

Effect of Motivational Factors on Workers Productivity in Construction Industry Injos, Plateau State – Nigeria

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ABSTRACT

This research was aimed at investigating the effect of motivational factors on worker's productivity in construction industry in Jos, Plateau State – Nigeria, which was achieved through determining the non-financial incentives schemes employed by construction firms, identifying the intrinsic motivation among workers, determining the impact of motivational factors, and identifying factors that affect motivation and productivity at work. The research reviewed literature extensively to obtain variables relevant to the research work. A quantitative research design was used for the research on the target population of 150 professionals comprising of Architects, Builders, Civil Engineers, Quantity Surveyors, among other professionals. Sample size of the study was 165 respondents using 40% of the target population. The analyses of the research were based on the retrieved 150 questionnaires using excel as a tool for the statistical analyses; the research objectives were analysed based on mean scores and ranking method. The research concluded that: The non-financial incentives scheme used in construction industry in the study area are Insurance against accidents on site, Encouragement to make suggestions about work, Provision of working tools and equipment, Safety plans including the provision of first aid, and, Provision of sanitary facilities e.g. toilets, bath, dressing room, etc. The intrinsic motivation among workers in the construction industry are Recognition and development, Job characteristics, having responsibilities to perform at the health facility give sense of control over others, enjoying profession, and Leadership. Motivational factors have impact in construction industry in the study area. The factors that affect motivation and productivity at work in construction industry in the study area are Strike due to unpaid work, Poor weather condition,

Unrealistic deadline for project set by client, Poor buildability design, Late issuance of construction drawings by consultant. The research recommended that: Non-financial incentives scheme should always be used in construction industry as it play a role in the life of construction workers, it encourages the workers to have more enthusiasm for their work. Intrinsic motivation among workers should be capitalize as it varies from worker to worker in construction industry. So therefore, basic motivation should be prioritise among workers to have a better execution of all construction activities, this will make them to be on top of any situation in construction activity. Managers should always take their time and study the appropriate motivational factors that sue their employees so as to have the right motivational factors that can always have impact on construction industry and the economy of the nation. All the stakeholders should consider those factors that motivate workers to boost their productivity at work to be paramount importance so as to keep to project's delivery time, quality and within cost.

KEYWORDS: Motivation, productivity, construction industry, labour

I. INTRODUCTION

Construction industry has complexity in its nature because it contains a large number of parties such as clients, contractors, consultants, stakeholders, shareholders, regulators and others. The construction industry occupies a sensitive position as it is perceived to play an essential role for continuous growth of both the developed and developing nations (Ofori, 2014). Construction industry makes significant contributions to the socio-economic development process of a country. Its importance emanates largely from the direct and indirect impact it has on all economic activities. It contributes to the

national output and stimulates the growth of other sectors through a complex system of linkages. It is noted that about one-tenth of the global economy is dedicated to constructing and operating homes and offices (CIDB, 2014).

The role of the sector is very important because of its output and due to the achievement of socio-economic objectives such as shelter, infrastructure and employment opportunities (Abadiet al., 2017). The vital role played by the construction industry cannot be over emphasized as it is vivid that the activities of the industry impact almost every aspect of the economy which is also responsible for about 16.0% of Gross Domestic Product (GDP) and employs approximately 25.0% of workforce in Nigeria (Wahab, 2016).

The construction industry employs large unskilled labor. Throughout the developing world, the majority of employees in the industry are unskilled. Women are also found to be beneficiaries of the employment in the industry. However, the employment in the industry is mainly temporary in nature and once the job is over, the workers are obliged to find other jobs or return to their place of origin.(Fisher, 2012).

