COMPARATIVE ANALYSIS OF INCENTIVES PROVISION IN FOREIGN AND INDIGENOUS FIRM AND ITS IMPACT ON PRODUCTIVITY

Owolabi James D[1], Amusan M[2]. Lekan, Oluranti Olupolola.O[3]

1&2 Department of Building Technology, College of Science and Technology, Covenant University. 3 Departmment of Building University of Lagos.

ABSTRACT

This paper presents the comparative analysis of means of enhancing productivity among construction workers with emphasis on financial and non financial incentives.

The data were collected from respondent on 15 construction sites, which form nucleus of a stratified population chosen for the research. The questionnaire was designed using Likert rating scale on scale 1 to 4 and seventy questionnaire distributed, while the data were analyzed with the aid of mean item score, spearman correlation coefficient method, cross tabulation analysis was conducted on the incentives and work variables to determine relationship pattern. Also, Chi square analysis and product moment correlation was carried out to validate the existing relationship between incentives and productivity index. This study presents systematic approach through which available means of enhancing workers motivation in construction firms could be identified from the perspective of incentives with particular bias for financial and non-financial incentives. The study concluded with financial incentives like transport allowance, hospital allowance, cash awards, overtime-with-pay and accident insurance being found prevalent in the foreign firms while less of these are engaged at indigenous firms. Availability of Luncheon voucher, transport allowance and vehicle loan that are of financial incentive cadre was recorded at foreign firms relative to transport allowance, overtime-with-pay and piece-rate among indigenous firms. Certain of the non-financial incentives could however be combined to reinforce the effect of financial based incentives, this tends to nullify the dis-satisfier factors that impedes productivity. To this end however, non-financial incentives the likes of: social security, conducive, accident free work environment, involvement in decision making and prompt payment of wages could be a potential high productivity inducer, if well administered and managed. This was based on the respondent's preference for the administration of non-financial incentives. The presence of these as garnered from the respondent's response accounts for the wide margin between foreign firms and indigenous firm's productivity.

Keywords: compare, analysis, incentives, foreign, indigenous, firm, impact, Productivity.

1.0 REVIEW OF PAST WORKS

Productivity could be considered as a relationship between output and input also could be expressed as the ratio of output to input. Productivity has been defined from different perspective, Kaming (1997), Robert (1972) and Owolana (1997), approached defining productivity from resources flow perspective, that productivity is the relationship between inflow relative to outflow of resources. Gilson et al., (2004), Rebecca et al., (2000) and Fagbenle et al., (2004), posited that high productivity is a goal that an organization that desire long-term survival should pursue, thus companies in Nigeria are currently applying various incentives schemes to motivate their employee in order to gear them towards high productivity through applying financial or non-financial incentive scheme. In a bid to survive in the global economy companies carries their campaign to rural area through establishing of service outlets,

employee of such an organization or company must be highly motivated through application of financial and non-financial incentive to be able to elicit high productivity from such ventures Dieleman et al., (2003).

Futhermore, certain category of employee deserves motivation as regards the nature of their task Dieleman et al., (2003) in Financial and non-financial incentive: identifying factors for job motivation of rural health workers in North Vietnam, what incentives motivate health workers in rural parts of Vietnam? Recorded that, a prerequisite of a well-functioning health system is a well-motivated workforce and that both financial and non-financial incentive scheme could be used. However, general school of thought classified incentives into three broad categories: Financial, semi-financial and non-financial incentives.

Financial, semi-financial and non-financial incentive schemes that could be used, according to McCaffer and Harris (2005) in Workforce motivation includes: sharing, day-work, piece-work in financial incentives category while the non-financial incentives includes: improved working conditions, salary increase, relationship with superior, good company policy, all these motivates worker unto higher productivity. The semi-financial incentives on the other hand, as stated by Kelly 2007, McCaffer (2005), Amusan (2000), Majid et al., (1996), Wahab (1992) and Robert (1972) are categorized as follows: pension scheme, holidays-with-pay, restaurant facilities, telephone bills, expense account, sport facilities, company cars, good basic salaries and career promotion prospects for employee. Reinforcing this line of though Olomolaiye et al., (1988), Ogunlana et al., (1991) and Amusan (2000) presented the perception of operatives on non-financial factors of incentives as having demotivating effect on job satisfaction; the factors such as: little production, poor supervision, unsafe working conditions, lack of participation in decision making, under-utilization of skills, poor communication with management, incompetent crew colleagues, reducing work opportunities, productivity urged with indifference, lack of recognition of good effort and poor treatment by supervisor.

