can evaluate their own actions, their companies conduct and their individual philosophies about people. Maslow's needs theory presented a workable motivation framework for managers.

2. McGregor's Hygiene Theories X and Y

An unmet need can frustrate an employee and make him unproductive. Douglas McGregor published the human side of enterprise in 1960. In it, he explained that managers operate from one or two basic assumptions about human behaviour: Theory X and Theory Y. The first theory, the view traditionally held about labour, portrayed workers in industry as being lazy and needing to be coerced, controlled and directed. The second described people as McGregor thought them to be; responsible, willing to learn and given the proper incentives inherently motivated to exercise ingenuity and creativity. McGregor holds the view that the traditional way of treating people – regarding them as unthinking, uncaring robots – must change. Indeed, McGregor stressed that only by changing these assumptions could managers tap workers' or labourers' vast talents. He emphasized that what matters was how people were treated and valued in their work settings. He went further by advising managers to give employees a chance to contribute, take control and responsibility. Table 1 shows the assumptions of Theories X and Y.

With these theories, managers could discover what employees want from workplace, how to enlist their cooperation and commitment and how to unleash their talents, energy and creativity for their ultimate goal, which in most cases is high level of productivity. Familiarity with theories of motivation allows a manager an educated viewpoint from which to consider how to develop workers, capture commitment and develop a positive work environment.

Table 1: Assumption about workers according to theory X and theory Y

Theory X	Theory Y
People basically dislike work and avoid it whenever possible Because most people dislike work, they have to be closely supervised and threatened with punishment to reach objectives.	Most people find work as natural as play or rest and develop an attitude towards work based on their experience with it. People do not need to be threatened with punishment; they will work voluntarily toward organizational objectives to which they are committed.
Most people have little creativity. They are not capable of solving problems. Rather, they must be directed.	Most people possess a high degree of imagination, ingenuity and creativity with which to solve organizational problems.
Most people have limited intellectual potential. Contribution above basic job performance should not be expected.	Although people have intellectual potential, modern industrial life utilizes only part of it.

Source: Plunkett and Attener (1994)

The core of theories X and Y is that a management philosophy influences the type of work climate the manager endeavours to create and ultimately, how the manager treats people.

Frederick Herzberg's two-factor theory developed in (1975) also called hygiene-motivator.

One set of the theory defines factors that lead to job satisfaction; these factors are called hygiene factors.

- Salary: To prevent job dissatisfaction, a manger should provide adequate wages, salaries, and fringe benefits.
- Job security: Company grievance procedures and seniority privileges contribute to high-quality hygiene.

- Working conditions: Managers ensure adequate heat, light, ventilation, and hours of work to prevent dissatisfaction.
- Status: Managers who are mindful of the importance of hygiene factors provide privileges, job titles, and other symbols of rank and position.
- Company policies: To prevent job dissatisfaction, managers should provide policies as guidelines for behaviour and administer the policies fairly.
- Quality of technical supervision: When employees are not able to receive answers to job-related questions, they become frustrated. Providing high-quality technical supervision for employees prevents frustration.
- Quality of interpersonal relations among peers, supervisors, and subordinates: In an organization with high-quality hygiene factors, the workplace provides social opportunities as well as the chance to enjoy comfortable work-related relationships.

The other set of factor the theory defines is that which produces job satisfaction and motivation called motivators.

- Achievement: The opportunity to accomplish something or contribute something of value can serve as a source of job satisfaction.
- Recognition: Wise managers let employees know that their efforts have been worthwhile and that management notes and appreciates them.
- Responsibility: The potential for acquiring new duties and responsibilities, through either job expansion or delegation, can be a powerful motivator for some workers.
- Advancement: The opportunity to improve one's position because of job performance gives employees a clear reason for high performance.
- The work itself: When a task offers the opportunity for self-expression, personal satisfaction, and meaningful challenge, employees are likely to undertake the task with enthusiasm.
- Possibility of growth: The opportunity to increase knowledge and personal development is likely to lead to job satisfaction.

TYPES OF MOTIVATION

Motivation can be classified into two categories. These are non-financial and financial incentives schemes. Non-financial motivation is intangible; it includes advancement, the work itself, responsibility, recognition, relations with co-workers, company policy and working institutions.

Financial Incentive Scheme

There are two areas into which financial incentives scheme fall; those of operatives and those of managers. According to Cole (1997), incentive scheme for managers include, extra payments or increase in salaries, fringe benefits covering such items as, car, sickness benefits, free education for managers' children, and free holidays. Others are free lunches, free travel abroad with wife and family, access to newspapers and journals, free interest loan and free medical scheme (Pigors 1981).

Financial Incentives Schemes to Operatives

Cole (1997) gave a list of financial incentives to operatives, which include good holiday pay, extra pay for shift work and uncomfortable, dirty and unhealthy conditions, profit sharing, long service allowances, overtime availability when operatives require it, pension fund contribution by the company, death benefits and dependants, employee's liability insurance and medical facility to operative's family.

