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*Strictly as per the compliance and regulations of:*



# Impact of Methods of Selecting Incentive Schemes on Incentive Performance in Construction Projects in Lagos State Nigeria

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## 1. INTRODUCTION

The construction industry plays a vital role in the economy of Nigeria and its social development. It provides social infrastructure and backbone for economic activities; this is because of the construction industry's capacity to provide employment on a large scale (Sanusi, 2008). It is expected that the vital role the construction industry plays should ensure job stability, labour retention, enhanced worker output, but this is hardly the case as a result of inefficiencies in the industries' operations.

Azasu (2003), submitted that there is a need to optimize the use of human resources within the construction industry. This optimization can be partly achieved by the use of incentive schemes, because incentives helps in enhancing worker performance. Incentives therefore, afford organizations a genuine opportunity to create an environment in which employees work together to achieve good results; and it also enable all parties to make reasonable returns and bear appropriate risks (Tang, *et al.*, 2007).

Incentives generally refer to rewards used to induce workers to perform at a given extra level beyond

a required level of achievement (Makenzie, *et al.*, 1998). required level of achievement (Makenzie, *et al.*, 1998). Incentives represent a benefit for an exceptional action which may be a stimulus for greater action; they are usually given to workers to motivate them for better performance.

Studies revealed that a number of incentives are available to suit many workers. Clark and Wilson (1961), classified incentives as material (such as wages, fringe benefits, e.t.c), solidary (which are intangible rewards from the act of association) and purposive incentives related to the goals of the organization. However, in the construction industry, incentives offered to construction workers are the financial incentives given to manual workers, non-financial incentives or semi-financial incentives given to managerial or clerical workers (Harris and Mc Caffer, 2005).

Incentive schemes are programmes developed purposely to encourage a specific course of action or stimulate workers to behave in a particular manner. According to Rao (2011), incentive schemes envisage a basic rate usually on time basis, applicable to all workers and incentive rates payable to the more efficient among workers as extra compensation for their deserved performance in terms of cost, time and quality. Specific types of incentive schemes used in the construction industry include the profit sharing, day work, piecework, standard time or hour system, hour saved system, e.t.c (Harris and McCaffer, 2005).

Recent studies have shown that incentive schemes have a huge impact on the workers generally. The study conducted by (Burgess, *et al.*, 2004), revealed that incentives had a substantial positive effect when applied in small teams, and a negative response in large teams in the public sector. Katz (2000), also pointed out the importance of the team size in selecting a group-based incentive scheme. He explained that the smaller the group, the greater the impact of the incentives on the motivation of workers; he further explained that basing rewards on individual performance is generally associated with increased pressure on individuals to perform and to accept responsibility for their own actions. Aina (2011), concluded that non-financial incentives performed better than the financial incentives on construction workers; Suri (1970), showed that wage incentive succeeded in

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raising the productivity while increasing the workers' earnings; and Fagbenle, *et al.*, (2004), concluded that non-financial incentives significantly improved bricklayers' productive time.

However, the impact of incentive schemes is greatly affected by their methods of selection. Separate studies conducted by Daniel and Gary (2006), Gregori (2006), and McGinnis and Keng (2012) revealed that most organizations derive the use of incentive schemes through selection by tradition; study-based selection; selection by discretion; selection based on performance measurement; selection based on large group measure; selection by subjective performance measure; and selection by broad financial measure.

When organizations commence the use of incentive schemes, they do this with the purpose of achieving its effectiveness. However, the effectiveness of incentive schemes is manifested in the characteristics resulting from the selection methods employed for the schemes.

Rao (2011), opined that an effectively selected incentive scheme should possess the following attributes: it must be simple to understand; it must guarantee minimum wages irrespective of the performance of the workers; it must be simple and easy to operate; the plan should not be a costly affair; there should be very little gap between performance and pay; it should take the workers' union into consideration; and all workers must get an equal opportunity to earn the incentive pay.

The Incentive Research Foundation's paper (2011), *Motivating Today's Workforce*, further explained that poorly selected incentive schemes can produce poor results, lack of motivational appeal or results to unintended consequences. Moreover, for incentive schemes to be effective in its selection, it must be fully integrated into the organization's culture, clientele and processes and products; it must be fair and transparent and it should be simple and flexible (Holtman, 2002). Bates (1999), had earlier explained that one of the most important ingredients in selecting incentive schemes is setting clear and attainable goals for employees. These goals must be simple, quantifiable, and monitored by strong controls.

