

LANDMARK UNIVERSITY INTERNATIONAL CONFERENCE ON MANAGEMENT, BUSINESS AND ENTREPRENEURSHIP (LU-ICMBE) 2021

# REVITALIZING DEVELOPING EGONOMIES TOWARDS ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGS): POST GOVID-19

May 19 - 20, 2021

Zoom Platform/International Conference Centre, Landmark University, Omu-Aran Kwara State.

# NON – FINANCIAL INCENTIVES AND CONSTRUCTION WORKFORCE PRODUCTIVITY IN NIGERIA.

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#### Abstract

Work force performance to a large extent influenced by policies of the organization. Construction industry makes significant contribution to the socio-economic development processes of developing countries by employing a large proportion of a country's labour force. This study seeks to evaluate the effect of non-financial incentives in construction workforce productivity in Nigeria. Descriptive survey research design was employed and 70 % response rate was achieved using study population of 280 construction industry stakeholders with practice in large, medium and small construction firms selected from 4 states in North Central Nigeria, including Kogi, Nasarawa, Abuja and Niger states. The study results were analysed and shows that Safety plans including the provision of first aid score the highest weight score of 1316, effective index of 4.7 and ranked 1<sup>st</sup>. The least of use among the identified non-financial incentives in construction firm is encouragement to make suggestion about work with a weighty score of 513, effective index of 1.8 and ranked 19<sup>th</sup>. Construction organisation should find out particular non – financial incentives that motivate the workforce rather than adopt a blanket range of non-monetary incentives some of which do not actually motivate the employee.

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Abstract—Work force performance to a large extent influenced by policies of the organization. Construction industry makes significant contribution to the socio-economic development processes of developing countries by employing a large proportion of a country's labour force. This study seeks to evaluate the effect of non-financial incentives in construction workforce productivity in Nigeria. Descriptive survey research design was employed and 70 % response rate was achieved using study population of 280 construction industry stakeholders with practice in large, medium and small construction firms selected from 4 states in North Central Nigeria, including Kogi, Nasarawa, Abuja and Niger states. The study results were analysed and shows that Safety plans including the provision of first aid score the highest weight score of 1316, effective index of 4.7 and ranked 1st. The least of use among the identified non-financial incentives in construction firm is encouragement to make suggestion about work with a weighty score of 513, effective index of 1.8 and ranked 19th. Construction organisation should find out particular non – financial incentives that motivate the workforce rather than adopt a blanket range of non-monetary incentives some of which do not actually motivate the employee.

Keywords: Construction workforce, Non – Financial Incentives, Productivity.

# Introduction

People are an important part of a construction project's success, the management of the workforce on a construction project has a major impact on the project's success or failure. Work force processes are strongly influenced by policies and procedures of the delivery organization. Construction industry makes significant contribution to the socio-economic development process in developing countries, employing a large proportion a country's labour force and helping in the improvement or acquisition of skills. The sector also stimulates other sectors through multiplier effects and makes significant contribution in terms of conserving and generating foreign exchange. In Nigeria being a developing country, the developer activity is predominantly labour intensive, attracting a large proportion of skilled and unskilled labour, including temporary and seasonal labour. The sector utilizes a broad range of technical, professional, administrative and management skills. Workers who are inadequately motivated according to El-Gohary and Aziz (2014), become apathetic or even resentful of their work. They further argued that low productivity can be attributed to the presence of a number of demotivators and therefore motivation cannot manifest in improved productivity unless these demotivators are first removed. Demotivation of construction workers may be mitigated through the recognition of basic human needs, giving praise, and providing adequate management support (El-Gohary and Aziz, 2014).

Parida, R., Sarkar, S., and Ray, P. K. (2016) in a study of bricklayer's productivity concluded that non-financial incentives are preferred as methods of motivating employees in the Nigerian construction industry. However, nothing has been done on assessing the effectiveness of nonfinancial motivation on workers' productivity in the construction industry. Besides, previous research in this area has been trade specific particularly for bricklayers in southwest, southeast and northern Nigeria (Parida, R., Sarkar, S., and Ray, P. K. 2016). This undoubtedly represents a gap in knowledge that this study intends to fill. The objectives of the current study therefore are to identify the types of non-financial motivational schemes adopted by construction firms toward improved productivity, and to assess the effectiveness of the identified motivational scheme in increasing workers output and job performance.

