



Occupational Health and Safety Practices for the Construction Sector's Projects Performance in Uganda

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Abstract

Background: Occupational Health and Safety (OHS) Practices have been set up to maintain workers' overall well-being during construction projects in Uganda. **Purpose:** This paper establishes the impact of undertaking OHS practices on the overall project performance. **Issues:** It was noted that the non-adherence to the OHS Practices on construction projects in Uganda was the major cause of various occupational accidents, diseases, and injuries that affected workers and neighboring communities. **Methodology:** A mixed methods study, containing interviews, questionnaires, and a review of documents was undertaken to examine the relationship between OHS Practices and the overall project's performance. **Findings:** The analysis revealed that it was essential to enforce Occupational Health and Safety Practices in order to attain the overall project performance. **Implications:** This study will increase awareness of the need to promote OHS Practices with the aim of achieving overall project performance.

Subject Areas

Green Networking

Keywords

Occupational Health, Occupational Safety, Project Performance, Construction Sector, Health, Risks, Hazards

1. Introduction

The paper examines the factors leading to the increasing cases of accidents relating to occupational hazards, diseases, and injuries that affect workers and neighboring communities where construction work has been carried out in Uganda. The

chapter focused on the background, problem statement, study purpose, and objectives.

In addition, there are questions and hypotheses, a framework, study significance and justification, and scope of key terms and concepts.

The 19th and 20th centuries saw employers own profitable ventures and during such a time, employee safety and health aspects for the workers were not their concern. However, in the United States, matters concerning injured workers were carefully managed and such victims were entitled to compensation for the injuries sustained. The cost of compensation minimized legal issues.

As businesses scaled and more employees were hired in industries and other large-scale entities, it was wise to establish the National Safety Council.

Like any other road construction project, there are significant OHS concerns that still exist in workplaces currently in Uganda. In such a state, OHS practices have been set up in order to promote the overall well-being of their workers. Safety focusing on protecting the physical well-being of people has been emphasized. Construction companies hired human resource managers and safety specialists to help coordinate OHS programs, investigate accidents, produce safety program materials and conduct formal safety training in line with their operations.

Non-adherence to Occupational safety & Health (OSH) Act 2006 [1] by stakeholders in Uganda's construction sector has been the major cause of various Occupational accidents, diseases and injuries that are affecting workers and neighboring communities. Inadequate training and awareness on the acceptance & compliance of the OSH Act 2006 also hinder its effectiveness. A general overview of OSH is therefore necessary for all stakeholders in the construction sector with regard to relevant & practical policies for promoting safety and health practices.

2. Objectives for the Study

The study aimed at assessing the effect of OHS practices on Uganda's construction sector's project performance.

To assess the effect of Occupational Health practices on Uganda's construction sector's project performance.

To find out the effect of Occupational Safety practices on Uganda's construction sector's project performance.

2.1. Hypothesis

The study tested two hypothesis statements including:

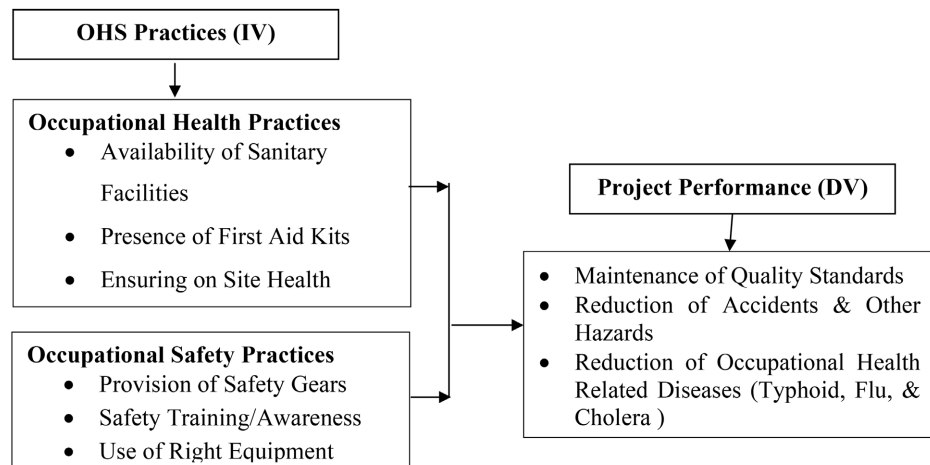
Occupational health practices significantly affect Uganda's construction sector's project performance.

