

Correlation of Casualization Mechanism and Construction Workers Safety Behaviour

P. U. Okoye, K. C. Okolie, and Y. W. Aderibigbe

Abstract: *The need to align with the prevailing economic restructuring has made the construction industry to adopt a number of strategies including the use of casual workers for all its operations. The fact that these strategies have not significantly improved the safety status of the industry calls for investigation into the employment system of the industry. This study therefore examined the relationship between casual employment and safety behaviors of construction workers in South East, Nigeria. The study provided an insight into the spate of use of casual workers in construction industry and its attendant consequences in areas of health and safety. It employed survey research method where a questionnaire was structured and randomly distributed to a total of 1200 respondents who were construction site operatives in almost all trades in the industry. Data obtained were presented and analyzed using tables, simple percentages, mean score index and standard deviation. Pearson product moment correlation and t-test statistics were used to ascertain the correlation and its statistical significance between casualization and workers safety behaviours respectively. The result revealed that a very high negative correlation ($r=-0.88$) that is statistically significant exist between casualization and safety behaviours of construction workers. The result also noted the negative effects of casualization which among others is responsible for workers unsafe behaviours and subsequent increase in chances of accident on site. It however, recommended a holistic review of existing labour laws that will incorporate "labour loading" as it's being practiced in New Zealand as well as integrating casual workers into the mainstreams of construction industry safety programmes. This will help to minimize arbitrary use of casual workers and rate of unsafe behaviours by the workers.*

Index Terms: Casualization, Construction Workers, Quality Work Life, Safety Behaviour

I. INTRODUCTION

The rate at which construction workers continue to exhibit unsafe attitude and behavior at site irrespective of numerous efforts the industry is making towards establishing an enduring safety culture is giving a serious concern to the construction professionals and practitioners alike. The issue has seems to have gone beyond standardization and application of regulations. In view of this, it is pertinent to look inwards at the system of employment within the industry with a view to ascertaining its relationship with the safety behaviors and attitudes of construction workers and accidents on site. According to [1], the traditional industrial relation system based on the concept of full-time employees working within an enterprise is increasingly being challenged by the use of nonstandard work arrangement (NSWA) by employers. Similarly, [2] observes that the use of temporary workers is growing rapidly and has spread across industries—from

manufacturing to services and other occupations, including construction workers, registered nurses, bankers, information technologists. This system of employment, [3] observes, has equally spread across the European Union, Canada and United States as a measure for labour market recovery due to the impact of economic and financial crises on youth unemployment. Hampton also acknowledges that this system which is widely in operation in Japan is spreading fast in the United States of America where it is now undergoing fundamental changes. This system is also gaining grounds in Africa, especially in Nigeria (Cited in [4]). This growth, according to [5], has been connected to industry restructuring and labour market flexibility. [6] the increase is attributed to the vulnerability of employees in Nigeria, occasioned by high level of unemployment and accompanying poverty. In an attempt to maximize profit and keep up with competition, [7] reveals that some work organizations resorted to unethical business practices like casualization of workers thereby hurting workers interest and violating some fundamental labour laws. The effect of this unethical practice is colossal and questions the bases for principles of sustainable construction practice, even as [8] recognize the efforts the industry is making towards finding a reasonable and efficient safety management system geared towards achieving sustainable construction. The forgoing situation in the industry is quite unhealthy and places the achievement of sustainable construction and its resultant sustainable development in jeopardy. It is contended that a substantial body of international research indicates that in many instances flexible work arrangements such as temporary and home-based work, the use of subcontractors/outsourcing and increased job insecurity resulting from downsizing is associated with inferior outcomes in terms of worker safety, health and well-being [9]. It is also becoming increasingly clear that a number of the work arrangements and organizational changes just described pose a significant problem for Occupational Health and Safety regulators and those administering workers compensation/rehabilitation regimes. The fact that a number of research have been done in the area of labour casualization both in the developed and developing countries including Nigeria makes it more worrisome. This is because majority of these studies have focused on its effects on productivity, organization performance, workers welfare and economy, motivation, labour utilization, unemployment, and skill shortages [2],[4],[5],[6],[9],[10],[11],[12],[13],[14],[15],[16], while little or no work has been done with respect to relationship between casualization and construction workers safety

