Effects of Employees' Welfare Packages on Workers' Productivity on Construction Sites in Ebonyi State

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Abstract
This study assessed the effects of employees' welfare packages on workers' productivity on construction sites in Ebonyi State, with a view to suggesting areas of improvement. A quantitative research approach was adopted involving administering 385 well-structured questionnaires to both management and operatives in construction organisations in Ebonyi State. The quantitative strand was analysed using mean score, percentiles, Spearman correlation, and linear regression, using Microsoft Excel, and Scientific Package for Social Science (SPSS) 21. The results showed that the most welfare packages having effects on construction workers productivity are canteen, tools and equipment, site accommodation, temporary stores, site security, and wages. The results revealed that both human resources management practices and welfare packages have a positive and statistically significant relationship with construction workers productivity, with a p-value of <.009 and .000 respectively. Hence, measures such as adequacy of wages, sound work environment, job security factor, safety and health factor, employees training, etc, are the significant measures for effective measures for improving construction workers productivity based on the 3.50 benchmark, mean score and significant (p-value). This indicates that adequate and appropriate utilisation of human resources management practices will increase project delivery success. Therefore, in order to overcome challenges of delay resulting from shortage of workforce and project abandonment, project managers and stakeholders in the construction industry should adapt the best welfare packages as a measure to motivate workers on sites in order to increase productivity thereby leading to overall project delivery success.

Keywords: *Welfare packages, Human resource management, Construction, Workers' productivity, Nigeria*

INTRODUCTION

The construction industry in any economy worldwide exhibits virtually the same characteristics in varying degrees. The construction industry is perhaps one of the largest employers of labour among the other sectors (Ihedigbo & Jimoh, 2022). The construction industry is the second largest contributor to the Gross Domestic Product after the agricultural sector (Folorunso, Udeh & Adeniran, 2024). The construction workers constitute one of the largest categories of workers in the unorganised sector (Simi & Chandrasekar, 2020). This implies that the construction industry account for a significant role in the economic growth of any nation.

According to the National Bureau of Statistics, the Nigeria construction industry contributed 10.17% to Nigeria nominal gross domestic product (GDP) in the first quarter of 2021, higher than the 7.94% it contributed a year earlier and the 8.40% contributed in the fourth quarter of 2020 (Ihedigbo & Jimoh, 2022). In the present fast changing work environment, workers are the most important asset to any organisation. Furthermore, despite the technological advancement, the role

of human resources cannot be under-estimated in any work environment (Emmah & Teresa, 2022). Hence the social progress and performance of any organisation depends on the efficiency of its human resources. According to Ihedigbo (2023), the welfare of employees is a fundamental aspect of human resource management (HRM) as it is vital to influencing commitment to the actualization of goal in both private and public service organisations. In the developed and developing countries, many organisations have the habits of using the concept or an idea of employee welfare packages as a means or mechanism for the improvement of worker's productivity (Chihongaki, 2019).

Productivity is the measure of the ability to produce a service. More specifically, productivity measures how specified resources are managed to accomplish timely objectives as stated in quantity and quality. Productivity may also be regarded as the index to measure output (services) relative to the input: labour, materials, and energy used to produce the output (Olughu, Okolie & Ihedigbo, 2022). Overall, there is a lack of an effective and best way to assess productivity. According to Sharma and Sharma (2014) employee productivity is based on the amount of time employees are physically present at their job, besides the extent to which they are "mentally present" or efficiently working during the presence at the job.

Organisations should address such issues in order to ensure high worker productivity. However, it should be noted from the perspective of the construction industry, productivity happens to be a significant aspect that may be used as an index for project production efficiency. Productivity is the correlation between output produced by a system and the qualities of input factors utilized by the system to yield output (Olughu *etal*., 2022). The difference between productivity and labour productivity is that while productivity stresses correlation between input and output, labour productivity emphasises result of input.

The practice of using labour, especially direct labour inputs and costs can be ascertained and quantified more easily than those of other factors, and partly due to a legacy of classical economics thought which not only tends to regard direct labour as the sole source of value but also tends to regard all forms of indirect labour as "unproductive labour". Therefore, it can be said that for productivity to be increased then labour needs to be improved. There are many ways by which this can be carried out. These include: Improvement in worker's skills, availability of resources, conducive environment and provision of other general welfare packages (Ihedigbo, Olughu, Bello & Olonade, 2023).

Manzini and Gwandure (2011) asserted that the concept of employee welfare has been used by many organisations as strategy of improving productivity of employees; especially in the industry since work related problems can lead to poor quality of life for employees and a decline in performance. It is argued that, welfare services can be used to secure the labour force by providing proper human conditions of work and living through minimizing the hazardous effect on the life of the workers and their family members.

Rajkuar (2014) revealed that the welfare facilities help to motivate and retain employees. Most of the welfare facilities helped to motivate the employees which ensures employee satisfaction and resulted in increased productivity. Thus, the study is to assess the effects of human resources management practices on construction workers productivity in Ebonyi State. Consequently, effort will be made in this study to highlight how welfare programmes can help to improve construction worker's productivity. The construction industry offers a great variety of career opportunities. People with different talents and educational backgrounds such as managers, skilled workers, semi-skilled workers, clerical workers, and labourers find job opportunities in the construction industry. And their productivity levels can be assessed differently/categorically.