For construction industry to continue to be a significant sector, its workforce must always be motivated which in turn boost its productivity (Uwakweh, 2015), which they identified motivation to be a useful tool for enhancing productivity. Construction industry is a significant sector in the economic development of any nation; it contributes immensely to gross domestic product (GDP) and employs substantial percentage of her workforce (Yisa, 2015). It is therefore important for her workforce to be motivated. In construction industry, productivity is often measured by workers' efficiency (Uwakweh, 2015).Mudor (2014) contend that every organisation desires to be successful as much as current environment is very competitive. Organizations irrespective of size and market strive to retain the best employees, acknowledging their important role and influence on organisational effectiveness. In order to overcome challenges, organisations should create a strong and positive relationship with its employees, direct them towards task fulfillment and ensure they have job satisfaction (Fisher, 2012). For economic growth and to compete globally, the construction industry has to continuously improving the standards of construction especially regarding quality of labor motivation because productivity is part of a key performance indicator to determine the success of the project. Methods for improving construction productivity among the workers are not possible without identifying factors

that influence productivity among them. (KazazandUlubeyli, 2013)

In order to achieve their goals and objectives, organizations develop strategies to compete in highly competitive markets and to increase their performance. Nevertheless, just a few organisations consider the human capital as being their main asset, capable of leading them to success or if not managed properly can lead to failure of the organisation and high staff turnover in productivity (Fisher, 2012). According to Ran(2014) employers are faced with the task of motivating employees and creating high job satisfaction among their staff. Developing programs and policies that embrace job satisfaction and serve to motivate employees takes time and money. When the employer understands the benefits of motivation in the workplace, then the investment in employee-related policies can be easily justified. If the employees are not satisfied with their jobs and not motivated to fulfill their tasks and achieve their goals, the organization cannot attain success.

People have different needs that are continuously competing with each other and vary with an individual. Each person has a different mixture and strength of needs, as some people are driven by achievement while others are focusing on security. If the managers/ supervisors are able to understand, predict and control employee behavior, they should also know what the employees want from their jobs. For that reason, it is essential for a manager/supervisor to understand what really motivates employees without making an assumption (Gurlandand Lam, 2018). Motivation in construction industry is to increase productivity so as to keep construction industry adding to the growth of Gross Domestic Product (GDP) and to maintain its largest share of employment of labour. Motivation is commonly sourced from intrinsic or extrinsic motives (HarrisandMcCaffer, 2013). Intrinsic motivation involves people doing an activity because they find it interesting and derive spontaneous satisfaction from the activity itself. Extrinsic motivation, in contrast, requires an instrumentality between the activity and some separable consequences such as tangible or verbal rewards; hence, satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads (HannaandBruggink, 2019).

Motivation was establish by different authors such as(Hunjra and Rehman,2016), who explained motivation as intangible, a hypothetical construct that is used to explain human behavior. But according to (IssaandKoblegard, 2015) motivation has been elucidate as “providing a drive

to act to satisfy needs or desires". Within the context of work, (Pinder, 2016) stated that work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration.

Elliot and Zahn (2018) described motivation as a psychological process initiated by existence of a need and involving a goal, a purposive activity directed towards reaching a goal and thereby satisfying the needs. The process can be understood in its simplest form as a threesteps process: first there is an internal need; second a behavioral action or direction to satisfy that need and third, the accomplishment or the satisfaction of the need. It may therefore be viewed as a set of individual relationships that explains the direction, and persistence of an individual behavior (Aina, 2014). Intrinsic Motivation refers to individual motivation stimuli that are coming from within. A desire to perform a specific task because its results are in accordance with his belief system or fulfill a desire and therefore importance is attached to it. Our deep-rooted desires have highest motivation power (Ajayi, 2015).

There three forms of intrinsic motivation. In the first form people engage in activity for its own sake since they find the activity itself as a source of joy and satisfaction. Example: can be hobbies that one chooses to pursue in the work context fulfilling an interesting task. The second form is activities which are tedious and unexciting but their accomplishment is a source of pressure. For instance meeting a deadline at work brings a sense of achievement. Third form is about compliance it state that it is a matter of compliance with standard for their own sake that propels people to act. These standards may be ethical standards, commitment to group members, and desire to act according values of material or fairness procedure (Fisher, 2012).

According to Elliot and Zahn(2018) extrinsic motivation is when people act because of external factors that prompt them to take action. Extrinsic motivation is concerned with whatever activity that is done to attain an outcome that is separable from the activity itself. In a career context extrinsic motivation means the desire to satisfy the need or goals that are not related to the work itself. For example, considering work as a mere tool for earning money. Extrinsic motivational is external in the nature. The most well-known and the most debated motivational is money. Other examples of extrinsic motivation include employee end of the month award, benefit

package, bonus and organized activities (Fabi and Pettersen, 2018).