The benefits derivable from a well selected incentive scheme are several. For example, Bhattacharya (2011), explained that an effectively selected incentive scheme should increase the productivity of workers, enhance the quality of work and the working life of workers, create a climate for healthy competition among workers and reduce the cost of production per unit and reduce idle time.

Despite all these benefits, construction firms usually assume that the incentive scheme that works for one firm will work for every other firm (Allison and Jennifer, 2010). Furthermore, construction firms often attempt to select incentive schemes without considering

in detail how the scheme will best suit their targeted workers. However, since incentive schemes cost money, care needs to be taken in ensuring that incentive schemes are well selected in order to avoid potential drawbacks.

Prominent among the drawbacks that could result from a poorly selected incentive scheme are the generation of potential rifts among workers, especially if some of the workers feel they are being unfairly treated; labour union opposition and low productivity (Bhattacharya, 2011).

Three major thoughts can be summed up from the foregoing, these include: (a) there is a need to effectively select incentive schemes (b) there are advantages derivable from such selection in (a) and (c) there are disadvantages emanating from neglect of the methods of selection. In the construction industry in Lagos state, research have not addressed these areas, they thus constitute the questions to be addressed by this research.

## II. METHODS OF SELECTING INCENTIVE SCHEMES

The need to achieve maximum efficiency in the use of labour for the sole purpose of boosting productivity has brought about the need for incentives. Incentive is a tool for stimulating human effort; people are encouraged to give out their best by inducing them to greater and more productive effort (Duleep, 2004). Incentive schemes are programmes developed purposely to encourage a specific course of action or stimulate workers to behave in a particular manner.

Baumgarten (2013), submitted that a successful incentive scheme focuses on achieving organizational goals by driving the right behavior in employees. Since incentive schemes are a link between workers and considerable changes in their productivity, care needs to be taken in their selection. A key benefit derivable from appropriate selection of incentive schemes is that workers meet their physical and financial goals while organizations become more valuable and marketable.

A study conducted by Heathfield (2013), revealed that while some incentives can be dealt with quickly at an operational level, some will require an important consideration of the methods for selecting the schemes for their use; and a prominent reason for the failure of incentive schemes is that organizations do not take into account the methods of selecting these schemes. Gregorio (2006), reported that the first issue with incentive schemes commonly used in the United State's construction industry is that they are predominantly discretionary. He claimed that seventy five percent of respondents in his studies indicated that their incentives were determined by senior management's discretion. He further claimed that senior management of organizations decides what incentive

will be of any tangible benefit to organizational performance, divisional contribution or individual achievements based on self judgement.

Burgess and Metcalfe (1999), argued that selection of incentive schemes by subjective performance has a problem of being non-verifiable since selection is based on subjective evaluation which is at risk of falsification by the superior officers. Furthermore, this is likely to be particularly a problem in cases where extra pay associated with a good report comes directly from the assessor's budget.

The importance of considering the selection of incentive schemes is inherent in the advantages and disadvantages manifested by incentives upon use. According to Mc Querrey (2012), incentive schemes could result to increase in the volume of output; reduction of cost of production per unit; reduction of labour turnover and idle time. Aaronson (2012), argued that while incentive schemes may have some benefits, it could deteriorate the quality of production output; affect the introduction of improved methods; and increase the number of clerical work due to calculations involved in computing incentive earnings. Most of these draw backs in the use of incentive schemes could be avoided when incentive schemes are selected using appropriate methods.

Studies conducted by Daniel and Gary (2006), Gregori (2006) and Mc Ginnis and Keng (2012) have identified a number of methods employed by organizations in selecting incentive schemes. They include: selection by tradition; study-based selection; selection by discretion; selection based on performance measurement, selection based on large group measure; selection by subjective performance measure; and selection by broad financial measure.