However, success in application of work incentives aimed at generating higher levels of performance and production output will largely depend on establishing a careful balance of the many interrelated motivation factors necessary in achieving workers satisfaction (Walter et al., 1974, Talbot 1976 and Fagbenle et al., 2004). To this end therefore, the study tend to discover intrinsic facts that hamper productivity taking a holistic approach to the subject matter.

TABLE 1 AVAILABILITY OF FINANCIAL INCENTIVES OF FOREIGN CONTRACTING FIRM

	FINANCIAL INCENTIVES	OFFERED	%	NOT OFFERED	%
I	Cash award	8	72.73	3	27.27
II	Leave allowance	8	72.73	3	27.27
III	Luncheon	11	100	0	0
IV	End of years bonus	8	72.73	3	27.27
V	Transport allowance	11	100	0	0
VI	Housing allowance	4	36.36	7	63.64
VII	Holiday with pay	10	90.91	1	9.09

VIII	Over time with pay	4	36.36	7	63.64
IX	Vehicle loan	11	100	0	0
X	Gratuity/Retirement award	5	45.45	6	54.45
XI	Accident insurance	6	54.45	5	45.45
XII	Piece rates	6	54.45	5	45.45
XIII	Hospital allowance	0	0	1	9.09
XIV	Tools allowance	0	0	11	100
XV	Long service award	11	100	0	00
XVI	Transfer allowance	5	45.45	6	54.45

Table 1 gives the breakdown of financial incentives as they were made available in the firms. Most of the incentives in the foreign firms are not in the indigenous firm. In indigenous firms, leave allowance, luncheon voucher, gratuity/retirement award and long service award.

TABLE 2 AVAILABILITY OF NON-FINANCIAL INCENTIVES IN FOREIGN CONTRACTING FIRMS.

S/N	NON-FINANCIAL INCENTIVES	OFFERED	%	NOT OFFERED	%
I	Education training	11	100	0	0
II	Sports facilities	11	100	0	0
III	Social securities	8	72.73	3	27.27
IV	Finish and go	2	18.18	9	81.82
V	Prompt payment of wages	10	90.90	0	0
VI	Involvement in decision making	6	54.55	5	45.45
VII	Conducive work environment	7	63.64	4	36.36
VIII	Allow participation in professional conferences	6	54.55	5	45.45
IX	Good equipment	11	100	0	0
X	Sufficient break	11	100	0	0

XI	Adequate safety aids	10	90	1	9.09

Tables 1 and 2 presented the availability of non-financial incentives in both local and foreign firms; analysis shows that 'finish and go' is not offered at all in foreign firms. So also they are not allowed to participate in professional conferences while in the indigenous contracting firm's incentives like sports facilities, involvement in decision making, allowing participation in professional conferences are not offered at all. So also little education facilities, social security provision is available. Most significant is the provision of sport facilities. This is evident in the formation of football club bearing the name of some of the foreign contracting firms. This end to create a relaxation atmosphere for the workers from the tension associated with the nature of construction works.

TABLE 3 AVAILABILITY OF NON-FINANCIAL INCENTIVES OF INDIGENOUS CONTRACTING FIRMS.