Adequate employee welfare packages may represent one useful indicator of effectiveness of any organisation, as it can improve performance and turnover thereby resulting to productivity. Thus, the study is to assess the effects of human resources management practices on worker's productivity, particularly employee welfare packages on the productivity of construction workers in Ebonyi State in order to improve the productivity output and overall performance of the industry. This study assessed the effects of employees' welfare packages on workers' productivity on construction sites in Ebonyi State, with a view to suggesting areas of improvement. The targeted Population for the study is the construction workers in some selected construction firms. The research work will be limited to Ebonyi State, Nigeria. This was chosen because in this period under review, the state has witnessed a lot of infrastructural development, therefore the need to assess the level of compliance to standard human resource management practices (employee's welfare packages) by the construction workers in the state.

LITERATURE REVIEW

Effect of Welfare Packages on Construction Workers Productivity

Intrinsic rewards stem from rewards that are inherent in the job and which the individual enjoys as a result of successfully completing the task or attaining his goals. While extrinsic rewards are those that are external to the task of the job, such a pay, work condition, fringe benefits, security, promotion, contract of service, the work environment and condition of work.

Good remuneration has been found over the years to be one of the policies the organisation can adopt to increase their worker's performance and thereby increase the organisations productivity. With the present global economic trend, most employers of labour have realized the fact for their organisation to compete favourably, the performance of their employees goes a long way in determining the success of the organisation. On the other hand, performance of employee, in an organisation is vital not only for the growth of the organisation but also for the growth of individual employee (Ufoaroh, *et al*., 2019).

An organisation must know its outstanding workers, those who need additional training and those not contributing to the efficiency and welfare of the company or organisation. Performance on the job can be assessed at all levels of employment, such as: personal decision relating to promotion, job rotation, job enrichment etc. And in some ways, such assessment is based on objective and systematic criteria, which includes factors relevant to the person's ability to perform on the job. Hence the overall purpose of performance evaluation is to provide an accurate measure of how well a person is performing the task or job a signed to him or her. Based on this information, decision will be made affecting the future of the individual employee.

Therefore, a careful evaluation of employee's performance can uncover weaknesses or deficiencies in a specific job skill, knowledge or area where motivation lacking. Once identified, these deficiencies many be remedied through additional training or the provision of the needed rewards. The view that specific reward will encourage 'increase in production, has not always be substituted, even though management has often attempted to spur production by such offerings and has often attributed production increase to them (Ufoaroh, *et al*., 2019).

Empirical Studies

Gyamfi *et al*. (2021) Examining the Impact of Welfare Facilities on Building Construction Employee's Performance in the Eastern Region of Ghana. The study revealed that all the six categories of welfare facilities (Changing Rooms and Lockers; Canteen; Drinking Water; Sanitary and Toilet; Washing; and Rest facilities) responded by the workers had the mean value below

theoretical mean of 3.0 from 5-point Likert scale, indicating that workers were not satisfied with welfare facilities provided at their various construction site within the Eastern Region of Ghana. The major rank variable was changing rooms and lockers facilities with mean value of 2.6875, followed by Canteen facilities with mean value of 2.5375.

Aslpoor and Amirnejad (2016) conducted the study regarding the effect of employees' welfare on job performance of staff at the Islamic Azad University. Data were analysed using SPSS and LISREL software. The key variables were medical and insurance facility, transportation facility and housing facility. The study findings revealed that, staff welfare facilities and its dimensions have significant positive effects on job performance. The study recommends on the care and control of the implementation of welfare programs in terms of objectives, identification of possible deviations and suggesting modification.

Musyoka (2015) conducted the study on the effect of staff welfare programs on satisfaction of employee among commercial banks. The study used descriptive research survey design. The study findings unveiled that, the relationship between worker compensation and employee satisfaction was statistically significant. Annual leave, family leave, child care program, sick leave, relocation benefits, transport benefits, education fees benefits, and financial assistance were all significant components of worker compensation that enhanced the relationship with employee satisfaction. Recommendation for improvement at on worker compensation includes enhancing banks' ability to ensure that every employee goes for annual leave and is entitled to full pay during the leave. Recommendation for training and development includes enhancing on job training, team work, and job rotation to enhance employee satisfaction. On safety and health, the study recommends that commercial banks should develop health and safety measures that will guarantee employee satisfaction.

Another study was conducted by Manandhar (2015) on the impact of welfare facilities on the performance of employees in NGOs. The study used case study design while content analysis was used to analyse data. It was revealed that, welfare facilities provided to employees at Kenya Red Cross Society clearly shows the positive impact in the performance of its employees. Kenya Red Cross Society's objectives regarding employee's welfare are to improved livelihoods, increase contribution to national policy, enhance community ownership and to increase access to services. The study recommends that, when an organisation applies for its own long term and short term it's should also look after the individual objectives. Organization can achieve its objectives only when its employees are happy and committed to their work. Employees can focus on their job only when they are stress free for these welfare facilities plays an important role in every organisation.

Lagat (2014) conducted the study on the importance of employee welfare and performance at Egerton University. Cross-sectional survey was used in this study. According to the research findings, it was unveiled that, Universities' Academic Staff Union (UASU) had different but positive impacts on the variables affecting employee welfare and, consequently, employee performance. In descending order of importance, maternity, pension, housing and medical schemes were some of the benefits from the activities of the UASU. However, availability of recreational facilities received least attention from the UASU. The UASU should, therefore, be maintained and strengthened to further improve on quality delivery of products and services in the University by its members.

Meanwhile, Waititu *et al.* (2017) carried out the study concerning the effect of welfare programs of employees to improve performance of workers at Railway Corporation. The study used descriptive survey research design while data were analysed qualitatively and quantitatively. The findings unveiled that; there are various aspects of welfare benefits that are used to improve the

performance of workers at work place. Among of these aspects are: health package, policies based on the salary and other benefits, training and development programs as mandatory program for employees so as to improve workers performance, referral schemes and succession plans. It was recommended that; all these welfare programs are needed to be provided adequately so as to improve the performance of workers at Railway Corporation.