Selection of incentive schemes by performance measure is based upon supervisors' perception of employee's performance rather than objective results; selection of incentive schemes by tradition involves selection based on the assumption that incentive schemes once adopted by an organization will most likely continue to work for the organization; selection of incentive schemes based on performance measurement makes use of objective data from employees performance and bases its selection on a well defined and understood formulae; selection based on large group measure involves selection based on large group results from employees. Incentive schemes selected through this method include the profit sharing and gain sharing schemes (Gregori, 2006). Furthermore, selection based on broad financial measure entails selecting incentive schemes based on broad financial results such as return on equity, return on assets, e.t.c. Daniel and Gary (2006), argued that employees should not be evaluated or paid for results he or she has little or no impact upon. Lastly, selection by discretion involves selection based on management's judgement where

selection measure, criteria, and pay potential are unpredictable and change frequently.

The choice of methods adopted by organizations is greatly influenced by a number of factors. Hottman (2002), listed the factors influencing the choice of methods for selecting of incentive schemes as: composition of workforce, culture, external environment, system of governance and strategy, types, incentive scheme's objective, cost and benefit analysis, timing, availability of standardized work measurement techniques, adequacy of work, availability of equitable wage structure, availability of improved and simplified work methods, presence of new workers, fluctuations in production, nature of tasks, financial capacity of the company, incentives scheme's term, level of understanding of incentive schemes by workers and the need for completion of tasks.

### III. METHODS OF DATA COLLECTION AND ANALYSES

This study utilized primary data generated through questionnaire survey. The questionnaires were administered on one hundred and four (104) project managers of forty (40) construction firms selected randomly from the sixty six construction firms in Lagos State that were registered with the Federation of Construction Industry (FOCI). The questionnaire was designed to collect information on the effect of selection on the performance of incentive schemes. The questionnaire comprised two sections. The first section was designed to collect information on the methods they employ in selecting incentive schemes. The project managers were asked to rank the methods on a likert scale of always employed, often employed, sometimes employed, rarely employed and never employed. The ratings were assigned a value of 4,3,2,1,0 respectively.

The second section of the questionnaire was designed to collect information on the characteristics manifested by incentive schemes upon selection. The project managers were asked to rank these characteristics on a likert scale of strongly agree, agree, undecided, disagree and strongly disagree. The ratings were assigned a value of 4,3,2,1,0 respectively.

The data on the methods of selecting incentive schemes and the characteristics of incentive schemes upon selection were analyzed with the use of mean and standard deviation. In order to determine the characteristics manifested by incentive schemes upon selection by each of the methods of selection, the Spearman's Rank Order Correlation was employed. The Spearman's Rank Order Correlation was employed for this analysis because data were obtained using the ordinal scale. The Spearman's Rank Order Correlation Coefficient is denoted by  $\rho$  (rho), and it is expressed mathematically as:



$$\rho = \frac{16 \sum d^2}{n(n^2-1)}$$

Where:

$\rho$  = rho rank correlation

$d$  = distance between corresponding ranks

$n$  = number of observations

#### IV. RESULTS AND DISCUSSIONS

Summarized in the Table 1 are the results of the analysis of the responses on the methods employed by construction firms in selecting incentive schemes. The result indicated selection by discretion ranked first among the methods employed by construction firms in selecting incentive schemes with a mean value of 2.50. Selection based on performance measurement was

ranked second with a mean value of 2.30. Selection by large group measure was ranked least with a mean value of 0.95. From the foregoing, the analysis posits that incentive schemes are most frequently selected by discretion. This result supports the view of Gregorio (2006) which confirmed that selection of incentive schemes by management of organizations is mostly discretionary.

*Table 1 : Methods of Selecting Incentive Schemes*

S/No	Methods	N	Mean	Standard Deviation	Rank
1.	Selection by subjective performance	104	1.88	1.409	5
2.	Selection by tradition	104	2.23	1.450	3
3.	Study based selection	104	2.17	1.178	4
4.	Selection based on performance measurement	104	2.30	1.253	2
5.	Selection based on large group measure	104	0.95	0.702	7
6.	Selection based on broad financial measure	104	1.88	0.784	5
7.	Selection by discretion	104	2.50	1.407	1