Occupational safety practices significantly affect Uganda's construction sector's project performance.

2.2. Conceptual Framework

Based on the framework (See **Figure 1**), Occupational Safety and Health (OSH)

practices will form the IV, and project performance shall be the DV. OSH practices shall be categorized into health practices which will comprise of availability of sanitary facilities, the presence of first aid kits, and health checks. Safety practices will entail the provision of safety gear, safety training/awareness, and the use of the right equipment. It is assumed that a combination of health and safety practices on construction staff would improve project performance in terms of maintenance of quality standards, reduction of accidents and other hazards, and reduction of occupational health-associated diseases.



Source: Adopted and modified from Bilal (2016); World Health Organization (2014).

Figure 1. A conceptual framework indicating the relationship between occupational health safety practices and project performance.

2.3. Significance of the Study

The study provided the basis for formulating more operational OSH practices in Uganda. This research work will as well offer opportunities for workers and their entities to identify unique roles in the H&S issues. It shall provide the foundation for other actors including government departments in Uganda to use its remedies in designing effective H&S policy measures. The study shall be used as an information base for policymakers and also guide them during decision-making on the H&S issues and policies, especially in the growing oil sector.

2.4. Justification of the Study

Over the last 20 years, Uganda's Construction sector has been faced with increasing Occupational Health and Safety associated accidents for example the Bwebajja Building collapse in Uganda among others, and this led to loss of life, materials, and property. Therefore, the study will highlight the appropriate findings that will benefit the stakeholders in Uganda's engineering sector in finding possible solutions to the increasing accidents related to OHS. These findings will assist the government of Uganda in Consultation with the engineering sector stakeholders in drafting relevant OHS policy formulations that will greatly eliminate the hazards.

3. Review of OHS Practices and Project Performance

3.1. Occupational Health Practices and Project Performance

Study on occupational health revealed that inadequate sanitary facilities including access to toilets in workplaces were an abuse to workers, especially women workers (Venugopal *et al.*, 2016) [2]. Inadequate facilities cause some women to consume less, in order to avoid visiting facilities for long hours, thus exposing them to a risk of malnutrition and other health vices (Venugopal *et al.*, 2016) [2]. They recommended the purchase and installation of sanitary facilities to accommodate both male and female workers. However, little or no hint was mentioned about the acceptable standard or quality of sanitary facilities that should be in place. To start, Abihud, G. (2013) [3] study on OHS in Tanzania established that OHS improved employees' performance as employee absenteeism would be neutralized, productivity would up, and organisations would profit from employee tasks executed. In addition, OHS increases employees' satisfaction and reduces rates of staff turnover. Byars and Rue (2008) [4] also argued that the promotion of safety and health in an organization meant that the work environment was suitable as well as enjoyable for the workers. The scholars further added that unfriendly work environments manifested boredom, routine fatigue, and more stress which contributed to accidents. Adopting and emphasizing safety contests, and prize awards with the best safety record for a specified duration would deter any risks of accident and promote better performance.

The Encyclopedia (2009) [5] highlights that health awareness, constant surveillance, and provision of occupational health services for the workers would create a conducive working environment for their assigned responsibilities and improve organizational performance. It emphasizes awareness of persistent smoking, and alcohol-drug abuse among others which may better workers' health and deter possible illness. On the other hand, the World Health Organization Report of 2014 [6] recommends that occupational safety training be conducted to keep all workers aware/ informed about health-associated hazards in their workplaces. WHO further highlights that remedies to protect the health of the workers should be thoroughly laid out for the workers to understand and adhere to for better results.