However, construction workers according to Kim, G. H. (2018) are not seen as an important input to project execution in Nigeria. This thereafter is responsible for low workers motivation as well as low productivity recorded in the sector. The rate of project abandonment has created nuisance to the environment and provided hideout for miscreants. This calls for effective strategy to tackle the myriads of problems facing the sector. If the trend is not

addressed through a workable motivation strategy, it will aggravate the existing situation (Abinbola, 2016).

The relationship between construction worker's motivation and productivity improvement has not been treated and yet to be fully addressed thereby creating gap that needs to be filled (Widanagamachchi, 2015). This research will therefore investigate the impact of non – financial incentives on construction workforce productivity. It is envisaged that the outcome of this research will help address the problem of motivation in construction firms in Nigeria. Nelson (2004) noted that non-financial incentives are the most efficient intrinsic reward that enhances employee performance while Kefale, S. (2019) see intrinsic reward as a tool that motivates employees to perform as expected. A well rewarded employee feels valued by the company they work for. They are also encouraged to work harder and better if they are aware that their wellbeing is taken seriously by their employers. No organization can achieve its stated objectives without its employees. Most people generally like to be recognized for making positive contributions to their jobs or tasks, and this makes non-financial rewards very effective motivators for employees Wiscombe, 2002. Although financial rewards are also important and inevitable means of compensating employees for their efforts, non-financial reward often leads to increases in morale, stress reduction, and reduced absenteeism Nelson, 2001. It is therefore a potentially cost-effective way of achieving competitiveness and enhancing productivity for the organization.

#### **Statement of the Problem**

The construction sector is bedevilled by many problems such as cost and time overrun, abandonment of projects, low productivity, low GDP and conflict among players in the industry (Mohammed and Isah, 2012; Kolawole and Anigbogu, 2004; Aiyetan and Olotuah, 2006; Umoru and Yaquib, 2013). The after math of these problems have resulted in litigation and job losses thus compounding the security situation and impairing the national economy (Kolawole and Anigbogu, 2004). However, construction workers according to Odesola and Idoro (2014) are not seen as an important input to project execution in Nigeria. This is responsible for conflict between labour and management identified by Kolawole and Anigbogu (2004). This thereafter is responsible for low worker's motivation as well as low productivity recorded in the construction sector within 2000 to 2018 (Aiyetan and Olotuah, 2006: Ugwu and Coker, 2012; Odesola, *et al.*, 2013; Lawal and Okhankhuele, 2018). The long term effect of poor treatment given to workers is the loss of human capital to other nations. This is inimical to the development of any nation

and most importantly Nigeria. This will adversely affect the growth of the economy and constitute barrier to long desired technological advancement of the nation (Chete *et al.*, 2014).

Nwachukwu (2001) also observed that most building workers on construction sites complain on the need for motivation which has been affecting productivity in the construction industry. Given the large nature of the construction industry and its importance to the Gross Domestic Product as well as number of people it employs, so there is need to identify ways at which workforce productivity in the construction industry can be improved. In view of the above, this study aims at improving non – financial incentives and construction workforce productivity in Nigeria and resistance to organisational change on productivity of construction workers in Nigeria. Four states within the north-central geopolitical zone will be covered in the study; these are, Nassarawa, Kogi, Niger and FCT Abuja, which are states that has more construction companies and construction project with the North Central. Therefore, the objectives of the study are:

- 1. To determine the extent to which identified non- financial incentives improve construction workforce productivity in firms.
- 2. To evaluate management commitment towards the implementation of non-financial incentives for productivity improvement in construction firms.
- 3. To examine the challenges of non- financial incentives on construction workforce productivity in Nigeria.