S/N	FINANCIAL INCENTIVES	OFFERED	%	NOT OFFERED	%
I	Education training	2	20	8	80
II	Sports facilities	-	0	10	100
III	Social securities	2	20	8	80
IV	Finish and go	8	80	2	20
V	Prompt payment of wages	10	100	0	0
VI	Involvement in decision making	-	0	10	100
VII	Conducive work environment	8	80	2	20
VIII	Allow participation in professional conferences	-	0	10	100
IX	Good equipment	4	40	6	60
X	Sufficient break	9	90	1	10
XI	Adequate safety aids	4	40	6	60

It was discovered from the findings that indigenous contractors provide lesser aids compared with their foreign counterparts. Tables 2 and 3 signifies that safety is recognized more in the Foreign firms 90% than in the indigenous contracting firms' sites 60% comparison. It was discovered that level of safety provision made by these companies differs from one site to another. Thus it could be inferred, that, the safety aids provision is not engineered out of sheer concern of the management for the workers but in compliance with client's instruction. This is evident in the fact that when request is made of safety aid by the employee, they are not met, and only the foreign firms are able to provide these incentives as observed. However, workers of the sampled companies as presented in the Table 4, indicate their preference for financial incentives by preferring cash award incentive above other types. End of the year bonus, transport allowance, accident insurance, hospital allowance, leave allowance and accident

insurance were rated high. The implication of this results is that, workers expect the management to provide the incentives and this might likely enhance their productivity. Careful observation of the preferred form of incentives reveals that they are all cash- based; therefore management making the incentives cash-based will ensure enhanced productivity. Dieleman et al., (2003) submitted that financial based incentives and non-financial incentives should be admitted to complement one another. Veracity of the financial incentives has been established. Interestingly, the non-financial incentives co-exist with financial incentives, some of the available incentives is presented in Table 5, Social securities is ranked first, Conducive work environment and involvement in decision making ranked first.

TABLE 4 PREFERENCE OF WORKERS FOR FINANCIAL INCENTIVES

S/N	FINANCIAL INCENTIVES	V.I	N.I	I	S.I	IMP Index	RANKING
I	Cash award	11	0	8	2	0.86	1
II	Leave allowance	11	0	7	3	0.81	4
III	Luncheon voucher	10	3	5	3	0.76	6
IV	End of years bonus	11	0	7	3	0.84	2
V	Transport allowance	11	0	8	4	0.82	3
VI	Housing allowance	9	0	8	5	0.74	8
VII	Holiday with pay	10	3	5	4	0.73	10
VIII	Overtime with pay	12	0	6	4	0.79	6
IX	Vehicle loan	8	5	6	3	0.72	11
X	Gratuity/Retirement award	8	6	5	3	0.71	10
XI	Accident insurance	11	0	8	3	0.81	4
XII	Piece rates	10	3	4	4	0.74	9
XIII	Hospital allowance	5	6	5	5	0.76	6
XIV	Tools allowance	5	6	5	5	0.63	12
XV	Long service award	4	2	7	8	0.54	13
XVI	Transfer allowance	7	4	6	4	0.69	11

Legend: V.I- Very Important I- Important N.I – Not Important S.I- Strongly Important

TABLE 5 PREFERENCES OF WORKERS FOR NON-FINANCIAL INCENTIVES

	NON-FINANCIAL INCENTIVES	V.I	N.I	I	S.I	IMP	RANKING
I	Education training	10	0	9	2	0.71	8
II	Sports facilities	11	6	7	3	0.73	4
III	Social securities	8	5	6	3	0.77	1
IV	Finish and go	11	6	8	3	0.72	6
V	Prompt payment of wages	12	0	6	4	0.73	4
VI	Involvement in decision making	10	3	5	3	0.74	2
VII	Conducive work environment	11	0	8	2	0.74	2
VIII	Allow participation in professional conferences	4	3	6	9	0.52	11
IX	Good equipment	10	3	4	5	0.71	8
X	Sufficient break	11	0	8	3	0.72	6
XI	Adequate safety aids	7	4	6	4	0.72	10
	TOTAL	105		73	41		

Legend: V.I- Very Important I- Important N.I – Not Important S.I- Strongly Important

TABLE 6 INCENTIVES AND THEIR IMPACT ON PRODUCTIVITY

Incentives	Work Description	Average Quantity of Work [i]	Average Estimated Completion Time(days) [ii]	Average Actual Completion Time(days) [iii]	Average Skilled Labour [iv]	Average Unskilled Labour [v]	Productivity Index [vi] {[iii]/[ii]} 100
Protective Device	Excavation	397m^3	20	25	1	6	125
Transport allowance	Block work	2050m^2	24	30	6	7	125
Bonus and Reward	Concrete work	300m^3	3	6	4	7	200
Effort Reward	Plastering	400m^2	5	9	4	8	180
Free Medical Service	Painting	1100m^2	10	18	8	10	180

