

Methods of Improving Reporting of Occupational Accidents in the Nigerian Construction Industry

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ABSTRACT

Information concerning occupational accidents are far less accessible in developing nations, and where data do present, they are mostly undependable. The serious problem is under-reporting. Various types of occupational injuries are sometimes not reported to the appropriate authorities by the construction organizations. Also, the regulatory authorities to ensure all occupational accidents are reported, making sure organizations complied with health and safety regulations, equally perform below standard. The aim of the study therefore is to explore the methods of improving reporting of occupational accidents in the Nigerian construction industry. A literature review was conducted about the under-reporting of occupational accidents, thereafter, 300 structured questionnaires were distributed, to solicit information from the construction professionals in the Federal Capital Territory, Abuja Nigeria, and 235 were returned, therefore considered for the analysis of the study. The data were analyzed with SPSS software and excel. The study found that an increase in health and safety awareness will enhance employees' and organizations' knowledge in the recording and reporting of occupational accidents. The study suggests that organizations and employees should keep with internal accident recording systems whether or not legal obligations to report them are in place, the reasons being for humanitarian, economic, management, and industrial relations.

Keywords

Under-reporting, occupational accidents, health, safety, the construction industry

INTRODUCTION

Workplace illness and injury data are vital for various purposes: improving employers' and employees' understanding of occupational hazards, making policy decisions, and conducting research (Thomas S. Tedone, 2017). Although, capturing dependable information on ergonomic illnesses and injuries has proven to be a serious work (Drudi, 2015). Nevertheless, the significance of possessing acceptable quality and dependable reporting systems could be simply understood, as they are the key source of information for the accident databanks and the making of official statistics. But, the accuracy of occupational information can be compromised by either organizational or employees' or both levels (Weddle, 1996). Under-reporting is generally recognized as an important problem across sectors (Sharon Clarke, 1998). This is a problem that many researchers have been extensively discussed that many

organizations in developing countries do not report incidents to appropriate authorities (Marisol et al, 2005).

Developed nations have reasonably well-funded organizations that assemble OSH data, developing nations don't (ILO, 2012a). Many organizations do not report incidents that do not involve equipment damages and minor injuries to employees, and failure. Nevertheless, it stretches to the failure to report severe occupational injuries (Powell et al, 1971). The accuracy in reporting occupational situations has a role to plays in the management of health and safety of the workplace (Glenn et al, 1999). This includes inspection targeting, performance measurement, safety standards development, resource allocation, identification of low-hazard and high-risk industrial sectors, and national surveillance programs (OSHA, 2018). Monitoring is also an easy method to ascertain the presence of an unbalanced condition of the workplace like an increase in the figure of injuries

Reporting of occupational accidents usually exposes what incidents had occurred, while investigations such as a root cause analysis clarify why the incident happened and what preventive plans can be established and implemented (Latino et al, 2020). It is equally important for the organization to know how to reduce the possibility of reoccurrence, and by what method they know more efficient for their interventions. Collection and analysis of information on near-miss have the following benefits: to achieve a qualitative understanding of how minor errors or failures develop from near misses into real accidents, to attain a statistically dependable quantitative understanding of the incidence influences or combinations of causes giving increase to incidents, and to sustain a certain degree of awareness to hazards, particularly when the proportion of real injuries and other accidents are previously low in the organization (Hale et al, 1991). Experience revealed that it is not an easy scheme to set up a successful reporting system, plan the accurate databank, acquire the needed secondary information, and to extract functional conclusions for the specific industry or national prevention policy and action plans (Drudi, 2015; ILO, 2012b) But developed nations have gathered valuable knowledge in reporting systems and their implementation over decades (Drudi, 2015). The knowledge could serve as a framework of decent practice and have the potential to benefit other nations (Peyman Akhavan, 2006). A report by the (Federal ministry of labour and employment, 2016) highlighted that under-reporting of injuries to the department of OHS, Ministry of Labour and Employment seems huge in contrast to the figure of injuries data forwarded to NSITF. Therefore, the aim of the study is to explore the methods of improving the recording and reporting of occupational accidents in the Nigerian construction industry.