behaviours on site. Secondly, [17] report that the rise in the proportion of workers and firms involved in this form of employment has led to concerns about the implications of this expansion for the job security, job safety and job satisfaction of Australian workers. It is against the above backdrop that this paper assesses the mechanism of casual work employment system and its relationship with safety behaviours and attitudes of construction workers in Nigeria. The result of this study will help to ascertain the overall suitability or otherwise of the current employment practices in Nigerian construction business and thereby finding a better way of accommodating the situation for sustenance of healthy construction practices, reduction in accident on site and sustainable construction.

II. LITERATURE REVIEW

A. Concept of Casualization

Casualization is a product of neo-liberalization. The concept evolved as a result of industrial restructuring, revolutionization, labour market flexibility [5],[12],[14],[18],[19], and global economic meltdown. Casualization as a form of employment therefore is a system of employment that does not follow the standard work arrangement. According to [20], the definitions of casual employment are often a source of confusion and controversy because it is marked by tension between vernacular, regulatory and contractual meanings. Available researches have preferred using different terms for this same concept, e.g. contract, contingent, casual, irregular, non-standard, atypical, non-core, temporary, part-time, flexible, hire labour, subcontracting, fixed term, short term, etc [4],[9],[21],[22]. In order to ameliorate the effect of retrenchment and unemployment, and at the same time remain competitive and profitable in the global market arena, companies and organizations resorted to engaging the use of casual employment as the closest alternative. The increase in casualization in the labour market is a subject of great concern. Increasingly casual employees are filling positions that are permanent in nature and behind employee vulnerability; the high levels of unemployment and accompanying poverty are the most driving force in Africa [6],[12],[15]. Beside these, [2] observes that the three main reasons for employers to use short term workers are flexibility of staff, reduction of cost and ease of dismissal. On his part, [23] notes that global experiences have shown that employers use labour hire workers for a variety of reasons, which include coping with peaks in demand, reducing costs, avoiding industrial relations problems, greater flexibility, as well as avoiding retrenchment procedures and trade unions. Globalization, technological change and abundance of labour supply are also determinant factors [1]. In addition, Brennan, et al. (cited in [17]) contends that the firms' main reasons for using labour hire include among others:

- source additional staff;
- replace temporarily absent employees;
- outsource the administrative burden of employment;
- achieve thorough recruitment; and

- Overcome skill shortages.

However, as a driving force to casualization, neo-liberalism tends to deregulate global markets including the labour market to increase labour flexibility. However, [24] avers that flexibility of labour is reflected in an employer's ability to: recruit or dispose of labour as required; alter labour costs in line with market needs; allocate labour efficiently within the firm; and, fix working hours to suit business requirements. But [25] argues that in the context of the employment relationship flexibility is for the employer and of the employee, and, subsequently, whilst there are undeniable benefits for labour from certain forms of flexibility – where there are mutual gains to be had from both parties – flexibility cannot be seen as unequivocally good from an employee perspective. To this end, [26] identifies three kinds of flexibility to include: *employment flexibility* (the freedom to determine employment levels quickly and cheaply), *wage flexibility* (the freedom to alter wage level without restraint), *functional flexibility* (the freedom to alter work processes, terms and conditions of employment, etc and cheaply) upon which increase in adoption of casual employment is based.

[1] Casualization as a form of labour practice is the process by which employment shifts from a preponderance of full time and permanent positions to higher levels of casual positions thereby involving employment of an irregular or intermittent nature. This form of employment is characterized by job insecurity, low wages and substandard working conditions, limited training and skills development and low levels of unionization, job dissatisfaction, low level of sense of belonging, unscheduled turnover, low morale, low level of productivity, dehumanization of work and workers, lack of employment benefits that accrue to regular employee, promotion as well as right to organize and collective bargaining[2],[15],[22],[23],[25],[27].