Thus, following research questions are pertinent:

- A. What are those non-financial incentives commonly used by construction firms in Nigeria? To what extent do these non-financial incentives improve workforce productivity in the construction firms?
- B. What are the management commitments towards the implementation of non-financial incentives on construction workforce productivity in Nigeria?
- C. What are the challenges faced by construction firms in improving non-financial incentives on construction workforce productivity in Nigeria?

# THEORETICAL REVIEW

### Non – Financial Incentives in Construction Firms

The incentives involved are fairly intangible and are the one related to maslows higher needs and involve in particular, the fulfilment of those needs defined by Herzberg as the motivating need. Thus the incentives offered acknowledge the importance of the individual and recognize his need for group participation to provide social satisfaction. Certain work requires little to be

provided by the employer as an incentive, much of the work is useful to self – motivating. It is therefore necessary in most cases of offer additional incentives of a more tangible nature and

associated with hygiene needs often expressed as semi financial incentives. It is not always necessary to give extra payment to motivate people. This can be seen in all industries where in certain areas the wages are not as high as local competitors but labour relations and working conditions are good. These conditions are as follows.

- 1. Provision of working tools and equipment
- 2. Employee training and development
- 3. Recognition through praise for a significant work done
- 4. Encouragement to make suggestion about work
- 5. Provision of protective work devices
- 6. Supervision based on leadership by example
- 7. Safety plans including the provision of first aid
- 8. Finish and go (no delay after day's work)
- 9. Free medical treatment for workers
- 10. Transportation to and from site
- 11. Provision of recreation and relaxation centres
- 12. End of the year cocktail party and award night
- 13. Love and belongingness
- 14. Job security
- 15. Free insurances scheme
- 16. Free school run logistics for worker's children.

# **Productivity in Construction**

Productivity is dominant issue in construction, promising efficient usage of resources and cost savings and ultimately affecting efficiencies, profitability and competitiveness of construction organizations. It is a subject of national importance since countries are interested to know how their construction industry compares with other countries (Flangan et al, 2012). Productivity in construction is often broadly defined as output per labour hour. Because of diversity of construction industry, a single index for the entire industry is neither meaningful nor reliable. Productivity indices may be developed for major segments of the construction industry nationwide if reliable statistical data can be obtained for separate industrial segments. Al-Fadhali, N., Zainal, R., Kasim, N., Dodo, M., Kim Soon, N., & Hasaballah, A. H. A. (2019) opine that productivity has been one of the main issues from the conception of the project. Much of the research for the past four decades that have focused on construction productivity seem to

point to the fact productivity is on the decline. This view is however contradicted by the findings of has et al, (2010) that spanned twenty-five years which indicate there has been no decrease in productivity.

# **Measurement of Productivity**

Productivity measurement is not an end in itself, its indicators as measures are just means towards being able to take correct actions that will improve the situation (Abiola, 2009). In the urban sector, productivity measures may be interpreted as attempts "to measure the effectiveness with which management skills, workers, materials, equipment, tools and working space is employed at, or in support of, work- face activities to produce a finished building, plant, structure, or other fixed facility at the lowest feasible cost" (Oglesby, et al, 2010). In addition to site activities, urban productivity measurement includes the assessment of a range of functions and factors, including design, specification, standards and standardization, quality and economy regulation and inspection (Rau, 2012).

# Workforce in the Construction of a Sustainable Development Project

The construction industry can be divided into three major segments. These include; Construction of building by Building Contractors, or General Contractors. These contractors build residential, industrial, commercial, and other buildings. The second category is the Heavy and Civil Engineering Construction Contractors that build sewers, roads, highways, bridges, tunnels, and other projects. Specialty Trade Contractors who perform specialized activities relating to construction such as carpentry, painting, plumbing, tiling, and mechanical and electrical works form the third segment. Those that lease heavy earth moving equipment, plant and machineries for construction purposes are also in this category.