LITERATURE REVIEW

The standard report forms design has an important result in reporting rates. Although report forms tend to emphasize consequences rather than roots (Hale et al, 1991), there should be asymmetry among the quality of data and simplicity of accomplishment. Time-consuming and burdensome reporting techniques have been found to upset the degree of incident reporting (Adams and Hartwell, 1977). Establishment accident under-reporting happens when

an organization is stalled to report injuries happening at work to the appropriate regulatory authorities while employee accident under-reporting happens when a worker fails to report injuries at work to the employer (Laura Petitta et al, 2017). Accident under-reporting constitutes a serious problem to an organization, individual, and public health for various reasons. An employee's failure to report an accident commonly results in the employee's injury going unaddressed. For the organization, undercount can leave the source causes of worker accidents unresolved and unfixed perhaps to crop up afresh in the later and affect other workers. And for public health, erroneous accident reporting weakens national surveillance data, and also hinder policy attempts to establish healthier and safer workplaces. Therefore, under-reporting of occupational diseases and accidents including fatal accidents constituted to the complexity of the problems of health and safety in the workplace (ILO, 2020).

Nations with national health and accident insurance schemes that have a wider coverage of their employed have a clear benefit in leveraging their in-place employees and health compensation systems for information management purposes (Thomas S. Tedone, 2017). Countries without federalized or national legislative insurance and compensation systems like the United States where each state supervises employee compensation depend heavily on the regulatory recording, databanks, and statistical methods to compute workplace injuries (Lenore et al, 2002; Thomas S. Tedone, 2017). It is not possible to doubt that the gathering and computing of occupational diseases and accidents remains a challenge in many countries. This is because reporting necessitates coordinated data and integration from entire project stages and construction activities (KPMG, 2014). Also, many nations lack a consistent and harmonized link for the gathering, collation, and distribution of simple and expert information and training on OSH (Muchiri, 2009). Therefore, the need to build a national infrastructure that efficiently backings these activities is important for a well-functioning OSHMS. Whether the training and information are sought from local or national information centres, professional institutions, all establishments, and employees should have access to it and it must be of good quality.

(Glazner et al, 1998) studied the Denver International Airport construction, there were 433 construction organizations participated, it was found that injury account under employees' compensation claims was double the publication of Bureau of Labor Statistics. (Probst et al, 2008) established undercount of injuries between 2400 construction employees worked on big semiconductor workshop when compared with the figure of injuries registered in the authorized record-keeping log of occupational illnesses and injuries with the figure of injuries recorded in the Owner Controlled Insurance Program.. (Xiuwen et al, 2011) compared the trends in nonfatal injuries, fatal injuries, illnesses and employment in the construction sector from 1992 to 2006 in the U.S, the study indicated that construction illnesses and nonfatal injuries are immensely under-reported, particularly by small contractors and establishments or those with 10 or less wage-and-salary workers. Between these small organizations, estimated figures suggest that 75 percent of nonfatal injuries to Hispanic employees were not reported, and 40 percent of injuries were unreported for white, non-Hispanic employees.

(Schierhout et al., 1997) juxtapose OSH figure to the morgue and the police figure in ten countryside's in South Africa and it was confirmed that only 15 percent of the occupational deaths were listed. Also, (Marianela et al, 2008) estimated that only 1 out of 22 cases that sought medical attention were reported to the national register in Nicaragua. (Noe et al, 2004) highlighted that 3801 work-associated injuries were recognized that accounted for 18.6 percent of the whole 20425 injures recorded by the surveillance system, only twenty-seven work associated fatalities were documented, equate with the 1998 ILO figure of 25 work-related fatalities for entire Nicaragua. (Shannon and Lowe, 2002) highlighted that 143 had incurred an entitled injury out of 2,500 respondents of whom 57 had not filed a workers' compensation claim. (Morse et al, 1998) in Connecticut found that 292 self-reported in extremity pain of work-related only 21% had filed for the employee compensation claim. (Nayanthara and Uthpala, 2018) revealed that 80 % of accidents in construction accidents are under-reported. (Hadi et al., 2017) showed that there was a high record of non-reporting accidents in the construction industry, approximately 94.7 percent of employees in the sector did not report an accident.

Collection of detailed information on how? who? where? and when? employees are injured may be utilized to target injuries control methods to relevant situations and populations and improve the cost-effectiveness of resource distribution (Segui-Gomez, 2007). The effort in the gathering of information on the incidence and other features of injury is to identify the hazard of the impairment in question. The likely bases for underreporting of incidence by the employees include: the use of short-term personnel indicates that a lot of work-related injuries is not communicated due to shorter compensation period (Douglass et al, 1990), injured employees could be under undue pressure by the co-employees and organization not to report accidents (Shannon and Lowe, 2002). For nonfatal injuries, financial inducements discourage workers from reporting (Leigh et al, 2004). Workers might be fearful that their organizations could be deprived of promotion or set them off if they disclose too many injuries. Various occupational illnesses and diseases are underreported owing to their surfacing many years after exposure likewise some years after retirement (Waehrer et al, 2005). Some workers are not covered by employees' compensation insurance, specifically domestic employees and self-employed, therefore, injuries to them are not reported. Similarly, the likelihood of job insecurity might lead to underreporting of incidence in the workplace (Probst T.M, 2006; Tahira M. et al, 2013).