According to [17], the labour hire work arrangement may be deficient in terms of:

- training, promotion, human capital investment, and career prospects;
- occupational health and safety and workers' compensation and rehabilitation; and
- job security and workers' remuneration and entitlements.

However, [28] avows that the work of non-regularly employed workers is characterized not only by low income (as we have seen earlier) but by variability in the intensity as well as timing of labour use over the production cycle by individual workers in this category. For [29], the key challenge in casual employment is not simply to rectify problem experienced by individual casual worker, rather the problem is the processes of casualization itself. He then maintains that the significance of casualization is that it is integral to labour management strategies that achieve better deployment, and not development of labour.

B. Casual Employment in Nigeria Construction Industry

The growth of casual labour is not in doubt, the debate turns around how it is defined and measured? Neither is it a new phenomenon as employers have used non-standard

employment for decades [12]. Although the exact origin of casualization in Nigeria is not clear, [1],[10],[30],[31], trace the emergence of casualization in Africa and Nigeria's labour market to the introduction of Structural Adjustment Programmes (SAP) in 1986 as well as adoption of International Monetary Fund (IMF) directives and World Bank loans. According to [1] the combination of these factors led to a slump in the economy. Many factories shut down, some operating below minimum capacity and many organizations found it difficult to compete in the globalized economy which is tilted more in favour of the developed economies. The resultant of the policy was unprecedented retrenchment of workers in the public sector which created a large scale of unemployment, globalization and trade liberalization added to competition from imported goods, which forced enterprises in Nigeria to reduce their staff strength and replace them with contract and casual workers in order to cut costs of production and remain competitive [1],[31]. As the Structural Adjustment Programme (SAP) was geared towards less government involvement in the economy and more private sector participation, revitalization of the private sector was aimed at attracting the much needed Foreign Direct Investment (FDI) into the country. While it attracted some FDI almost in all sectors of the nation's economy, it has led to the lowering of labour standards at the same time. Under the Structural Adjustment Programmes (SAPs) which began in the late eighties, [10] observe government development expenditure was heavily curtailed as part of the austerity measures required by the donors. Investment in buildings was particularly affected, as evidenced by the numerous stalled projects that have remained unfinished for over ten years and the public sector was no longer a major client in the building sub-sector.

[32] Casualization as a form of predominant employment practice in Nigeria was also occasioned by the collapse of the oil-boom and the introduction of the Structural Adjustment Programme, a development which eventually led to the downsizing and mass retrenchment of skilled people particularly in the urban centres and resulted in numerous cases of unemployment. In order to stay afloat and in search for a means of survival, many of these retrenched workers whose status cuts across graduates and non-graduates engaged themselves in trivial jobs along the streets with very infinitesimal pay, hard work condition and in violation of labour law. This practice continued and gradually started to become popular, as employers saw it as a very cheap means of getting work done. Today, this form of employment relationship has become the in-thing and the bulk of workers in the construction sector and other sector such as telecommunications, oil and gas sectors, banking and other sectors of the economy are casual employees [7],[33],[34].

C. Casualization and Quality of Work Life (QWL)

According to [35], within organizations, the nature of the work carried out by individuals and what they feel about it is governed by the employment relationship and the psychological contract. However, increasing number of workers have found themselves outside the standard purview of collective relations in Nigeria without any effort