Construction usually is done or coordinated by general contractors, who specialize in one type of construction such as residential or commercial building. They take full responsibility for the complete job, except for specified portions of the work that may be omitted from the general contract. Although general contractors may do a portion of the work with their own crews, they often subcontract most of the work to heavy construction or specialty trade contractors. Specialty trade contractors usually do the work of only one trade, such as painting, carpentry, or electrical work, or of two or more closely related trades, such as plumbing and heating. Beyond fitting their work to that of the other trades, specialty trade contractors have no responsibility for the structure as a whole. The Nigerian construction industry is not controlled as anybody can build any structure without government knowledge or building code stipulations.

#### **METHODOLOGY**

The study's research design methodology involved descriptive survey, while the analysis utilised a combination of descriptive and inferential statistical methods. The questionnaire solicited responses on the improve workforce productivity in project delivery through non – financial incentives. Quantitative approaches are more specific and result oriented and it involves the collection of numerical data in order to explain, predict, and/or control phenomena of interest (Halwatura, 2015).

The study population comprised of major construction industry stakeholders including construction companies, construction consultancy firms, construction client organizations, building materials manufacturing firms, and construction labour organisations located in selected states of the Nigeria's North Central geopolitical zone, namely- Niger, Nassarawa, Kogi and the Federal Capital Territory. A total of 300 questionnaires were purposively and evenly distributed, out of which 280 were returned, representing 90% success rate. The response was considered adequate for a zonal study of this nature.

# **Ouestionnaire distribution**

| S/N | State     | Sample<br>size | Percentage % representation of sample frame | Questi<br>return |     | Percentage % representation of returned questionnaires |
|-----|-----------|----------------|---|------------------|-----|--|
| 1.  | Auja      | 130            | 43  | 120              | 43  |  |
| 2.  | Nassarawa | 60             | 20  | 55               | 19  |  |
| 3.  | Kogi      | 60             | 20  | 58               | 21  |  |
|     | Niger     | 50             | 17  | 47               | 17  |  |
|     | Total     | 300            | 100   | 280              | 100 |  |

This study was handled using quantitative descriptive tables, structural equation model (SEM) Data in and a 5-point likert scale with a mark-up point as thus:

1.00 - 1.80 (To no extent (TNE))

1.81 - 2.60 (To a low extent (TLE))

2.61 - 3.40 (To a moderate extent (TME))

3.41 – 4.20 (*To a commendable extent (TCE)*)

1.21–5.00 (*To a great extent (TGE)*)

# **Discussions and Interpretations of Results**

**Objective 1:** To determine the extent to which identified non- financial incentives improve construction workforce productivity in firms.

Table 4.3: Extent of Non-financial incentive in improving construction workforce productivity.