Numerous causes of undercounting of accidents by the employers can be attributed to the absence of employer awareness of reporting prerequisites, measurement issues, disputes over responsibility, difficult definitions and rules, and difficulty in establishing whether an injury truly happened at work (William J. Wiatrowski, 2014). Research by the Bureau of Labor Statistics, highlighted the main reasons for the occurrence of an undercount among establishments are confusion concerning case types; reliance on employees' compensation descriptions, which could vary by state; and absence of clarity on how to register the illnesses and injuries of temporary employees (Gunter, 2016; Wuellner & Phipps, 2017). (Probst et al, 2019) highlighted that it could more difficult to precisely capture the number of events that workers would have reported to their establishment as the standards for what represent

reportable activities vary from establishment to establishment. In some establishments, the report everything policy exists which includes unsafe conditions or behaviour and near misses. Whereas other organizations demand only that real injuries be reported. When an organization underreports occupational injury, its employees' compensation incident will not display its authentic injury experience (Glazner et al, 1998). In such circumstances, prime contractors and construction project managers will make decisions to apply erroneous information based on employees' compensation claims data. Similarly, if organizations do not ascertain entire occupational injuries, they will not properly measure the magnitude and cost of occupational injury. Hence, targeting internal safety resources will be difficult.

Section 51 of the Factories act of 1990 explicit about notification of accidents (The Federal Republic of Nigeria Factories Act, 1990). (Idubor & Oisamoje, 2013) opined that deficiency in the enforcement of safety rules encourage non-compliance by the organizations. Thus, establishments fail to give proper accounts of accidents that happened in the construction sites. (Mba & Hilda, 2014) highlighted that there are less dependable data on accident cases in the Nigerian construction industry as a result of non-reporting of occupational accidents to the appropriate authorities. The state of health and safety in developing nations like Nigeria is worse than what prevails in developed nations because of the absence of concern (Idoro, 2010). (Umeokafor et al, 2014) emphasize that infringement of regulations plays a role in the poor state of health and safety in the Nigerian construction industry. Organizations do not report accidents due to the perception that they might be subjected to disciplinary actions by regulatory authorities (Federal ministry of labour and employment, 2016).

Published national data and knowledge attained globally illustrate that the national systems for reporting, statistics collection and investigation are frequently very bad and do not replicate the actual health and safety circumstances in the nation because diseases and accidents are recorded (ILO, 2012b). The unsatisfactory conditions are varied: sometimes the nation may lack an effective system, that is required for efficient reporting and preventive measures. Occasionally there could be an absence of knowledge concerning the requirements and how to establish an effective system. Equally, there is a deficiency of understanding that efficient reporting is not just bureaucracy but offers the foundation for various political resolutions that developing nations are required to make. It is acknowledged that there are numerous financial benefits to be realized from the improvement in health and safety in the construction sites. To realize this, there is a need for a good understanding of the precise conditions of health and safety to take the right decisions. Efficient risk appraisal and management of the workplace need precise and dependable disease and accident data. Precisely, under-count of illnesses and injuries might trade-off the reliability of surveillance of statistics (Weddle, 1996), therefore preventing timely and proper identification of extents for industry or organizational interventions prevention measures (Probst et al, 2008). Furthermore, unreported affliction could result in the postponements of treatments which can place a substantial burden on the national economies, organizations, employees, their families, and health care systems (Scherzer et al., 2005)

METHODS

The literature review of under-reporting of occupational accidents was conducted from journals, articles, magazines, reports, and textbooks related to occupational health and safety. This forms the primary basis of information on under-reporting of occupational accidents and to identifies, causes, and challenges of reporting and recording of occupational accidents, then methods of improving reporting of occupational accidents were drawn. Thereafter, a field survey with 300 questionnaires structured in a 5-point liker scale were administered to solicit information from the construction professionals in Abuja, Nigeria. 235 questionnaires were returned which represent 78.33 %, considered suitable for the analysis of the study. The data collected were analysed with SPSS software and excel. The relative importance index was employed. This is to find out the importance of factors that represented the methods of improving reporting and recording of occupational accidents in the Nigerian construction industry. The factors put in rank, the top-ranked is more substantial than the next.