METHODOLOGY

The study was carried out in Nigeria, and random sampling technique was used for selecting firms for study. Some towns where construction activities are high were selected; one from each of the three parts of the country (the north, east and west). Abuja, Port-Harcourt and Lagos were chosen. Since construction processes are the same throughout the country, these towns were used as representative samples of the study area since all towns cannot be reached for the study due to the huge sum of money that would be required as well as the time needed for such an endeavour.

The target population for the study was the management staff (architects, builders, quantity surveyors and engineers) and contractors. In order to obtain the sample size of the study, the Corporate Affairs Commission was visited to obtain the number of registered companies with them and particularly those that have their head offices in the selected towns. A total of 96 companies were listed (registered), the formula below given by Siegel and Castellan (1988) was used to obtain the sample size.

$$n = \frac{Npa}{(N-1)\frac{B^2}{4} + pq}$$

Where

- n = Sample size
- B = Confidence level of error of the estimate = 0.05
- p = Population proportion with the required characteristics taken as 0.5
- q = Population proportion without the required characteristics i.e. (1-P).
- N = Sample population

was applied to obtain the sample size. It gave a sample size of 16 companies. Data was collected from 74 questionnaires. The operatives were asked the kind of motivation the management gives to them and they prefer to indicate their productivity as high. The management staff was also asked the kind of motivation they give and that which operatives prefer for high productivity. The mean score of the sum of central tendency (statistical tool) was used for the analysis of data since parameters analyzed is small.

Presentation and Analysis of Data from questionnaire type 1 (for management)

Majority of the respondents, 33.33% showed that the salary paid is slightly below the Nigerian National Joint Industrial Council (NJIC) agreement. For 27.27% construction firms pay exactly NJIC agreement, and 21.21% assert that salaries paid

construction workers are far below NJIC agreement, while 18.18% indicated that salaries paid construction workers is a little above NJIC.

From the analysis, it could be seen that most of the organizations pay salary, which is below NJIC agreement, and this may affect the performance of workers negatively (Table 2)

Table 2: Salary structure used compared with current NJIC agreement

S/N	Salary Structure	No. of Respondents	Percentage of Respondents
1	Far above NJIC agreement	0	0%
2	A little above NJIC agreement	6	18.18%
3	Exactly NJIC agreement	9	27.27%
4	Slightly below NJIC agreement	11	33.33%
5	Far below NJIC agreement	7	21.21%
		33	100%

Source: Fieldwork, 2005

Twenty nine percent (29%) of the organizations carry out promotion on company's policy because of performance of workers. The study found out that promotion is not done on a regular basis, for example after every 3 years but based on the performance of workers (Table 3).

Of all the motivating factors available in the construction industry, the most used for higher performance is overtime with 9.4% followed by health care services with 9.0% and thirdly by provision of transportation facility to and from work with 8.9%. The least used motivating factor is profit sharing with 3.3% followed by telephone services. The reason for overtime being used mostly as motivation for higher performance is that to the operatives, they receive money in return and while to the organization work done is increased. While health care services, which are free put confidence into workers to work hard, and when sick they will be taken adequate care of without spending money of their own (Table 4).

Table 3: Promotional policy of the organization

S/N	Basis of Promotion	Rating Order					Total frequency	Mean score	% means score
		1	2	3	4	5			
1	Promotion is Regular	8	8	4	9	3	105	0.27	27%
2	Promotion is Rarely done	6	10	1	8	7	96	0.25	25%
3	Promotion is Based on influence	1	2	13	7	9	75	0.19	19%
4	Promotion is Based on Performance	4	15	10	2	1	115	0.29	29%
							391	1.00	100%

Source: Fieldwork, 2005

Table 4: The most used motivating factor in the construction industry.

S/N	Factors	Score	Mean score	% Mean score	Position
1	Increase in salary	117	0.078	7.80	5
2	Achievement	78	0.052	5.20	13
3	The work itself	95	0.064	6.4	10
4	Promotion	119	0.80	8.0	4
5	Responsibility	80	0.054	5.4	11
6	Recognition	113	0.076	7.6	6
7	Relation with co-worker (union)	100	0.067	6.7	8
8	Company Policy	102	0.068	6.8	7
9	Working condition	100	0.067	6.7	8
10	Holiday abroad with pay	79	0.053	5.3	11
11	Health Care Services	135	0.090	9.0	2
12	Provision of transportation facility, e.g. Official car	134	0.089	8.9	3
13	Telephone Services	51	0.034	3.4	14
14	Sharing Profit	49	0.033	3.3	15
15	Overtime	141	0.094	9.4%	1

Source: Fieldwork, 2005

As far as the operatives are concerned, the motivation they preferred most is holiday abroad with pay. The mean ranking is 7.79%. The likely reason that could be adduced for this is that, workers will be exposed to more experience in their field of work, to the latest available tools and equipment, better construction techniques/methods, which makes them become experts in their field and hence production will be faster and with higher quality. This will have a resultant effect on their cadre, as they will receive promotion. Increase in salary is the second most preferred motivating factor, which comes naturally. They will be able to send their children to good schools, feed well and have a sense of belonging in the society. The least preferred motivating factor is telephone services, followed by responsibility. This is because it is not a financial gain (Table 5).