Presented in Table 2 are the results of the assessment of the characteristics manifested by incentive schemes in construction firms upon selection. The variable with the highest and the lowest Mean respectively were 'incentive schemes often results in reduction of labour costs (3.52), and incentive schemes poses difficulty in the introduction of improved methods, better tools and machines (0.37)'. The Mean values of respondents' assessment of the characteristics manifested by incentive schemes upon selection in descending order of magnitude were 'Incentive schemes guarantee extra pay that is consistent with extra effort' (3.51), 'Incentive schemes stimulate workers to put in extra effort' (2.59), 'incentive schemes take the safety of workers into consideration'(2.46), 'workers' earnings are not restricted as far as possible (2.43)', 'the schemes are fair in its determination' (2.27), 'the

schemes are clear, well understood and easily calculable by all workers'(2.22), 'relationship among workers is ruptured as a result of incentive schemes offered'(1.79) 'incentive schemes cause to fight among workers'(1.75), 'incentive schemes undermine the interest of workers' (1.67), 'incentive schemes often lead to reduction in the quality of work' (1.62), 'incentive scheme creates a manipulative effect on workers'(1.61), 'incentive schemes often lead to unhealthy competition among workers'(1.51), 'Incentive schemes cause workers to avoid risk taking or exploration of possibilities' (1.48), and 'incentive schemes pose difficulty in the introduction of improved methods, better tools and machines' (0.37). This result therefore suggests that the use incentive scheme is mostly perceived to result to reduction in labour costs.

*Characteristics of incentive schemes after selection*

S/N	Characteristics of Incentive Schemes	N	Mean	Standard Deviation	Rank
1.	Relationship among workers is ruptured as a result of incentive schemes offered.	104	1.79	1.473	8
2.	Incentive scheme creates a manipulative effect on workers	104	1.61	1.529	12
3.	Incentive schemes often lead to unhealthy competition among workers	104	1.51	1.435	13
4.	Incentive schemes cause workers to avoid risk	104	1.48	1.441	14

	taking or exploration of possibilities				
5.	Incentive schemes undermine the interest of workers	104	1.67	1.368	10
6.	Incentive schemes cause to fight among workers	104	1.75	1.512	9
7.	Incentive schemes often lead to reduction in the quality of work	104	1.62	1.496	11
8.	Incentive schemes pose difficulty in the introduction of improved methods, better tools and machines.	104	0.34	0.474	15
9.	Worker earnings are not restricted as far as possible	104	2.43	1.440	5
10.	Incentive schemes often results in reduction in labour costs	104	3.53	0.539	1
11.	Incentive schemes take the safety of workers into consideration	104	2.46	0.501	4
12.	Incentive schemes stimulate workers to put in extra effort	104	3.51	0.521	2
13.	The schemes are clear, well understood and easily calculable by all workers	104	2.22	1.643	7
14.	The schemes are fair in its determination	104	2.27	1.662	6
15.	Incentive schemes guarantee extra pay that is consistent with extra effort	104	2.59	1.355	3

#### *Correlation Analysis of the Methods of Selecting Incentive Schemes and the Characteristics manifested by the Incentive Schemes*

Presented in Table 3 is the correlation analysis of the methods of selecting incentive schemes and the characteristics manifested by the incentive schemes. This correlation analysis was carried out to analyze the characteristics associated with each of the methods employed by construction firms in selecting incentive schemes.

The result in column 1 of Table 3 shows that there is a strong positive correlation between variables- relationship among workers is ruptured as a result of incentive schemes offered (0.659), incentive schemes create a manipulative effect on workers (0.705), incentive schemes often lead to unhealthy competition among workers (0.735), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.676), incentive schemes undermine the interest of workers (0.680), incentive schemes cause fight among workers (0.716), incentive schemes often lead to reduction in the quality of work (0.543), and the selection of incentive schemes by subjective performance measure at the 0.01 level of confidence while a strong negative correlation exists between variables- workers earnings are not restricted as far as possible (0.622), the schemes are clear and easily calculable by all workers (0.690), the schemes are fair in its calculation (0.768), incentive schemes guarantee extra pay that is consistent with extra effort (0.666), and the selection of incentive schemes by subjective performance measure at the 0.01 level of confidence.

The result showed that the selection of incentive schemes by performance measure causes incentive

schemes to manifest following characteristics- 'relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among worker, incentive schemes often lead to reduction in the quality of work'. Furthermore, incentive schemes exhibit the direct opposite of the following characteristics upon selection schemes by subjective performance: 'workers earnings are not restricted as far as possible , the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its calculation, incentive schemes guarantee extra pay that is consistent with extra effort'.