| Non-financial Incentives                               | N   | 5   | 4   | 3   | 2   | 1   | Weighed<br>Score | Influence<br>Index | Ranking            | Remarks      |
|--|-----|-----|-----|-----|-----|-----|------------------|--------------------|--------------------|--------------|
| Provision of working tools and equipment               | 280 | 177 | 65  | 33  | 5   | 0   | 1254             | 4.4                | 4 <sup>th</sup>    | High         |
| Employee training and development                      | 280 | 125 | 97  | 33  | 10  | 15  | 1147             | 4.0                | 5 <sup>th</sup>    | High         |
| Recognition through praise for a significant work done | 280 | 5   | 15  | 218 | 27  | 15  | 808              | 2.8                | 14 <sup>th</sup>   | Average      |
| Encouragement to make suggestion about work            | 280 | 3   | 7   | 50  | 100 | 120 | 513              | 1.8                | 19 <sup>th</sup>   | Low          |
| Provision of protective work devices                   | 280 | 120 | 60  | 81  | 16  | 3   | 1118             | 3.9                | $7^{\text{th}}$    | High         |
| Supervision based on leadership by example             | 280 | 31  | 162 | 49  | 25  | 13  | 1013             | 3.6                | 9 <sup>th</sup>    | High         |
| Safety plans including the provision of first aid      | 280 | 230 | 30  | 8   | 10  | 2   | 1316             | 4.7                | 1 <sup>st</sup>    | Very<br>high |
| Finish and go (no delay after day's work               | 280 | 4   | 10  | 6   | 200 | 60  | 538              | 1.9                | $18^{th}$          | Low          |
| Free medical treatment for workers                     | 280 | 100 | 80  | 16  | 54  | 30  | 1006             | 3.5                | $10^{\text{th}}$   | High         |
| Transportation to and from site                        | 280 | 195 | 60  | 20  | 3   | 2   | 1283             | 4.5                | $3^{\rm rd}$       | High         |
| Provision of recreation and relaxation centres         | 280 | 40  | 10  | 9   | 130 | 91  | 618              | 2.2                | 16 <sup>th</sup>   | Low          |
| End of the year cocktail party and award night         | 280 | 16  | 97  | 108 | 33  | 26  | 884              | 3.1                | 12 <sup>th</sup>   | Average      |
| Love and belonging                                     | 280 | 143 | 63  | 33  | 23  | 18  | 1130             | 4.0                | 6 <sup>th</sup>    | High         |
| Job security   | 280 | 64  | 114 | 25  | 43  | 34  | 971              | 3.4                | $11^{\mathrm{th}}$ | Average      |
| Free insurance scheme                                  | 280 | 16  | 30  | 80  | 129 | 25  | 723              | 2.5                | 15 <sup>th</sup>   | Average      |
| Sport Facilities                                       | 280 | 10  | 10  | 40  | 120 | 100 | 550              | 1.9                | $17^{\text{th}}$   | Low          |
| Free school run logistics for worker children          | 280 | 26  | 32  | 133 | 59  | 30  | 805              | 2.8                | $13^{th}$          | Average      |
| Holiday with pay                                       |     | 230 | 30  | 10  | 8   | 2   | 1301             | 4.6                | $2^{\text{nd}}$    | Very<br>high |
| Relocation expenses                                    | 280 | 100 | 80  | 54  | 30  | 16  | 1058             | 3.7                | $8^{th}$           | High         |

Source: Authors field survey, 2020

**Discussion of Findings:** The extent to which identified non-financial incentives improve construction workforce productivity was examined through the process of linket scale ranking. Effective index was used to determine the extent at which the identified non-financial incentives improve construction productivity. Table shows the analysis of the extent of non-financial incentives in improving construction workforce. It was discovered that Safety plans including the provision of first aid score the highest weight score of 1316, effective index of 4.7 and ranked 1<sup>st</sup> which signifies that the use of Safety plans including the provision of first aid is very high in construction firms, followed by holiday with pay with weighty score of 1301, effective index of 4.6 and ranked 2<sup>nd</sup> which also signifies that use of holiday with pay in construction firm as non-financial incentives is also very high. The least of use among the identified non-financial incentives in construction firm is encouragement to make suggestion about work with a weighty score of 513, effective index of 1.8 and ranked 19<sup>th</sup> among the identified non-financial incentives, which signifies that the use of encouragement to make suggestion about work in construction firms is low.

**Objective 2:** To evaluate management commitment towards the implementation of non-financial incentives for productivity improvement in construction firms.

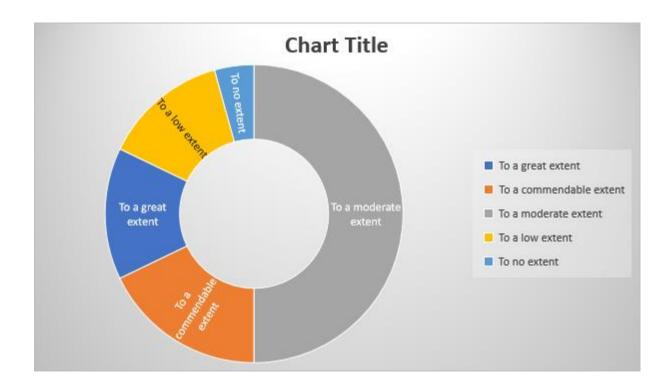


Figure 1: Level of Management Commitment towards the use of non-financial incentives

(Source: Authors' Field Survey, 2020)

**Discussion of Findings:** Management commitment towards the implementation of non-financial incentives for productivity improvement in construction firms through five scale of "to great extent, to a commendable extent, to a low extent and to no extent". It was discovered that 14.29% of the respondent agree that management commitment towards the use of non-financial incentives is to a great extent, 17.86% of the respondent to a commendable extent. Majority of the respondents with 50% agree that the use of non-financial incentives productivity improvement in construction firm is to a moderate extent.