The aim of the research is to investigate the effect of motivational factors (non-financial incentives schemes and intrinsic motivation) on worker's productivity in construction industry in Jos metropolis with a view to understanding the key factors that are capable of influencing employer productivity in the study area. The above aim shall be achieved through the following specific objectives:

- i. To identify the factors that affect worker's productivity in the construction firm in Jos south local government.
- ii. To identify the non-financial incentives schemes (NFIS) and intrinsic motivation employed by construction firm in the study area.

II. CONSTRUCTION WORKFORCE EFFICIENCY AND LABOUR PRODUCTIVITY

Uwakweh(2015) claim that productivity is related to workers' motivations, and worker motivation is directly linked to construction productivity. Uwakweh (2015) argued that construction workers can be made more productive by adopting the right system of motivation. Construction workforce efficiency and construction productivity which production was asserted by(Gurland and Lam, 2018) to have direct link with motivation are inseparable in the construction environment (Mathis, and Jackson 2017). Hunjra and Rehman, (2016) note the efficiency of construction workers as being comprised of the ratio of actual performance of an employee to the theoretical maximum or expected performance. Similarly, construction labour productivity can be defined as construction input (resources) divided by construction output (completed task) or vice versa, as explained later in this section. Therefore, there is a significant relationship between construction workers' efficiency and productivity. As such, the higher the efficiency of the construction workforce, the higher the productivity of an employee obtained. In the construction industry in particular, construction productivity implies labour productivity (Kazaz, ManisaliandUlubeyli, 2018).

Although a significant amount of research has been undertaken on construction labour productivity, there is no consensus on general productivity standards in the construction environment (Lingard, Brown, and Townsend, 2015). The absence of construction industry overall benchmarking of labour productivity could be a result of the complexity, diversity and

fragmentation inherent to the construction industry (Mudor, 2014). Several productivity definitions have been provided by different researchers and scholars; for example (Lingard, Brown, and Townsend, 2015) define construction productivity as the ratio of output to input (output/input). Conversely Yisa (2015) posits that construction productivity can be explained as the ratio of input to output. That is, labour productivity the actual work hours/quantity installed.

Constructions work Environment and Employees' Productivity

The nature of working conditions in any organization lays a basis for good productivity. According to Herzberg as quoted by (Rojas and Aramvareekul, 2013) the working conditions properly manipulated by the management and leadership hence, job satisfaction and subsequently motivation in employees. The nature of working environments in institutions entails the conditions in which employee work. These are governed by factors like adequate accommodation for the staff, terms of payments, how and when, hours of work, environment itself, provision and assurance of leave pays like sick, maternity and holiday pay, job security, pension assurance, retirement packages, empowerment and interpersonal relationships (Xiao-Hua, 2015). The provision of these adequate working securities enlists higher commitment subsequently more efforts that strive for good work.

As conceptualized by (Mudor, 2014) good working conditions create job satisfactions and motivation of employees and where such conditions are inadequate, yield into dissatisfaction of employees, others leave the organisation and develop negative attitudes towards the organization thus affecting their productivity at the work place. When employees work under poor management conditions, they tend to behave like caged animals looking for the slightest opportunity to escape and when such a time comes, they leave the institution without looking behind (Kazaz and Ulubeyli, 2013).

However, according to Irum, Ahmed and Sultana (2015) clarification of employees in institution is a difficult variable to determine for it is caused by a combination of factors some of which are externally correlated to the workplace and these should be thoroughly observed by all managers and school administrators. Working conditions in institutions are very important to the way employees feel about where they work. Employees feel proud of their institution when conditions are conducive and friendly to the

workforce. In institutions, they are more concerned with their work environment for both personal comfort and these facilities in doing a good job. Once they are provided to their staff, would enable them perform to their best remain committed and interested in the job (Irum, Ahmed and Sultana 2015). Better still, (Ajayi, 2015) contends that clean environment, classroom, staffroom, adequate rooms for teachers, family friendly policies, balance between work and leisure and other fringe benefits are the necessary conditions for the worker's productivity in schools. Other external conditioned like holiday pay, sick leaves, timely and adequate pays, job security and pension schemes are a catalyst to teachers' performance in schools. These still lack in institutions and most of the workers have found it difficult to cope up with situations. Their attitudes and behaviors have also been affected as well as their productivity.