Manumbu (2015) conducted the study on the impact of employee welfare services in an organisation performance at Mwananchi, Co. Ltd, Dar Es Salaam, Tanzania. The study employed case study design, whereby data were analysed qualitatively and quantitatively. It was revealed that, the study unveiled number of parameters which may be the result provision of employee welfare services to an employee such; increase of employee work morale, team working, quality service delivery, employee security, employee commitment, however the study revealed some challenges toward provision of employee welfare services, inadequate funds to organisation and unawareness of employee on the need of employee welfare services. The study concludes with summary on eligibility of employee welfare service to an employee, recommendation on how to improve employee welfare services, conclusion of the research study and lastly the study provides areas for further research area.

In Nigeria, Atseye, Takon and Ogar (2014) carried out a study on the effect of the national minimum wage on the socio-economic life of low-income workforces in Calabar Municipal Council Area of Cross River State. This was with the use of a random sample technique for the selection of 305 participants throughout all the government's ministries, departments, parastatals and agencies. The obtained data were analysed with mean statistics and hypotheses were tested with the utilization of Pearson Product Moment Correlation coefficient. The findings of the study therefore indicated insignificant impact of national minimum wage on poverty, employment, income stability, and saving of poor wage earners in the public sector.

Okerere and Daniel (2010) assessed staff welfare and productivity in Patani local government council, Delta State Nigeria. The study used survey research design. The study findings unveiled that; there is general awareness about staff welfare among the employees and ability to identify the elements of welfare. It was also revealed that, the employee welfare was absent in the council, in the same way, there was no attractive working environment that could motivate worker to do at his/her best interest, poor furniture, working facilities were not available adequately, the scarcity of monetary incentive package and facilities related to the health and safety were not reliable. These had resulted to the reduction of working morale among the employees. The study recommended that; more efforts should be taken into consideration so as to improve the capabilities of the employees in the work. That could be done by providing training and development program, improvement of working environment and other related aspects.

Similarly, Hendra and Rezki (2015) research on wages and employees' performance: the quality of work life as moderator made use of stratified random sampling technique for the determination of 100 participants in a manufacturing establishment. This was with the utilization of linear regression and moderated regression for the analysis of the study's obtained data. The result indicated significant and negative effect of workers' wages on the quality of work life in the studied area.

Idiaye and Okoruwa (2018) conducted a study on minimum wage policy and rural household welfare in Nigeria. This was to determine how urban sector wage inflexibilities such as the minimum wage policy can impact the rural economy and the households' welfare as the study developed or employed Computable General Equilibrium (CGE) model. The findings established

that in the long run, minimum wage policies do not lead to a better household's welfare, rather they are left aggravated.

Study Area

Ebonyi State has thirteen (13) Local Government Areas, which include Abakaliki, Afikpo North, Afikpo South, Ebonyi, Ezza North, Ezza South, Ikwo, Ishielu, Ivo, Izzi, Ohaozara, Ohaukwu, and Onicha. Ebonyi State has an estimated population of 2,176,947 based on the 2006 National Census and the inhabitants are spread across 5,935 square kilometres. The State is predominantly dominated by the Igbos with other minority ethnic groups from neighbouring States. With a land area of about 5,935 sq. km, Ebonyi State is popularly known as the "Salt of the Nation" apparently because of the large deposits of salt water in the State. The State shares a border with Benue State to the North, Enugu State to the West, Imo and Abia States to the South, and Cross River State to the East. Ebonyi State is situated in Nigeria, West Africa, with latitude 6' 15' 00" N and longitude 8' 05' 00" E**.**This study will be carried out in Ebonyi State, Nigeria as shown in Figures 1 and 2.

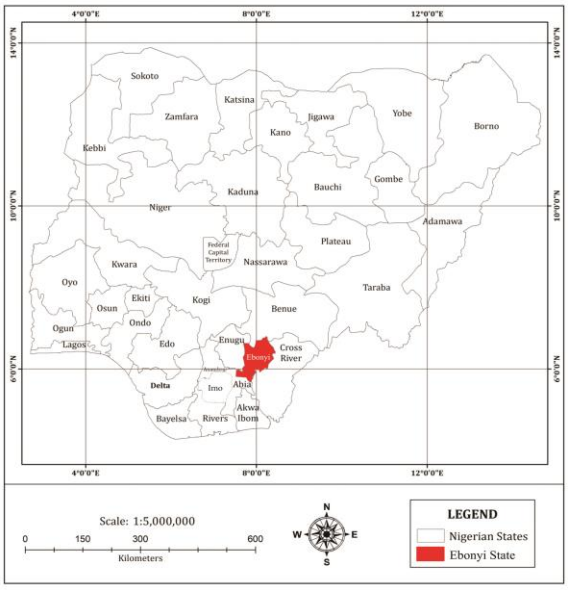

Figure1: Map of Nigeria showing Area of the Study (Ebonyi State).
Source: Office of the Surveyor General Ebonyi State, 2021

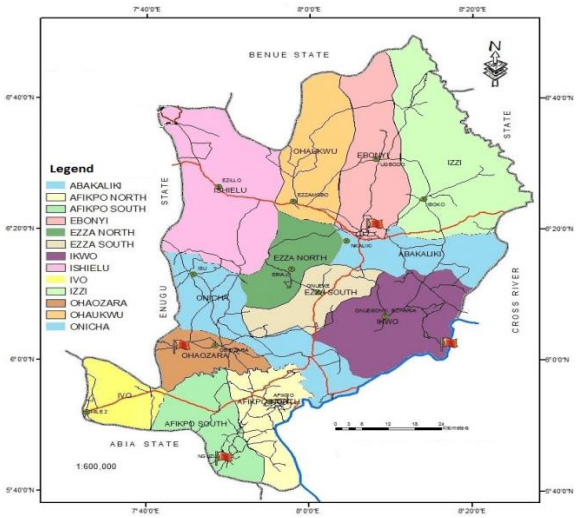

Figure 2: Map of Ebonyi State showing its Local Government Areas
Source: Office of the Surveyor General Ebonyi State (2021)