to ameliorate its adverse effects, unlike in advanced countries where the situation has necessitated a readjustment in collective labour relations rules and practices so that the workers concerned can enjoy the fundamental collective labour relations rights of collective bargaining and union representation, as well as protection against exploitation [17],[20],[27],[36]. It is however disheartening that these set of workers are regarded as casual and treated as such. In response to this, the workers equally see themselves as casual and not being integral part of whatever organization that employs them. This situation is unhealthy and can influence the workers perceptions and behaviours because [37] argues that workers participation and consultation has significant role in managing the health and safety of construction industry. It also negates the tenets of "Quality of Work Life". QWL is described as the favorable working environment that supports and promotes satisfaction by providing employees with rewards, job security, career growth opportunities, etc [38]. Empirical evidence also shows that vast majority of construction workers are casual, and there is tendency that this abysmal replacement of permanent or full time construction workers with casual workers have some influence on workers perception which invariably affects their safety behaviour and attitude. [39] argue that casual nature of employment in construction industry is one of the causes of construction site accidents. It has also been established that organizational safety climate influences the safety behaviour of workers [21],[40],[41],[42].

To buttress this, [43] argue that QWL is a comprehensive construct that includes an individual's job related wellbeing and the extent to which work experiences are rewarding, fulfilling and devoid of stress and other negative personal consequences. The elements that are relevant to an individual's quality of work life include the task, the physical work environment, social environment within the organization, administrative system and relationship between life on and off the job. To this end, [38] affirm that good quality of work life is necessary for an organization to attract and to retain skilled and talented employees. They maintain that in order to survive in the competitive market because of liberalization, privatization and globalization and to minimize the attrition rate of employees the QWL initiatives are very important. QWL is a multi-dimensional construct, made up of a number of interrelated factors that need careful consideration to conceptualize and measure. It is associated with job satisfaction, job involvement, motivation, productivity, health, safety and well-being, job security, competence development and balance between work and non-work life as is conceptualized by European Foundation for the Improvement of Living Conditions [44].

Researchers have affirmed that QWL involves wide variety of components or elements that are influenced on the performance of employees, the following elements or components are commonly associated with individual's quality of work life. The task (nature of work), the physical work environment, social environment within the organization (reflecting notions of a 'well-paid' or 'lowly-paid' job), administrative system and relationship between life on and off the job, remuneration including pay, perks

and benefits, job satisfaction and job security, contractual arrangements (for example, permanent or temporary employment), extent of involvement and influence in organizational decision-making, felt fairness' – reward commensurate with level of effort exerted, health, safety and well-being, training and development, organization culture and climate, equity, justice and grievance handling, etc [25],[45],[46],[47],[48],[49],[50]. These revelations together with increased accident rate on construction sites are the propelling force necessitating this research.

III. RESEARCH METHODOLOGY

The study is a survey research. The approach involves the use of structured questionnaires which was considered to be the most appropriate tool to reach the population of the study especially when data required for the study can be obtained by the instrument. The respondents for the study were construction site operatives, covering almost all the trades in the construction industry. The respondents were randomly selected from 80 construction sites across the South East states of Nigeria. The questionnaire was issued to 1200 potential respondents, and a total of 861 questionnaires were duly completed, returned and found suitable for analysis, representing a response rate of 71.75%. The questionnaire contains fourteen (14) statements relating to casualization and safety behaviour of workers on site. These were measured on a five point Likert Scale where 1 = strongly disagreed and 5 = strongly agreed. The data collected were analyzed using tables and simple percentages. Mean Score Index and Standard Deviations were calculated; Pearson Product-Moment Correlation Coefficient (r) was used to determine the relationship between casualization and workers' safety behaviour while two-tailed non directional test statistic (t-test) was used to ascertain the significance of the correlation, at degree of freedom (n-2) and 5% (0.05) significance level. Results and discussion are presented in section 4.0 below.

Decision: Reject H_0 if $t_{\text{calculated}} > t_{\text{critical}}$ at df (n -2) and at 5% (0.05) significance level otherwise accept H_0 and conclude.

IV. RESULTS AND DISCUSSION

The result shows that 72.4% of the respondents are casual workers, while 27.6% are permanent workers (see Table 1). The scenario above shows the extent of involvement of casual workers in construction industry.