In similar development, Issa and Koblegard (2015) assert that "Most employees prefer physical surroundings that are not dangerous and uncomfortable, prefer working relatively close to home in a clean environment with modern facilities, adequate tools and equipment. Most jobs however, require constant social interactions and consultations with other workers in the organizations through seminars, workshops and others need formulated rules and family friendly policies which have resulted into a happier staff, reduced staff turnover and frequent absenteeism at the work place. Social interaction with colleagues is still an important source of motivation in many jobs.

The provision of necessary conditions in time encourages the staff to work harder and keep them united as a team towards the achievement of the set goals. This not only reduces personal conflicts but also reduces the risks of demotivating factors with their related effects of their work places (Fisher, 2012), working as a team promotes the staff effectiveness, productivity and organizational efficiency (Elliot and Zahn, 2018). However, it is important to note that institutions that put their working staff first, (consideration have a more committed and dedicated workforce than other which do not). This leads to higher employee productivity and satisfaction that subsequently results into good productivity. Workers respect or deserve a lot of attention by all managers for the organizations' effective productivity at the work place. The costs of these institutions have also increased through retraining and recruiting an experienced and resourceful work force (Anthony and Aguilar, 2011).

Motivation and Construction Industry

The term ‘motivation’ is derived from the Latin word ‘mover’ which means to move and represent the force that moves people, and causes them to act. So, motivation can be defined as a process of channeling a person’s inner drive so that he wants to accomplish the goals of the organization. Motivation is a behavioral concept by which we try to understand why people behave as they do. A human being is an organic and not a mechanical system. He or she is a self-activated person. The force of motivation lies within our mind. It is dynamic force, setting a person into motion or action.

Some experts define motivation in different ways, such as; Motivation may be defined as the characteristic of an individual willing to expend effort towards a particular set of behaviours (Issa, andKoblegard, 2015). Robert (2013) has established motivation as “The complex of forces starting and keeping a person at work in an organisation”.Moreover,(Dalton McFarland 2018) said “The concept of motivation is mainly psychological. It relates to those forces operating within the individual employee or subordinate which impel him to act or not to act in certain ways.” On the other hand, (Mani,2018) establish motivation as “Motivation is a general term applying to the entire class of drives, desires, needs, wishes and similar forces”(Nduro, 2012). The construction industry is a business that largely centres on the management of people. Being such a

complex, dynamic and uncertain industry, it requires a precise and motivated workforce. And while it is generally accepted that construction workers can be motivated, it is an industry that predominantly focuses on motivation of the management teams and not subcontractors and construction workers. The issue of employee motivation is important as it establishes a substantial foundation for high performance levels with less unproductive work and wasted time on a construction site (Mee-Edoie, and Andawei,2014).

III. RESEARCH METHODOLOGY

The method employed for this study embrace extensive searching of literature connecting to the study such as journals, textbooks and internet. The sample frame for this study comprised of Architects, Quantity surveyors, Civil engineers, Builders and unskilled labour. Data analysis were undertaken using descriptive statistics by the application of SPSS where frequency mean and percentage were employed to interpret the results.

IV. RESULTS AND DISCUSION

The research administered a total of 165 questionnaires to the professionals in the study area. 150 properly filled and returned questionnaires were used for analyses and presented in this chapter.

Table 3: Questionnaire Response Rate

S/N	Respondent	Distribution	Returned	% Response Rate
1	Quantity surveyor	32	28	18.7
2	Architects	33	28	18.7
3	Civil Engineers	25	25	16.7
4	Builders	60	55	36.7
5	Unskilled workers	15	14	9.2
	Total	165	150	92

Table 4: Educational Specialization Type

Category	Group	Number of Respondents	Percentage (%)
Specialization	Architecture	27	20.8
	Building Technology	45	34.6
	Quantity Surveyor	28	26.9
	Engineering	23	17.0
	Unskilled workers	20	12.7
	Total	150	100

The demographic data of the 150 respondents is presented in Table 4. The table reveals that majority of the respondents specializes in building,

followed by quantity survey, architecture, engineering and unskilled workers.