Research Population

A population is the whole group of individuals, events or objects having common evident features. A target population is that population to which a researcher wants to take a broad view of the results of a study (Coolican, 2013; Loice, 2016). According to Neuman (2014), a target population is the specified large group of many cases from which a researcher draws a sample and from which the results from the sample are generalized. It is critical for a researcher to define the population of his study at an early stage of research to know the nature of the sample drawn and to avoid questions about the population. The members of the sample are called as participants. Sample size is used to fairly represent the target population. It is said to be representative when the characteristics of elements selected are similar to that of entire target population. The more the sample is representative of the target population, the higher is the accuracy of the inferences and better are the results generalizable (Alvi, 2016). Hence, there are different formulae that can be used for the determination of appropriate sample sizes. The researchers should choose the formula according to their needs and convenience (Korir, 2020). Thus, a total of 400 comprising of both the management and the operatives in the selected twenty-two (22) construction firms in Ebonyi State were considered as the population for the study.

Sampling

The sample frame for the study is 400(120 for management staff and 280 for operatives) which was obtained from the list of selected twenty-two (22) construction firms in Ebonyi State. Sources from; Ebonyi State coordinator of builders in private and Ebonyi State ministry of capital city development authority. The size of the sample of respondents for the questionnaire survey that was targeted were obtained from the use of the sample size determination formula as developed by (Yamen, 2013). The formula is:

$$n = \frac{N}{1+N(e)^2} \qquad \text{Equation (1)}$$

Where n = sample size; N= target population; e = level of precision or sampling of error (commonly 0.10, 0.05, or 0.01).

Using this formula, where the total population of respondents is 400,

n = 400/1+400(0.01)^2

n = 385. Therefore, the sample size for this study is 385, which is maintaining a 96.25% confidence interval.

Purposive sampling technique was used in this study. The purposive were taken from the study area. Hence, the unit of analysis were the selected 22 construction firms in the study area, a total of 385 questionnaire survey were obtained from both the management and operatives in each of the selected twenty-two (22) firms.

Data Collection Instrument

The instrument employed for data collection was a structured questionnaire designed to answer the objectives of the research. Two different questionnaires were employed in this study, one for the management and another one for the operatives. The first section of the questionnaire dwelled on background information of the respondent; it served as information regarding the sector of work, highest educational level, years of experience, while the other sections dwelled on matters relating to the research study. This section was structured in relation to the objectives of the study and questions were asked on a 5-point Likert scale with 5 being the highest of the rating.A large number of questionnaires were self-administered to the various management and operatives' employees in the selected construction firms in Ebonyi State, Nigeria. Hence, the questionnaires were formulated according to the study objectives in a systematic procedure.

Method of Data Presentation and Analysis

Tables were employed in this research for data presentations. The analysis of the collected data was carried out using descriptive and inference statistics such as percentile, means, regression analysis and analysis of variance (ANOVA) using scientific package for social sciences (SPSS). Mean score, spearman correlation was adopted for the study.

RESULTS

A total of four hundred (400) questionnaires were distributed to both the management and operatives of the selected twenty-two construction firms in Ebonyi State which took part in the questionnaire survey. Out of the four hundred (400) distributed questionnaires, three hundred and eighty-five (385) were returned, making it 96.25% retrieved data for this analysis. Data obtained from the questionnaire are analysed in this section to discuss the results. The first part dwelled on the demographic information of the respondents and organisations, while the other parts were organised according to the study objectives.

Background of the respondents

Due to the nature of the study, certain skilled, informed construction and HR professionals with extensive experience at various management, supervisory, administrative and operative levels were required to reply to the questionnaires in order to obtain the data required to meet the study's objectives. The results for each of the six variables for management staff are presented in detail as shown in the Tables1a and 1b:

Table 1a: The Demographic Profiles of the Respondents

Management Staff	Frequency	Percentage	Cumulative
Highest academic qualification			
HND	38	14.3	31.7
BSC/B.TECH	40	15.1	65.0
PGD	13	4.9	75.8
MSC/M.TECH	25	9.4	96.7
PhD	4	1.5	100.0
Professional background			
Architecture	4	1.5	3.3
Building	104	39.2	90.0
Engineering	8	3.0	96.7
Quantity surveyors	4	1.5	100.0
Others			
Year of practices			
1-5yrs	30	11.3	25.0
6-10yrs	48	18.1	65.0
11-15yrs	30	11.3	90.0
16-20yrs	4	1.5	93.3
more than 20yrs	8	3.0	100.0
Organisational year of practice			
1-5yrs	30	11.3	25.0
6-10yrs	43	16.2	60.8
11-15yrs	30	1.5	85.8
16-20yrs	4	35.0	89.2
more than 20yrs	13	4.9	100.0
Average cost of project			
1m-4m	12	4.5	10.0
5m-49m	58	21.9	58.3
50m-499m	42	15.8	93.3
500m and above	8	3.0	100.0
Organisational workforce			
10 – 49	34	12.8	28.3
50 – 199	78	29.4	93.3
200 and above	8	3.0	100.0
Nature of work undertaken			
Building works	34	12.8	28.3
Civil engineering works	8	3.0	35.0
Both civil and building	78	29.4	100.0