Table 1: Categories of Respondents

S/N	Respondent	Frequency	Percentage (%)
1	Casual workers	658	72.4
2	Permanent workers	203	27.6

It has testified the fact that casual work employment is gradually replacing permanent employment especially in industries such as construction because of its vulnerability to many factors such as the nature of the industry itself, government policy, perceived cost reduction, the behaviour of the industry's players, etc. Worse still, majority of those under permanent work arrangement are in the position of supervisors and gang leaders. That underscores the magnitude to which casualization of labour is permeating into the industry's employment system.

A. Hypothesis:

Hull Hypothesis (H_0):

There is no significant relationship between casualization and construction workers' safety behaviour.

Alternative Hypothesis (H_1):

There is significant relationship between casualization and construction workers' safety behaviour.

The result analysis also shows that casualization have a very high negative correlation ($r = -0.88$) with construction workers safety behaviour. When tested for its significance the t- test value calculated (6.418) was greater than t- test critical value (0.532) at 5% significance level ($\alpha = 0.05$) and degree of freedom of 12. Since t-test calculated (6.418) is greater than t-test tabulated (0.532) at $\alpha = 0.05$ and df of 12, H_0 is therefore rejected. Hence, there is significant negative relationship between casualization and construction workers safety behavior (see Table 2).

This result has both practical and theoretical implications.

- The more employment system is being casualized in construction industry the more construction workers exhibit unsafe behaviours on site.
- The extent to which p value (< 0.0001) is less than α level (0.05) shows that the relationship is largely significant and also suggests the extent of unsafe behaviours construction workers especially the casual workers put on site irrespective all the safety efforts of site management towards ensuring a safety work environment.
- The negative sign in the correlation coefficient (-0.88) represents the negative tendencies of casualization towards safety behaviours of construction workers on site. This may even suggest other negative tendencies like accident on construction site.
- Construction operations will continue to record high incidence of accidents if its workforce is not properly integrated into the standard work arrangement that will ensure that workers are well groomed into observing construction safety policies and programmes. This is because casual workers felt that they were not part of any policy or programme of the organization they are working for. Their ultimate goal is to work and get paid and they are ready to take extra risk inasmuch as it means additional pay.

Table 2: Effect of casualization on construction workers safety behaviour

Correlation Coefficient (r)	Nature of Association	T - test value	T _{critical} (12,0.05)	P - value	Decision
-0.88	Very High –ve correlation	6.418	0.532	< 0.0001	Reject H ₀

df = 12; $\alpha = 0.05$, $p < 0.05$.

II. CONCLUSION

Safety is behaviour, people work safely because they behave safely. A safe work environment depicts a condition where workers are working with their souls and bodies intact. Based on this, this study has reviewed the employment system in the Nigerian construction industry with a view to ascertaining its relationship with the safety behaviours of construction workers on site. It has, successfully established that a statistically significant very high negative correlation exist between casualization of employment system in the construction industry and safety behaviours of construction workers on site. In this case, casual workers show a very high sense of lethargy to safety policies and programmes of the employers. The study has also revealed that the more the industry tries to substitute its permanent labour force with casual workers the more vulnerable the industry will be in terms of safety because peoples' behaviours are influenced by the perceptions and environment. The result also revealed that unsafe behaviours of casual workers may increase the chances of incidence of accident on site. Although flexibility of staff, reduction in cost and ease of dismissal among other were cited as some of the reasons of engaging casual labour, the above scenario, defeats whatever reason with which casual employment system was conceptualized when considered the long term effect of the system. It is against this backdrop that the study suggests implementation of a practice called "labour loading" as being practiced in New Zealand where the difference between benefits accruing to permanent of full time worker and a casual worker is infinitesimal within the same work environment. The existing labour law in Nigeria needs to be wholly reviewed to accommodate this trend of employment since no reference is made in that direction in the whole document. These will minimize the enthusiasm to engage casual workers. More specifically, since construction industry is notorious for its safety situation, there is need to integrate all workers working on a construction site into the mainstream of work force through safety training and workers involvement in every issue concerning them. This will ensure compliance to safety rules and regulations by every worker on site and implementation of the organization's safety policy.

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