Table 5: Level of Educational Qualification

Category	Group	Number of Respondents	Percentage (%)
Qualification	ND	10	7.7
	HND	17	11.1
	BSc/B.Tech	28	19.0
	MSc	39	28.0
	PhD	47	34.2
	Secondary	9	0
	Total	150	100

The research findings reveal that registered professionals with ND qualification account for 7.7%, HND account for 11.1%, BSc account for 19.0%, MSc account for 28.0%, PhD account for 34.2% and secondary account for 0%.

Table 6: Professional Institutions

Category	Group	Number of Respondents	Percentage (%)
Professional Institution	NIA	41	28.5
	NIOB	36	24.6
	NSE	33	9.2
	NIQS	32	21.5
	Others	14	22.3
	Total	150	100

This is an indication that majority of the professionals have requisite qualification and training for efficient delivery of responsibilities. Also, they are in a better position to offer professional advice with regards to the management of construction work.

Table 7: Years of Experience

Category	Group	Number of Respondents	Percentage (%)
Years of Experience in construction Industry	Less than 5 years	31	20.8
	5 – 11 years	46	32.3
	12 – 17 years	31	20.8
	17 – 23 years	30	20.0
	Over 20 years	16	9.2
	Total	150	100

Table 9: Factors that affect motivation and productivity at work

The table 9 shows the factors that affect motivation and productivity at work in construction industry in Plateau State which indicates that the major first five factors that affect motivation and productivity at work were as follows:

Workers strike due to unpaid wages was ranked 1st as the major factor that affect motivation and productivity of workers at work with a mean score of 4.22. Poor weather condition as another 2nd factor that affect motivation and productivity of

workers at work with mean score of 4.16. Unrealistic deadline for project set by client (deadline that is not easy to attain) with a mean score of 4.09 and ranked as 3rd, poor buildability design (design for gang of different trade to finish before another can continue) was ranked as the 4th with a mean score of 4.07 while, late issuance of construction drawings by consultant (detail set of drawings not deliver in bulk leading to the work done in bits or small sections) was ranked 5th with a mean score of 4.01.

S/N	Items	Mean	Std. Deviation	Ranking
1.	Workers strike dueto unpaid wages.	4.22	0.58	1 st
2.	Poor weather condition.	4.16	0.89	2 nd
3.	Unrealistic deadline for projects by client (deadline that is not easy to attain).	4.09	0.87	3 rd
4.	Poor buildability design (design for gang of different trade to finish before another can continue).	4.07	0.83	4 th
5.	Late issuance of construction drawings by consultant (detail set of drawings not deliver in bulk leading to the work done in bits or small sections).	4.01	0.87	5 th
6.	Provision of equipment for work with,(Adequate equipment to work with, quick replacement and repairs of broken down and old equipment).	3.94	0.86	6 th
7.	Inadequate site planning (site layout which leads to difficulty in movement).	3.76	0.77	7 th
8.	Rework due to construction error (making corrections on wrong work done).	3.50	0.89	8 th
9.	Late payment of interim certificate.	3.30	0.80	9 th
10.	Inadequate site staff (less labour for a task leading to excessive work load).	3.00	0.83	10 th
11.	Safety plans (Availability of first aid provision of safety kits etc.)	2.90	0.61	11 th
12.	Slow response of consultant's site staff tending to inspection work.	2.87	0.72	12 th

13.	Contractor staff absenteeism (Crew members not being present for work).	2.83	0.63	13th
14.	Material shortage on site (material getting finish while working).	2.80	0.87	14th
15.	Job security, Salary (permanent job, job all the time, payment of SSNIT etc.).	2.80	0.98	15th
16.	Waiting for other crew (waiting for gang of different trade to finish before another can continue).	2.61	0.77	16th

Source: Field Survey, 2021.