Table 1b: The Demographic Profiles of the Respondents

Operatives	Frequency	Percentage	Cumulative
Highest academic qualification			
FSLC	72	27.2	27.2
SSCE	92	34.7	61.9
OND	81	30.6	92.5
Others	20	7.5	100.0
Trade			
Painter	103	38.9	38.9
Manson	71	26.8	65.7
Tiler	41	15.5	81.1
Iron bender	40	15.1	96.2
Others	10	3.8	100.0
Year of experience			
1-5yrs	92	34.7	34.7
6-10yrs	91	34.3	69.1
11-15yrs	61	23.0	92.1
16-20yrs	21	7.9	100.0
Level of Skill			
Skilled labour	254	95.8	95.8
Unskilled	11	4.2	100.0

Regarding the academic qualification for the respondents, Table 4.1 above showed that the highest percentage of respondents (15.1%) had BSc/BTech, followed by (14.3%) of the respondents with HND. On the year of practice, 18.1% of the respondents are people between 6-10years of practices, followed by 11.3% of respondents with 11-15years of practices. These revealed that the responses from the respondents could be considered valid to provide answers to the questionnaires. On the organisational year of practice, Table 1a, showed the highest percentage of firms (35%) with 16-20yrs of practice, followed by (16.2%) of firms with 6-10years of practice. These revealed that most construction firms understand human resources management practices.

On the project's average cost, Table 1a, showed the highest number of construction firms (21.9%) that carried out projects between 5m-49m, followed by (15.8%) of construction firms that carried out projects between 50m-499m. Also, it further revealed the organisational workforce of the construction firms. It showed that (29.4%) of the firms have the highest workforce of 50-199 followed by (12.8%) of firms with less than 50 workforces. Also, 29.4% of the construction firms undertake both building and civil engineering works, followed by 12.8% and 3.0% for firms that undertake only building and civil engineering works.
Also, the results for each of the four (4) variables operatives are presented in Table 1a above.
Regarding the academic qualification for the respondents, Table 1b showed that the highest percentage of respondents (34.7%) had SSCE, followed by (30.6%) of the respondents with OND. On the type of trade for the various operatives, Table 1b, revealed that 38.9% of the respondents were painters, followed by 26.8% of the respondents who are masons. On the year of experience, 34.7% of the respondents are people between 1-5years of experience, followed by 34.3% of respondents with 6-10years of experience. On the level of skill of the operatives, Table 1a, showed the highest percentage of respondents (95.8%) were skilled labours, followed by (4.2%) of the respondents who are unskilled. These revealed that the responses from the respondents could be considered valid to provide answers to the questionnaires.

Effects of Employees Welfare Packages on Construction Workers Productivity
For objective three (3) which is to establish the effects of employee's welfare packages on workers' productivity. The results in Table 2 below, showed the effects of employee's welfare packages on workers' productivity.

Table 2: Effects of Employees Welfare Packages on Construction Workers Productivity

Employees Welfare Packages	Mean	Std. D	Rank
Economic Services	**2.75**	**1.359**	**ME**
Wages	3.37	1.395	1
Overtime payment	3.02	1.656	2
Salaries	2.92	1.566	3
Credit facilities	2.83	1.621	4
Life assurance	2.29	1.613	5
Pension	2.08	1.550	6
Recreational Services	**2.94**	**1.225**	**ME**
Site accommodation	3.83	1.475	1
Water and electricity supply	3.22	1.588	2
Lodging allowances	2.65	1.746	3
Sports (Football, video games)	2.52	1.688	4
Weekend hangouts	2.46	1.507	5
Facilitative Services	**3.27**	**1.273**	**ME**
Canteen	4.28	1.440	1
Tools and equipment's	3.96	1.465	2
Temporary stores	3.65	1.686	3
Site security	3.41	1.619	4
Housing facilities	3.10	1.760	5
Transportation (Project vehicle)	3.05	1.701	6
Lunch rooms	2.98	1.663	7
Leave travel concession (LTC)	2.94	1.757	8
Medical facilities (First aid)	2.80	1.684	9

From Table 2, a total of twenty-one (21) effects were identified, analysed and ranked accordingly under each of the three (3) major individual variables; eleven (11) variables were identified to be of high effects. In contrast, ten (10) were identified to be of low effects of welfare packages on

construction workers productivity. The 11 variables ranked to be in high effects with their various mean score as indicated in Table 2 above, are canteen (4.28), tools and equipment's (3.96), site accommodation (3.83), temporary stores (3.65) and site security (3.41). Others are wages (3.37), water and electricity supply (3.22), housing facilities (3.10), transportation (project vehicle) (3.05) and overtime payment (3.02). In contrast, the ten (10) variables ranked to be in low effects with their various mean score are lunch rooms (2.98), leave travel concession (LTC) (2.94), Salaries (2.92), credit facilities (2.83), medical facilities (first aid) (2.80) and lodging allowances (2.65). Others are rest rooms (2.55), sports (football, video games) (2.52), weekend hangouts (2.46), life assurance (2.29) and pension (2.08).

Relationship between human resources management practices and construction workers productivity

Table 3 showed the correlation test to determine the relationship between human resources management practices and construction workers productivity.