Evaluating the impact of incentives on productivity is as worthwhile as its identification. Incentives that are peculiar to certain work as identified on sites are scheduled in Table 6. The work analyzed includes: Painting work, Plastering work, Concrete work, Block work and Excavation. Five companies were selected for sampling, an average of the parameters for consideration was determined for all of them. The parameters include scheduled operation time, actual completion time, average skilled labour and average unskilled labour. Productivity index was determined for the operations using average percentage of scheduled completion time and average actual completion time. Concrete work has the highest productivity index, followed with plastering and painting with excavation work having the least productivity index.

However, the productivity indexes were matched with incentives introduced as peculiar to each operation, it was discovered that bonus aid was introduced as an incentive for concrete work this is suspected as having responsible for high productivity index of 200 obtained on the sites, effort reward and free medical services were introduced on plastering and painting works, this produced productivity index of 180, while transport allowance and provision of personal protective device on block work and excavation respectively induced productivity index of 125. Further regression analysis was carried out on the variables relationship as indicated in Tables 7 and 8, incentives and corresponding output were mapped unto one another. Chi-square value of 0.78 and corresponding output value was obtained on incentives and output respectively at 3-degree of freedom at 95% confidence interval. The implication of these results is that there is a strong direct relationship between incentives and output and the incentives introduction could be linked to the nature of productivity index obtained.

TABLE 7 REGRESSION ANALYSIS OF INCENTIVES AND OUTPUT CROSSRELATIONSHIP

Test Parameter	Incentives Available	Corresponding Output
Chi-Square	0.78	0.85
Df	3	4
Asymptotic Significance	0.896	1.000
Confidence Interval 95%		

TABLE 8 CORRELATION ANALYSIS OF WORK VARIABLES AND PRODUCTIVITY INDEX

		Average Quantity of Works	Average Completion Time	Average Actual Time	Average Skilled Labour	Average Skilled Labour	Productivity Index
Average Quantity of Works	Pearson Correlation	1					
	Sig. (2-tailed)						
Excavation		0.913	0.913	0.913	0.894	0.894	0.664
Average Completion Time	Pearson Correlation	.747	1				
	Sig. (2-tailed)	.088					
Block Work		0.913	0.913	0.913	0.913	0.940	0.866
Average Actual Time	Pearson Correlation	.788	.983**	1			
	Sig. (2-tailed)	.063	.000				
Concrete Work		0.913	0.913	0.913	0.913	0.894	0.866
Average Skilled Labour	Pearson Correlation	.714	.264	.412	1		
	Sig. (2-tailed)	.111	.613	.417			
Plastering		0.894	0.913	0.913	0.894	0.894	0.894
Average Unskilled Labour	Pearson Correlation	.483	.343	.491	.835*	1	*
	Sig. (2-tailed)	.332	.505	.322	.039		
Painting		0.894	0.894	0.894	0.894	0.845	0.874
Productivity Index	Pearson Correlation	.228	.121	.248	.667	.917**	1
	Sig. (2-tailed)	.664	.819	.635	.148	.010	
		0.894	0.866	0.866	0.876	0.874	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

2.0 CONCLUSION

With reference to the outcome of analysis in this work, it has been established that incentives has direct impact on work output and completion time. The incentives tend to produce a satisfying effect on the workers. Certain financial incentives are highly desired by the workers, such as: cash bonus, transport allowance, bonus and reward equipment and tool allowance, social incentives, free medical services, luncheon vouchers, conducive work environment, involvement in decision making among others. Security is important on any job, therefore non-financial incentives like social security like life insurance policy, accident insurance policy are as well highly desired, this tend to stimulate workers onto high productivity. Therefore it is highly advocated in this work that the financial incentives should be encouraged on workers while the non-financial incentives could be used as reinforcement on the financial incentives, this is necessary for an increased productivity as demonstrated in this work.

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