Table 10: Non-Financial Incentives Schemes being employed in the construction industry

The table 10 revealed the non-financial incentives scheme employed in construction industry which indicates that the major first five most used non-financial incentives were as follows: Insurance against accidents on site was determined to be one of the most non-financial incentives used in the construction industry with a mean score of 4.29 which was ranked as the 1st. Encouragement to

make suggestions about work was also another non-financial incentive with a mean score of 4.10 ranked as the 2nd. Provision of working tools and equipment was ranked as the 3rd with a mean score of 4.05. Safety plans including the provision of first aid with a mean score of 4.03 was ranked as the 4th. While, provision of sanitary facilities e.g. toilets, bath, dressing room, etc with a mean score of 4.00 was ranked 5th.

S/N	Items	Mean	Std Deviation	Ranking
1.	Insurance against accidents on site.	4.29	0.94	1 st
2.	Encouragement to make suggestions about work.	4.10	0.80	2 nd
3.	Provision of working tools and equipment.	4.05	0.62	3 rd
4.	Provision of free medical treatment.	4.03	0.82	4 th
5.	Provision of sanitary facilities e.g. toilets, bath, dressing room, etc.	4.00	0.79	5 th
6.	Transport to and fro work (site).	3.90	0.62	6 th
7.	Leadership by example.	3.79	0.74	7 th
8.	Employee training and development e.g. crafts apprenticeship program, job rotation, in-house training, etc.	3.77	0.81	8 th
9.	Recognition of effort through praise for significant work done.	3.68	0.76	9 th
10.	Provision of relaxation and recreation facilities.	3.66	0.88	10 th
11.	End of project get-together party and award night (Outstanding performance award).	3.64	0.89	11 th
12.	Provision of physical protective work device.	2.94	0.96	12 th
13.	Finish and go (Periodic i.e. daily or weekly task allocation/ accomplishment).	2.52	0.66	13 th

14.	Safety plans including the provision of first aid.	2.51	0.80	14 th
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Source: Field Survey, 2021.

Table 11: Intrinsic motivation among Workers

The table 11 shows the intrinsic motivation among workers in construction industry which indicates that the major first five most used intrinsic motivations among workers were as follows: Recognition and development of employee achievements and performance was ranked as the 1st with mean score of 4.32. Job characteristics—a

job is interesting and challenging with mean score of 4.29 was ranked as the 2nd. I have responsibilities I perform at the construction site it gives a sense of control over others was ranked as the 3rd with mean score of 4.19. I enjoy like profession with mean score of 4.06 was ranked as the 4th. Leadership – a trustworthy and respectful leader who leads by example with mean score of 4.05 was ranked as the 5th.

S/N	Items	Mean	Std Deviation	Ranking
1.	Recognition and development of employee achievements and performance.	4.32	0.79	1 st
2.	Job characteristics– a job is interesting and challenging.	4.29	0.87	2 nd
3.	I have responsibilities I perform at the construction site it give a sense of control over others.	4.19	0.76	3 rd
4.	I enjoy the profession.	4.06	0.83	4 th
5.	Leadership—a trust worthy and respectful leader who leads by example.	4.05	0.94	5 th
6.	Working in construction facility gives me a great deal of job satisfaction.	3.94	0.92	6 th
7.	Training and development—to enhance skill and ability to improve performance.	3.88	0.97	7 th
8.	The challenging nature of healthcare service has kept me in The profession.	3.72	0.64	8 th
9.	Salary– what you are paid monthly.	3.51	0.74	9 th
10.	Performance Appraisals-that is non-subjective and accurately measure employees performance levels.	3.36	0.98	10 th
11.	Working in construction atmosphere gives me recognition and respect from the community.	3.58	0.75	11 th
12.	Advancement and growth–opportunities within the organisation.	3.54	0.99	12 th
13.	Job security – confidence about future within the organisation.	3.01	0.99	13 th

Source: Field Survey, 2021.

V. CONCLUSION

The research concludes based on the findings such as:

- i. The non-financial incentives scheme used in construction industry in the study area are Insurance against accidents on site, Encouragement to make suggestions about

work, provision of working tools and equipment, Safety plans including the provision of first aid, and, Provision of sanitary facilities e.g. toilets, bath, dressing room, etc.

- ii. The intrinsic motivation among workers in the construction industry are Recognition and development – of employee achievements and

performance, Job characteristics – a job is interesting and challenging, having responsibilities they perform at the construction site it give a sense of control over others, enjoying profession, and, Leadership – a trustworthy and respectful leader who leads by example.

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