It emphasizes the availability of well-stocked first aid facilities and awareness of employees on the first aid procedures in case of emergencies. However, much as the literature reveals more staff training as a way of improving OHS and performance, it seems to have ignored the increasing knowledge and skills gaps that affect the employees. This study will therefore assess how construction workers have been able to enhance their skills and knowledge level.

OHS recommend that site checks be adopted as one of the ways of overcoming the barriers to effective OHS practice in small construction companies (Wong *et al.*, 2015) [7]. They further argue that routine monitoring and evaluation of an entity's safety performance would deter any possible threats and risks that trigger

underperformance in any entity. The study will investigate how such checks have been deployed to ensure improved performance for the project.

3.2. Occupational Safety Practices and Project Performance

Personal protective equipment (PPE) including clothing and equipment worn by workers/employees among others protects them from encountering workplace hazards/accidents (Balkhyour *et al.*, 2019) [8].

They recommend that PPE is a preventive work-associated and the measures supplement hazard control intended to deter risk of injury. It promotes the productivity and overall performance of an entity. However, this study intends to find out how Construction companies have been able to deploy PPEs for their staff and how such PPEs have contributed to their safety while executing their roles.

The Occupational Safety and Health Act (2013) [8] stipulates the provision of a safe working environment for all; and ensures the absence of risks and potential health threats including storage and transport of substances among others. The Act further highlights the need to avail essential information, manuals/instructions, localized training, and tight supervision associated with OSH. To supplement, Whitaker, B., & Roberts, D. S. (2013) [9] conducted a study on safety management and found that management played an instrumental role in ensuring a comprehensive safety effort.

The scholars argue that employers needed to train on safety, and equipment management for instance machinery including emergency switches, safety rails, lighting, heating, and air conditioning to help them set up a safer working environment.

Several authors including Huang *et al.*, (2011) [10] conceded top-level training for employees in line with OSH practices. They argue that such training should be prioritized and have a more significant effect on the organization and its overall performance. The authors further note that training can be a self-assessment method for OSH and thus a valuable tool for continuous improvement in the working conditions of workers. Routine training is an important tool that can be used to reduce occupational health disparities among workers in an organization (O'Connor *et al.*, 2014) [11].

To them, training enhances workers' skills, competencies, and attitudes towards how a clean and environmentally free environment can be for their operations. They recommend that training of such employees should involve demonstrations of using appropriate personal protective equipment, and where to find manuals among other modes of delivery. The training would impact employee awareness and up their productivity thus improving performance.

As much as many standards have been put in place and adhered to deter occupational safety health and hygiene associated challenges problems in Uganda among these being the Ministry of Labour and Social Development, little or no evidence of such efforts have been documented which provides the gist for the

study.

4. Methodology

Literature relevant to this research topic was critically reviewed to explore the impact of undertaking OHS practices on the overall project performance in the construction sector. This entailed adopting a research design, population, sample, techniques, methods, and instruments to be used, data collection procedures, variable measurement, and ethical-related issues.

A descriptive research design was adopted. This approach involved describing events and recording them. The design used two approaches (Qualitative and Quantitative) approaches. For the Qualitative method, non-numeric data was collected and a quantitative approach was used to gather numeric data about the study. The findings were used to gather information about the association between the IV and DV. The study population targeted was 87 respondents comprising the site supervisors, masons/ skilled workers, semi-skilled workers/ casual workers, site engineers, drivers, and site administrators all of whom are engaged in ensuring OSH practices for construction projects.

5. Findings & Discussions

5.1. Participation in Research

Out of 87 participants, 76 responded of whom will include (2) site supervisors, site administrator (1), site engineers (2), (19) masons/ skilled workers and (52) casual workers (See **Table 1**).

Table 1. Sample size determination.

Category of respondents	Population (N)	Sample size (s)	Technique
Site supervisors	2	2	
Site administrators	1	1	Census
Site engineers	2	2	
Masons	21	19	Simple random
Casual workers	61	52	
Total	87	76	

Interviews were used to facilitate conversations between the interviewee and interviewer which allowed verbal and non-verbal communication and facilitated an effective way of gathering firsthand information. It facilitated probing and was used to capture facial expressions of interviewees; it was used on site supervisors, site administrators and site engineers.