The result in column 2 of Table 3 revealed that there is a strong positive correlation between variables - relationship among workers is ruptured as a result of incentive schemes offered (0.783), incentive schemes create a manipulative effect on workers (0.658), incentive schemes often lead to unhealthy competition among workers (0.754), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.779), incentive schemes undermine the interest of workers (0.765), incentive schemes cause fight among workers (0.589), incentive schemes often lead to reduction in the quality of work (0.640), and the selection of incentive schemes by tradition at the 0.01 level of confidence. A strong negative correlation exists between variables- incentive schemes pose difficulty in the introduction of improved methods, better tools and machines (0.241), workers earnings are not restricted as far as possible (0.687), the schemes are clear, well

understood and easily calculable by all workers (0.814), the schemes are fair in its calculation (0.834), incentive schemes guarantee extra pay that is consistent with extra effort (0.627), and the selection of incentive schemes by tradition at 0.01 and 0.05 levels of confidence.

The result revealed on the one hand that, the selection of incentive schemes by tradition causes incentive schemes to manifest the following characteristics- relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among workers, incentive schemes often lead to reduction in the quality of work. On the other hand, incentive schemes were perceived by respondents to exhibit the direct opposite of the following characteristics upon selection schemes by tradition: 'incentive schemes pose difficulty in the introduction of improved methods, better tools and machines, workers earnings are not restricted as far as possible, the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its calculation, incentive schemes guarantee extra pay that is consistent with extra effort'.

The result in column 3 of Table shows that there is a strong positive correlation between variables- workers earnings are not restricted as far as possible (0.535), the schemes are clear, well understood and easily calculable by all workers (0.0.706), the schemes are fair in its calculation (0.717), incentive schemes guarantee extra pay that is consistent with extra effort (0.545) and the study-based selection of incentive schemes at the 0.01 level of confidence while a strong negative correlation exists between variables- relationship among workers is ruptured as a result of incentive schemes offered (0.696), incentive schemes create a manipulative effect on workers (0.649), incentive schemes often lead to unhealthy competition among workers (0.729), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.691), incentive schemes undermine the interest of workers (0.639), incentive schemes cause fight among workers (0.535), incentive schemes often lead to reduction in the quality of work (0.533), and the study-based selection of incentive schemes at the 0.01 level of confidence. The result revealed the study-based selection of incentive schemes cause incentive schemes to manifest the following characteristics- 'workers earnings are not restricted as far as possible, the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its calculation, incentive schemes guarantee extra pay that is consistent with extra effort'. However, incentive

schemes were perceived by respondents to exhibit the direct opposite of the following characteristics upon the study-based selection of incentive schemes - relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among workers, incentive schemes often lead to reduction in the quality of work.

The result in column 4 of Table 3 shows that there is a strong positive correlation between variables- workers earnings are not restricted as far as possible (0.594), the schemes are clear, well understood and easily calculable by all workers (0.681), the schemes are fair in its determination (0.678), incentive schemes guarantee extra pay that is consistent with extra effort (0.652) and the selection of incentive schemes by performance measurement at the 0.01 level of confidence while a strong negative correlation exists between variables- relationship among workers is ruptured as a result of incentive schemes offered (0.609), incentive schemes create a manipulative effect on workers (0.624), incentive schemes often lead to unhealthy competition among workers (0.629), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.716), incentive schemes undermine the interest of workers (0.674), incentive schemes cause fight among workers (0.682), incentive schemes often lead to reduction in the quality of work (0.659), and the selection of incentive schemes by performance measurement at the 0.01 level of confidence.

The result revealed that incentive schemes manifest following characteristics- 'workers earnings are not restricted as far as possible, the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its calculation, incentive schemes guarantee extra pay that is consistent with extra effort', when selected by performance measurement. Also incentive schemes were perceived by respondents to exhibit the direct opposite of the following characteristics upon selection schemes by performance measurement - relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among workers, incentive schemes often lead to reduction in the quality of work.