**Objective 3:** To examine the challenges of non-financial incentives on construction workforce productivity in Nigeria.

Table 4.4: Challenges faced by construction firms towards the use of non-financial incentives for productivity workforce

| Non-financial Incentives                                   | N   | 5   | 4   | 3  | 2   | 1   | Weighed<br>Score | Influence<br>Index | Ranking         | Remarks |
|--|-----|-----|-----|----|-----|-----|------------------|--------------------|-----------------|---------|
| Company policy   | 280 | 120 | 80  | 50 | 20  | 10  | 1120             | 4                  | $2^{\text{nd}}$ | High    |
| Cost of implementing Non-<br>financial incentives in firms | 280 | 74  | 146 | 28 | 15  | 17  | 1085             | 3.8                | $3^{\rm rd}$    | High    |
| Companies budget   | 280 | 148 | 64  | 24 | 34  | 10  | 1146             | 4.0                | 1 <sup>st</sup> | High    |
| Inadequate information about non-financial incentives      | 280 | 15  | 18  | 40 | 129 | 78  | 603              | 2.1                | 5 <sup>th</sup> | Low     |
| External inhibition  | 280 | 30  | 16  | 54 | 80  | 100 | 678              | 2.4                | $4^{th}$        | Low     |
| Litigation Risk and Cost                                   | 280 | 18  | 23  | 33 | 63  | 143 | 553              | 1.9                | 6 <sup>th</sup> |         |
| A Fragmented Industry                                      | 280 | 30  | 19  | 10 | 25  | 13  | 319              | 1.1                | $7^{th}$        | High    |

Source: Authors field survey, 2020

**Discussion of Findings:** Challenges faced by construction firms towards the implementation of non-financial incentives was examined through company policy; cost of implementing non-financial incentives in firm; companies budget; inadequate information about non-financial incentives; external inhibition; litigation risk and cost and a fragmented industry. It was discovered from table 4.4 that companies budget has the highest weighted score of 1146, effective index of 4.0 ranked 1<sup>st</sup>, which signifies high among the challenge's variables, followed by company police with a weighted score of 1120, effective index of 4.0 and ranked 2<sup>nd</sup> which also signify high. Fragment of industry has the least weighted score of 319, 1.1 effective index and ranked 7<sup>th</sup> among the challenges variables which signify low. Which means that Fragmented Industry is a major challenge faced by construction firms towards the used of non-financial incentive to improve productivity in construction firm.

#### CONCLUSION/RECOMMENDATIONS

The various types of non-financial incentive scheme identified are Provision of working tools and equipment; Employee training and development; Recognition through praise for a significant work done; Encouragement to make suggestion about work; Provision of protective work devices; Supervision based on leadership by example; Finish and go (no delay after day's work); Free medical treatment for workers; Transportation to and from site; Provision of recreation and relaxation centres; End of the year cocktail party and award night; Love and belongingness; Job security; Free insurance scheme; Free school run logistics for worker children; Holiday with pay and Relocation expenses.

The reason for their unpopularity is because they are not being practised by most construction firms. Perhaps, if some firms would consider implementing some of these reward systems, they might serve as productivity booster, and also money does not speak of everything there are other means in which building workers productivity can be improved through the provision of these non – financial incentives to construction workers.

# Recommendations

Based on the findings and knowledge on the conclusion of the study, the following recommendations were made in respect of using non – financial incentives towards attainment of high productivity among construction workers.

- Most construction companies should find non- financial incentives in operation, management should find out particular non- financial incentives that are motivation rather than employ a blanket range of non-monetary incentives some of which do not actually motivate the employee.
- Non- financial incentives should be implemented in the construction industry without bias. No particular cadre should be given preference against the other.

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