Table 3: Relationship Between Human Resources Management Practices and Construction Workers Productivity

		Human Resources Management Practices	Construction Workers Productivity
Human Resources Management Practices	Correlation Coefficient	1.000	.237*
	Sig. (2-tailed)		.009
	N	120	120
Construction Workers Productivity	Correlation Coefficient	.237*	1.000
	Sig. (2-tailed)	.009	
	N	120	120

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

The result from Table 3 revealed that there is positive significant relationship between human resources management practices and construction workers productivity at rho = .237; n = 120; P < .009. This denoted a perfect relationship by measuring it on Cohen (1988) and Pallant (2011) criteria which asserted that a correlation of 0 means no relationship, and a correlation of 1.0 means a perfect positive correlation. A value of –1.0 means a perfect negative correlation. Therefore, human resources management practices have a positive influence on construction workers productivity. These are consistent with Amina *et al*. (2022) and Akanni *et al*. (2014) who revealed that there is a significant relationship between monitoring and evaluation practices and project delivery.

Table 4: Regression analysis

Regression				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.195*	.037	.029	.823

a. Predictors: (Constant), HRMP

Table 4: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.111	1	3.111	4.588	.034[b]
	Residual	80.016	118	.678		
	Total	83.127	119			

a. Dependent Variable: Construction Workers Productivity
b. Predictors: (Constant), HRMP

Table 5: Coefficient[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	3.044	.359		8.482	.000
	Cost of Building Materials	.195	.091	.193	2.142	.034

a. Dependent Variable: Construction Workers Productivity

Also, a linear regression analysis was carried out to determine the effect of human resources management practices on construction workers productivity. Tables 4, 5, and 6 showed the results of the regression model. The model tested how human resources management practices can predict construction workers productivity.

The model offers a predictive power of 3.7% ($R = .193$; $R^2 = .037$; $F = 4.588$ [with $p = .034$], with beta values (beta = .193). This outcome revealed that human resources management practices had a significant effect on construction workers productivity. Therefore, the regression model implied that human resources management practices have a significant unique contribution to the model measuring it on Pallant (2011) criteria which stated that variables are making significant contributions to a prediction of dependent variables when the significant value is less than .05. But if the significant value is greater than .05; then, the variables are not contributing significantly to the prediction of the dependent variable. Therefore, the null hypothesis is rejected because there is a significant relationship between human resources management practices and construction workers productivity.

Relationship between welfare packages and productivity of construction workers

Table 7 showed the correlation test to determine the relationship between welfare packages and productivity of construction workers, in the study area.

Table 7: Relationship Between welfare packages and productivity of construction workers

		Welfare Packages	Productivity of Construction Workers
Welfare Packages	Correlation Coefficient	1.000	.365**
	Sig. (2-tailed)		.000
	N	265	120
Productivity of Construction Workers	Correlation Coefficient	.365**	1.000
	Sig. (2-tailed)	.000	
	N	120	120

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

From Table 7 above, the result revealed that there is positive significant relationship between welfare packages and productivity of construction workers at rho = .365; n = 120; P < .000. This denoted a perfect relationship by measuring it on Cohen (1988) and Pallant (2011) criteria which asserted that a correlation of 0 means no relationship, and a correlation of 1.0 means a perfect positive correlation. A value of –1.0 means a perfect negative correlation. Therefore, welfare packages have a positive effects productivity of construction workers. These are consistent with Amina *et al*. (2022) and Akanni *et al*. (2014) who revealed that there is a significant relationship between monitoring and evaluation practices and project delivery.

Table 8: Regression analysis

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.122	.115	.786

a. Predictors: (Constant), Welfare Packages

Table 9: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.155	1	10.155	16.421	.000[b]
	Residual	72.972	118	.618		
	Total	83.127	119			

a. Dependent Variable: Productivity of Construction Workers
b. Predictors: (Constant), Welfare Packages

Table 10: Coefficient[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	2.849	.244		11.661	.000
	Cost of Building Materials	.241	.060	.350	4.052	.000

a. Dependent Variable: Productivity of Construction Workers

Also, a linear regression analysis was carried out to determine the effect of welfare packages on productivity of construction workers. Tables8, 9 and 10 showed the results of the regression model. The model tested how welfare packages can predict productivity of construction workers. The model offers a predictive power of 12.2% (R = .350; R^2 = .122; F = 16.421 [with p = .000], with beta values (beta = .350). This outcome revealed that welfare packages had a significant effect on productivity of construction workers. Therefore, the regression model implied that welfare packages has a significant unique contribution to the model measuring it on Pallant (2011) criteria which stated that variables are making significant contributions to a prediction of dependent variables when the significant value is less than .05. But if the significant value is greater than .05; then, the variables are not contributing significantly to the prediction of the dependent variable. Therefore, the null hypothesis is rejected because there is a significant relationship between human resources management practices and construction workers productivity.

Measures to Improve Construction Workers Productivity

The most effective measures for improving construction workers productivity based on the mean score, a benchmark of 3.50 was set. This same benchmark was set in (Olanrewaju *et al*., 2020; Ihedigbo *et al*., 2023) to assess the significant variables.