The result in column 5 of Table 3 shows that there is a strong positive correlation between variables- incentive schemes create a manipulative effect on

workers (0.310), incentive schemes often lead to unhealthy competition among workers (0.252), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.193), incentive schemes often results in reduction in labour cost (0.211), and the selection of incentive schemes by large group measure at the 0.01 level of confidence.

The result revealed that incentive schemes manifest majorly the following characteristics: 'incentive schemes create a manipulative effect on worker, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes often results in reduction in labour cost', when selected by large group measure.

The result in column 6 of Table 3 shows that there is a strong positive correlation between variables- workers earnings are not restricted as far as possible (0.382), the schemes are clear, well understood and easily calculable by all workers (0.351), the schemes are fair in its determination (0.395), incentive schemes guarantee extra pay that is consistent with extra effort (0.326) and the selection of incentive schemes by broad financial measure at the 0.01 level of confidence; while a strong negative correlation exists between variables- relationship among workers is ruptured as a result of incentive schemes offered (0.359), incentive schemes create a manipulative effect on workers (0.297), incentive schemes often lead to unhealthy competition among workers (0.629), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.353), incentive schemes undermine the interest of workers (0.381), incentive schemes cause fight among workers (0.340), incentive schemes often lead to reduction in the quality of work (0.374), and the selection of incentive schemes by broad financial measure at the 0.01 level of confidence.

The result revealed that incentive schemes manifest following characteristics- 'workers earnings are not restricted as far as possible, the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its determination, incentive schemes guarantee extra pay that is consistent with extra effort' when selected by broad financial measure. However, incentive schemes were perceived by respondents to exhibit the direct opposite of the following characteristics upon selection schemes by broad financial measure - relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among worker, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among workers, incentive schemes often lead to reduction in the quality of work

The result in column 7 of Table 3 shows that there is a strong positive correlation between variables- relationship among workers is ruptured as a result of incentive schemes offered (0.555), incentive schemes create a manipulative effect on workers (0.614), incentive schemes often lead to unhealthy competition among workers (0.665), incentive schemes cause workers to avoid risk taking or exploration of possibilities (0.609), incentive schemes undermine the interest of workers (0.573), incentive schemes cause fight among workers (0.606), incentive schemes often lead to reduction in the quality of work (0.621), incentive schemes pose difficulty in the introduction of improved methods, better tools and machines (0.249) and the selection of incentive schemes by discretion at 0.01 and 0.05 levels of confidence, while a strong negative correlation exists between variables - workers earnings are not restricted as far as possible (0.479), schemes take the safety of workers into consideration (0.248), the schemes are clear, well understood and easily calculable by all workers (0.645), the schemes are fair in its determination (0.643), incentive schemes guarantee extra pay that is consistent with extra effort (0.676), between and the selection of incentive schemes by discretion at 0.01 and 0.05 levels of confidence.

The result revealed that incentive schemes manifest following characteristics- relationship among workers is ruptured as a result of incentive schemes offered, incentive schemes create a manipulative effect on workers, incentive schemes often lead to unhealthy competition among workers, incentive schemes cause workers to avoid risk taking or exploration of possibilities, incentive schemes undermine the interest of workers, incentive schemes cause fight among workers, incentive schemes often lead to reduction in the quality of work, when selected by discretion. However, incentive schemes were perceived by respondents to exhibit the direct opposite of the following characteristics upon selection schemes by discretion: workers earnings are not restricted as far as possible, schemes take the safety of workers into consideration, the schemes are clear, well understood and easily calculable by all workers, the schemes are fair in its determination, incentive schemes guarantee extra pay that is consistent with extra effort.



*Correlation analysis between the methods of selecting incentive schemes and the characteristics manifested by the incentive schemes*