Presentation and Analysis of Data from Questionnaire Type 11 (For Operatives)

Most (51.22%) operatives indicated that salaries paid them is a little below NJIC agreement. This makes workers not to work well as they feel cheated and thereby it affects productivity negatively (Table 6). The two groups agree that salaries paid workers are slightly below NJIC agreement. Most of the operatives (26.4%) have a view that promotion is given to those who have people to influence it for them. While 26.2% hold the opinion that promotion is based on performance, and another 26.2% opine that promotion is rarely done (Table 7).

An increase in salary of workers makes them committed to hard work for high productivity. It is the first among all the factors ranked. Following this is promotion, which if regular keeps the workers focused on their job, due to the evaluation report that shall be made at the end of year and later compiled for use as promotion guide. Next to this is overtime, which increases the take home pay of the workers at the end of the month, and makes them to work harder.

Table 5: Motivation as preferred by worker, the perception of management.

S/N	Factors	Frequency	Mean score	% Mean score	Position
1	Increase in salary	150	0.0774	7.74	2
2	Achievement	123	0.0634	6.34	10
3	The work itself	108	0.0557	5.57	13
4	Promotion	149	0.0768	7.68	3
5	Responsibility	101	0.0521	5.21	14
6	Recognition	136	0.0701	7.0	7
7	Relation with co-worker (union)	116	0.0598	5.98	12
8	Company Policy	119	0.0614	6.14	11
9	Working condition	132	0.0681	6.81	8
10	Holiday abroad with pay	151	0.0779	7.79	1
11	Health Care Services	147	0.0760	7.60	4
12	Provision of transportation facility, e.g. Official car	144	0.0743	7.43	6
13	Telephone Services	90	0.0464	4.64	15
14	Sharing Profit	127	0.0645	6.45	9
15	Overtime	146	0.0754	7.54	5

Source: Fieldwork, 2005

Table 6: On salary structure being paid compared to NJIC agreement

S/No	Salary Structure	No. of respondent	% of respondent
1.	Far above NJIC agreement	0	0%
2	A little above NJIC	0	0
3	Exactly NJIC agreement	12	29.27
4	Slightly below NJIC	21	51.22
5	Far below NJIC	8	19.51%

Source: Fieldwork, 2005

Table 7: Promotional policy of the organization

S/N	Factors	Score	mean score	% mean score
1	Promotion is very regular	102	0.2120	21.2%
2	Promotion is rarely done	126	0.2620	26.20%
3	Promotion is based on influence	127	0.2640	26.40%
4	Promotion is based on performance	126	0.2620	26.20%

Source: Fieldwork, 2005

The least factors that could induce the workers to working hard are telephone services, responsibility and the work itself. The reason could be that they do not have financial reward to the operatives directly (Table 8).

A comparison of the questionnaires shows that both groups agree that the salary paid to labourers is slightly lower than the NJIC recommendation. This is likely to affect the labourers' productivity and may be one of the reasons that delay in delivery of projects is experienced on majority of projects. There is a difference of opinion on the policy of organizations on the promotion of operatives. While the management claims that it is done very regularly and fair, the operatives believe it is rarely done and if done at all it is for those who have godfathers. The most motivating factors according to the management are overtime pay, health care services and provision of transportation in this order, whereas the operatives opine that these are increase in salary, promotion and overtime pay.

Table 8: Motivators preferred for high productivity by operatives

S/N	Factors	Score	Mean score	% Mean score	Position
1	Increase in salary	203	0.0862	8.62%	1
2	Achievement	124	0.0526	5.26	12
3	The work itself	117	0.0497	4.97	13
4	Promotion	197	0.0836	8.3	2
5	Responsibility	112	0.0475	4.75	14
6	Recognition	188	0.0798	7.98	5
7	Relation with co-worker (union)	154	0.0654	6.54	9
8	Company Policy	145	0.0615	6.15	10
9	Working condition	156	0.0662	6.62	8
10	Holiday abroad with pay	191	0.0811	8.11	4
11	Health Care Services	183	0.0777	7.77	7
12	Provision of transportation facility, e.g. Official car	136	0.0577	5.77	11
13	Telephone Services	73	0.0310	3.10	15
14	Sharing Profit	185	0.785	7.85	6
15	Overtime	192	0.0815	8.15	3

Source: Fieldwork, 2005

RECOMMENDATIONS

The following recommendations are hereby made based on the analysis of data from the field and conclusion reached.

1. Companies are requested to adjust their salary structure to reflect the NJIC recommendation; this will enhance the performance of workers.
2. Management should be concerned with the welfare of the workers and their families. This will give the workers a sense of belonging and being appreciated will make them to be focused and completely committed to their work.
3. Increase in salary; promotion, overtime and holiday with pay should be used as motivators for increase in performance of construction workers.
4. Promotion should be done regularly and should be based on performance of workers.

CONCLUSION

The paper discusses the impact of motivation on the productivity of workers in the Nigerian construction industry. Since motivation is an inducement for higher output it should be accorded a right of place by employers of labour for the construction industry to achieve higher productivity, which will lead to greater contribution to the nation's Gross Domestic Output.

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