Table 11: Measures to Improve Construction Workers Productivity

Code	Effective Measures	MIS	SD	t-value = 3.5			R
				T	Df	Sig	
EWM1	Adequacy of wages	4.37	.340	11.309	119	.000	2
EWM2	Social liability of industry	3.80	.992	3.311	119	.001	14
EWM3	Impact in efficiency	3.83	1.234	2.884	119	.005	12
EWM4	Increase in personality	3.79	1.060	3.013	119	.003	16
EWM5	Total of welfare	3.62	1.415	.903	119	.368	26
EWM6	Coordination or integration	3.71	1.350	1.691	119	.093	21
EWM7	Democratic values	3.64	1.201	1.292	119	.199	24
EWM8	Accountability	4.40	.834	11.819	119	.000	1
EWM9	Timely	3.85	1.400	2.738	119	.007	11
EWM10	Career break programs	3.75	1.404	1.951	119	.053	19
EWM11	Developing productivity measures for all operations	3.83	1.349	2.706	119	.008	12
EWM12	Sound work environment	4.08	1.210	5.204	119	.000	4
EWM13	Job security factor	4.25	1.031	7.969		.000	3
EWM14	Safety and health factor	3.98	1.353	3.912	119	.000	7
EWM15	Incentive scheme	3.78	1.330	2.334	119	.021	15
EWM16	Complying to government guidelines	3.63	1.303	1.051	119	.296	25
EWM17	Employees training	4.03	1.247	4.613	119	.000	5
EWM18	Offering genuine flexibility options	3.51	1.257	.073	119	.942	27
EWM19	Holding well-being based workshops	3.89	1.083	3.961	119	.000	10
EWM20	Appointing health well-being leader	3.70	1.307	1.677	119	.096	22
EWM21	Providing well-being based employee benefits	3.77	1.262	2.315	119	.022	17
EWM22	Providing access to an employee assistance programmes	3.38	1.468	-.871	119	.386	29
EWM23	Introducing friendly fitness challenges between staff	3.66	1.233	1.406	119 119	.162	23
EWM24	Conducting regular risk assessments	3.76	1.418	1.940		.055	18
EWM25	Maintaining good hygiene within the work environment	3.90	1.260	3.479	119 119	.001	8
EWM26	Working conditions	4.03	1.325	4.340		.000	5
EWM27	A balance between personal and professional life	3.74	1.475	1.794	119	.075	20
EWM28	Through intrinsic motivation	3.90	1.095	4.000	119	.000	8
EWM29	Through extrinsic motivation	3.50	1.209	.000	119	1.000	28

Note; S-K = Skewness, K-S = Kurtosis, MIS= Mean Score, SD = Standard Deviation, df = Degrees of Freedom, Sig. Significance at 95% Level (p < 0.005), R = Ranking

From the Table 11, considering that, all the measures were above 3.50 except EWM22 (Providing access to employee assistance programmes) which is below the 3.50 benchmark. Furthermore, the significant variables were determined using the level of significance (p-value) of the data obtained from each of the variables. The result in Table 11 indicated that a total of 29 variables were established to be significant measures for improving construction workers productivity. Also, the most top ranked strategies from the identified twenty-nine (29) measures with their p-value are adequacy of wages .000, sound work environment .000, job security factor .000, safety and health factor .000, employees training .000, holding well-being workshops .000, accountability .000, working conditions .000, through intrinsic motivation .000 and maintaining good hygiene within the work environment .001. Others are social liability of industry .001, increase in personality .003, impact of efficiency .005, timely .007, developing productivity measures for all operations .008, incentive scheme .021 and providing well-being-based employee benefits .022.

CONCLUSION AND RECOMMENDATIONS

The study assessed the effects of employees' welfare packages on workers' productivity on construction sites in Ebonyi State with a view to suggesting areas of improvement. It was concluded that canteen, tools and equipment, site accommodation, temporary stores, site security, wages, water and electricity supply, housing facilities, transportation (project vehicle) and overtime payment were the most effective welfare packages contributing to the workers productivity. The outcome also revealed there was a significant positive correlation between human resources management practices and construction workers productivity. Also, there was a positive significant relationship between welfare packages and productivity of construction

workers. Also, the outcome revealed that both human resources management practices and welfare packages have significant effects on construction workers productivity.

Thus, measures such as adequacy of wages, sound work environment, job security factor, safety and health factor, employees training, holding well-being workshops, accountability, working conditions, through intrinsic motivation, maintaining good hygiene within the work environment, social liability of industry, increase in personality, impact of efficiency, timely, developing productivity measures for all operations, incentive scheme and providing well-being-based employee benefits are the significant measures for effective improvement of construction workers productivity.

i. It has been established that job security, productivity and labour dissatisfaction at work are the major factors affecting human resources management practices, and it is therefore recommended that adequate job security, health and safety and good quality work-life should be provided for workers in order to reduce the issues of brain drain and labour turnover in the construction industry.
ii. Appropriate welfare measures should be adopted when motivating workers on site in order to increase productivity thereby leading to overall project delivery success.

REFERENCES

Adeniran, A. O., Asifat, J. T., Familusi, O. B., and Folorunso, S. S. (2024). Critical Analysis of Research Methods and Misperceptions of Statistical Analysis. *International Journal of Innovation in Management Economics and Social Sciences*, 4(3), 29-50. https://doi.org/10.59615/ijimes.4.3.29

Adeniran, A. O., and Tayo-Ladega, O. (2024). Critical Analysis of Phenomenological Research Design in a Qualitative Research Method. *Management Analytics and Social Insights,* 1(2), 186-196. https://doi.org/10.22105/ad338t15

Armstrong, M. (2006). A Handbook of Human Resource Management Practices (10th Ed.).London, Kogan Park Ltd.

Armstrong, M., Murlis, H. (1991). Reward Management: A Handbook of Remuneration Strategy and Practice, London, Kogan Park Ltd.

Aslpoor, N.D., and Amirnejad, G.A. (2016). Effect of Employees' welfare on Job Performance of Staff at the Islamic Azad University, *AbadanIIOABJ,* 7(4), 419–42

Atseye, F. A, Takon, S. M. and Ogar, O. A. (2014). Impact of national minimum wage on low income workers in Calabar municipality, Nigeria. Developing Country Studies, 4(26), 28 – 36

Chihongaki, S.M. (2019). The impact of welfare programmes on employees' performance in public sector: A case of Ludewa District Council, Tanzania. Unpublished Master degree thesis submitted to Mzumbe University. Tanzania

Drucker, P.F (1954). The Practice of Management. USA: Heinemann

Emmah, M.T. and Teresa. W. (2022). Influence of welfare practices on job satisfaction in selected university in Kenya. *International Journal of Social Science and Humanities Research*, 10(3), 399 420

Folorunso, S. S., Udeh, G. H., and Adeniran, A. O. (2024). A Study on the Effectiveness of Continuing Professional Development (CPD) among Professionals in the Built Environment. *Management Analytics and Social Insights*, 1 (2), 235-245.