	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>
X <sub>1</sub>	0.659**	0.783**	-0.696**	-0.609**	0.126	-0.359**	0.555**
X <sub>2</sub>	0.705**	0.658**	-0.649**	-0.624**	0.310**	-0.297**	0.614**
X <sub>3</sub>	0.735**	0.754**	-0.729**	-0.629**	0.252**	-0.482**	0.665**
X <sub>4</sub>	0.676**	0.779**	-0.691**	-0.716**	0.193*	-0.353**	0.609**
X <sub>5</sub>	0.680**	0.765**	-0.639**	-0.674**	0.136	-0.381**	0.573**
X <sub>6</sub>	0.716**	0.589**	-0.535**	-0.682**	0.091	-0.340**	0.606**
X <sub>7</sub>	0.543**	0.640**	-0.533**	-0.659**	0.092	-0.374**	0.621**
X <sub>8</sub>	-0.94	-0.240*	-0.017	-0.040	0.110	-0.003	0.249*
X <sub>9</sub>	-0.622**	-0.687**	0.535**	0.594**	-0.098	0.382**	-0.479**
X <sub>10</sub>	-0.143	0.102	0.025	0.080	0.211*	0.102	-0.046
X <sub>11</sub>	-0.144	0.105	0.079	0.180	-0.017	0.040	-0.248*
X <sub>12</sub>	0.73	0.061	-0.102	0.060	0.180	-0.013	0.005
X <sub>13</sub>	-0.690**	-0.814**	0.706**	0.681**	-0.154	0.351**	-0.645**
X <sub>14</sub>	-0.768**	-0.834**	0.717**	0.678**	-0.173	0.395**	-0.643**
X <sub>15</sub>	-0.666**	-0.627**	0.545**	0.652**	-0.127	0.326**	-0.676**

Where: Y1- Selection by subjective performance measure, Y2- Selection by tradition, Y3 -Study based selection of incentive scheme, Y4 - Selection of incentive scheme based on performance measurement, Y5 - Selection based on large group measures, Y6 - Selection based on broad financial measure, Y7 -Selection of incentive schemes by discretion and; X1- Relationship among workers is ruptured as a result of incentive schemes offered, X2 - Incentive scheme creates a manipulative effect on workers, X3- Incentive schemes often lead to unhealthy competition among workers, X4- Incentive schemes cause workers to avoid risk taking or exploration of possibilities, X5- Incentive schemes undermine the interest of workers, X6-Incentive schemes cause to fight among workers, X7-Incentive schemes often lead to reduction in the quality of work, X8- Incentive schemes pose difficulty in the introduction of improved methods, better tools and machines, X9- Worker earnings are not restricted as far as possible X10- Incentive schemes often results in reduction in labour costs, X11- Incentive schemes take the safety of workers into consideration, X12- Incentive schemes stimulate workers to put in extra effort, X13-The schemes are clear, well understood and easily calculable by all workers, X14-The schemes are fair in its determination, X15.- Incentive schemes guarantee extra pay that is consistent with extra effort.

## V. CONCLUSION AND RECOMMENDATION

This study concludes that the most frequently used methods for selecting incentive schemes by construction firms were selection by tradition, selection based on performance measurement, and selection by discretion. Findings from this study have also proven that incentive schemes manifest certain traits after their selection through various methods.

On the one hand, upon the selection of incentive schemes by tradition, schemes were perceived to rupture the relationship among workers, create a manipulative effect on workers, generate unhealthy competition among workers, result to fight among workers, cause workers to avoid risk taking or exploration of possibilities, undermine the interest of workers, lead to reduction in the quality of work, and restrict workers' earning among others. Similarly, upon the selection of incentive schemes by discretion, schemes were also perceived to rupture the relationship among workers, generate unhealthy competition among workers, cause workers to avoid risk taking or exploration of possibilities, cause fight, lead to reduction in the quality, pose difficulty in the introduction of improved methods, better tools and machines among others.

On the other hand, upon the study-based selection of incentive schemes, incentive schemes did not restrict workers earnings; schemes were perceived by workers to be clear, well understood and easily calculable; relationship among workers was unaffected; workers did not feel manipulated; unhealthy competition was not generated and quality of work was unaffected. Similarly, upon selection of incentive schemes based on performance measurement, incentive schemes were perceived not to restrict workers earnings; schemes were perceived by workers to be clear, well understood and easily calculable; schemes were considered by workers as fair in its determination; extra pay consistent with extra effort was guaranteed; relationship among workers was not affected, workers did not feel manipulated and the quality of work was not affected.

Based on the characteristics manifested by incentive schemes upon their selection, the study therefore recommends the use of the study-based selection and the selection based on performance measurement for incentive schemes used in the construction industry. The selection of incentive schemes through these methods will serve as a check against trial and error practices in the use of incentive schemes in the construction industry as a whole.

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