RESULTS

The demographic characteristics of the respondents in the study illustrated in table 1 as follows: academic qualification HND/BSC (36.2 %), MSc (48.9 %), PGD (4.3 %), and PhD (10.6

%). The professional affiliation of the respondent showed: Quantity Surveyors (40.4 %), Architects (14.9 %), Builders (6.4 %), and Engineers (83.3 %). The working experience of the respondents showed that 0-5 years (4.30%), 6-10 years (21.30 %), 11-15 years (12.80 %), 16-20 years (19.10 %), and 21 years and above (42.60 %). The nature of the operation of the respondents 48.9 % worked in consulting organizations and 51.1 % worked in construction organizations

Table 1 background information of respondents

Academic qualification	Frequency	Percent	Cumulative percent
HND/BSC	85	36.2	36.20
MSC	115	48.9	85.10
PGD	10	4.30	89.40
PhD	25	10.6	100.00
Professional affiliation			
Quantity Surveyor	95	40.4	40.40
Architect	35	14.9	55.30
Builder	15	6.40	61.70
Engineer	90	83.3	100.00
Professional Registration			
QSRBN	95	40.4	40.40
ARCON	35	14.9	55.30
CORBON	15	6.40	61.70
COREN	90	83.3	100.00
Year of Experience			
0-5	10	4.30	4.30
6-10	50	21.30	25.50
11-15	30	12.80	38.30
16-20	45	19.10	57.40
21-and above	100	42.60	100.00
Nature of operation			
Contracting firm	115	48.90	48.90
Consulting firm	120	51.10	100.00

Table 2 shows the result of the study with the increase in health and safety awareness has the highest relative importance index of (0.864), while the subsequent results were: continuous

education and training (RII 0.855), occupational health and safety auditing for both employers and employees (RII 0.813), making reporting easier (RII 0.800), no contracts to be issued without health and safety policy and approval (RII 0.782), encourage the submission of self-assessment report to health and safety department (RII 0.753), increasing illness and accidents surveillance (RII 0.749), Trade Union participation (RII 0.749).

Table 2 Respondents view on the methods of improving reporting of occupational accidents

Methods	Sum	Mean	Std	RII	Ranking
Increase in health and safety awareness	1015	4.32	.855	0.864	1
Continuous education and training	1005	4.28	.870	0.855	2
Occupational health and safety auditing for both employers and employees	955	4.06	1.000	0.813	3
Making reporting easier	940	4.00	.852	0.800	4
Health and safety policy approval as a prerequisite for contract bidding	915	3.89	1.137	0.782	5
Encourage submission of self-assessment report to the health and safety department	885	3.77	1.038	0.753	6
Trade Union participation	880	3.74	.980	0.749	7
Increasing illness and accidents surveillance	880	3.74	.958	0.749	7

DISCUSSIONS

The finding of the study revealed that an increase in health and safety awareness has a role to play in the recording and reporting of occupational health and safety. This result is in line with advocacy by (Muchiri, 2009) (Nawarathna and Nayanthara, 2014) that awareness programs must be improved to reduce under-reporting and under-recording of the accidents. Awareness programs and development procedures should be related to accident reporting and accident prevention, this is to enhance the health and safety management system. Awareness will inform organizations and employees about the importance of data such as for planning and formulation of policy for the prevention of occupational accidents, allocation of resources, improving understanding of occupational hazards, and better work practices and procedures.

CONCLUSION

This study establishes the approaches to improving the recording and reporting of occupational accidents in the Nigerian construction industry. It is therefore essential to continue strengthening the recording and reporting system of occupational accidents as reliable information concerning accidents can be used for prevention. The finding indicates that an increase in health and safety awareness support employees and organizations on the relevance of data like understanding of occupational hazards by organizations and employees,

policy formulation, performance measurement, and adequate allocation of resources for the management of health and safety. Similarly, adequate health and safety training also serves as a guide on the identification of hazards.

RECOMMENDATIONS

Based on the results of this study, there is a need for the establishment of OSH education and training centers to be well distributed across each state in Nigeria. It will serve as national databanks for OSH research resources and literature, strengthen inspection programs, and support establishments that target to fulfill legislation and employees who wish to study about their rights and obligations. The centers must also be at the vanguard of stimulating, aids, and disseminating good practices. The study also recommends the improvement in the collection procedure of occupational accidents by the regulatory. Employees and employers are also encouraged to keep in the internal recording and reporting system.

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