Hendra, G., and Rezki, A. (2015). Wages and employees performance: the quality of work life as moderator. *International Journal of Economics and Financial Issues*, 5, 349 – 353

Idiaye, C, Kuhn, A. and Okoruwa, V. (2018). Minimum wage policy and rural household welfare in Nigeria. *30th International Conference of Agricultural Economist*, 1 – 32.

Ihedigbo, K.S. and Jimoh, R.A. (2022). Influence of Human Resources Management Practices on Organisational Performance of Construction Firms: A Review. *3rd International Halich Conference on Multidisciplinary Scientific Research Istanbul Turkey*, 448-458

Ihedigbo, K.S. (2017). Time performance of Educational Building Projects in Ondo State. Unpublished Postgraduate Thesis Submitted to Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, Akure. Ondo State

Ihedigbo, K.S. (2023). Influence of Human Resources Management Practices on Organisational Performance of Construction Firms in Lagos State. Unpublished Maters Thesis Submitted to Department of Building, School of Environmental Technology, Federal University of Technology, Minna. Niger State

Ihedigbo, K.S., Olughu, C.E., Bello, A.O. and Olonade, I.A. (2023). Influence of Welfare Packages on Construction Workers Productivity in Nigeria: A Review. *Cankaya International Congress on Scientific Research*, 426 – 434

Inegbenebor, A.U and Agbadudu, A.B. (1995). *Introduction to Business: A Functional Approach*. Nigeria: Uri Publishing Ltd

Kreitner, R. (2007). Principles of Management (11th Edition). Canada: Nelson Educational Limited

Lagat, A.C. (2014). The Importance of Employee Welfare and Performance at Egerton University, Kenya.*European Journal of Business and Managementwww.iiste.org ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online), 6(7), 14-20*

Manandhar, S. (2015.) The Impact of Welfare Facilities on the Performance of Employees in NGOs in Nairobi: A Case of Kenya Red Cross, Nairobi Branch. Unpublished Masters Thesis Submitted to Department of Project Planning and Management of the University of Nairobi, Kenye

Manju, B and Mishra, S. (2007). The principles for successful implementation of labour welfare activities. From police theory to functional Theory.

Manju, B. and Mishra, S. (2012). The Principles for Successful Implementation of Labour Welfare Activities. From Police Theory to Functional Theory: Retrieved on November 20th 2018 from htt://www.tesioline.com/intl/indepth.jsp?id=575

Manumbu, F. (2015). *Impact of Employee Welfare Services in an Organization Performance: A Case Study of Mwananchi.Co.Ltd*. Unpublished Master's Thesis Submitted to Mzumbe University– Dar Es SalaamCollege

Muruu, R.W., Were, S. and Abok, M.A. (2016). Effects of Welfare Programmes on Employee Satisfaction in the Public Sector: A Case of the Public Service Commission: *The Strategic Journal of Business Change andManagement,* 3(87), 1607- 1633 *www.strategicjournals.com, ©strategic Journals*

Musyoka, S.W. (2015). Effect of Staff Welfare Programs on Employee Satisfaction Among Commercial Banks in Kenya. Unpublished Master's Thesis Submittedto the Chandaria School of Business in Partial Fulfillment of theRequirement for the Degree of Executive Masters of Science in Organisation Development (EMOD)

Okerere, C.I. and Daniel, A. (2010). Staff Welfare and Productivity in Patani Local Government Council, Delta State Nigeria. *Journal of Economics and International Finance*, 2(12), 313-320

Olughu, C.E., Okolie, K.C. and Ihedigbo, K.S. (2022). Effects of Human Resources Management Practices on Construction Workers Productivity in Ebonyi State, Nigeria: A Review. *3rd Istanbul International Modern Scientific Research Conference, Istanbul Gedik University, Turkey*, 514-521

Rajkuar, B. (2014). A Study on Labour Welfare Measure and Social Security in IT Industry in Reference to Chennai. *International magazine of Enterprise Computing and Business System*, 4(1), 45-78

Sharma, M. S. and Sharma, M. V. (2014). Employee Engagement to Enhance Productivity in Current Scenario. *International Journal of Commerce of Business and Management*, 3(4), 595 604.

Simi, S.V. and Chadrasekar, K.S (2020). Impact of labour welfare measures on economic factors: Among unorganized construction workers in Kerala. Journal of Xi'an University of Architecture and Technology, XI(XII), 552

Sivarethinamohan, R. (2010). *Industrial Relations and Labour Welfare: Text and Cases*: New Delhi: PHI Learning Pvt. Ltd.

Susanne, P. (2011). Leadership Theory and Practice. (4th Ed.). California: Sage Publications

Wacheke, F.G. (2017). Factors Affecting Employees Productivity in County Government in Kenya: A Case Study of the County Government of Laikipia. Unpublished Degree Thesis Submitted to School of Management and Leadership, University of Africa. Kenya

Waititu, F, Kihara, P., and Senaji, T. (2017). The Effect of Welfare Programs of Employees on Employee Performance in Kenya Railway Corporation. *International Academic Journal of Human Resource andBusiness Administration*, 2(3), 611-63