There was a high response rate to questionnaires administered and the respondents were masons and casual workers. Documentary review was used to obtain information from published and unpublished sources for instance textbooks, magazines, journals and websites. In addition, it provided reliable and factual

information.

5.2. Findings

5.2.1. Occupational Health Practices and Project Performance

The first objective of the study was to assess the effect of occupational health practices on Uganda's construction sector's project performance. Occupational health practices were measured using nine questions provided in **Table 2**.

Table 2. Views on occupational health practices.

Questions on occupation health practices	Descriptive responses						
	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean	Std Dev (σ)
The construction sector engaged in occupational health practices	0%	66%	0%	26%	8%	3.45	0.972
There are sanitary facilities in this place	0%	0%	0%	90%	10%	4.11	0.309
The sanitary facilities are adequate	0%	83%	0%	8%	9%	3.58	0.956
I am allowed to use the sanitary facilities	0%	100%	0%	0%	0%	4.09	0.291
There are first aid kits installed in my company	0%	77%	0%	12%	11%	3.43	1.087
The aid kits are adequate	0%	71%	0%	9%	20%	3.37	1.056
My company does specific checks for its staff	8%	75%	0%	8%	9%	3.66	1.027
There exist site health checks in my company	11%	76%	0%	4%	9%	3.75	1.021
The site health checks are on spot and frequent	7%	63%	0%	9%	21%	3.25	1.338

Source: Primary data (2019).

Four items were set about the availability of sanitary facilities. These were answered as follows. The majority of the respondents (66%; mean = 3.45; std dev = 0.972) agreed that the company engaged in occupational health practices and (34%) disagreed. Further results indicated that all respondents agreed (100%; mean = 4.11; std dev = 0.309) that, there are sanitary facilities in place.

Quantified responses obtained revealed that 83% of respondents agreed that the sanitary facilities were adequate while 17% disagreed.

All respondents (100%) agreed that they were allowed to use the sanitary facilities implying that the convenience and advantages accruing out of these facilities time time-saving and increased production thus improving project performance. To complement the findings above, an interviewee (SA1) commented that, "*The sanitary facilities have promoted good sanitation and hygiene for our workers thus improving health*". While another responding project official voiced out, "*Once there are good health facilities for toilets, hand washing*

facilities have been provided to eliminate certain diseases like cholera thus saving them would-be medical costs. (SS2) Two questions were about the presence of first aid kits. The computations that were made indicated that, the majority of the respondents (77%; mean = 3.43) agreed that there were first aid kits installed in the company while 23% disagreed. In addition, 71% of respondents agreed that the first aid kits are adequate while 29% disagreed. The findings mean that the presence of well-equipped first aid kits reduced accident occurrences tremendously, facilitating more time for improved project performance. In a related interview, one site official said: *“The kits have favoured first aid personnel to offer aid to the injured workers on time thus reducing the severity of the accident consequences which in turn helps in saving time and costs and enhances project performance through increased productivity of workers”* (SS3).

Questions on ensuring site health checks had the following scores; 83% (mean = 3.66) of the respondents indicated the company does specific checks for its staff while 17% disagreed. While 87% of the respondents agreed that, there exist site health checks in the company, 13% disagreed.

In addition, 70% respondents agreed that the site health checks are on spot and frequent and 30% disagreed.

This implies that site health checks are mandatory. A key informant observed that, *“The site health checks have enabled all workers to maintain good hygiene thus reduced chances of diseases, increased savings and more production resulting into improved project performance”* (SE2). In another related interview, one Key respondent observed,

“The site health checks have promoted reduced accident occurrences due the elimination of possible hazards on our workers. This has helped to save on costs which are in turn used to facilitate workers in the form of allowances including extra work among others” (SE3).

5.2.2. Regression Results for Occupational Health Practices and the Construction Sector's Project Performance

The study adopted the linear regression coefficient so as to establish the effect of occupational health practices on Uganda's construction sector's project performance. The details of the computations are provided in **Table 3**.

Table 3. Views on occupational health practices.

Model	R	R ²	Adjusted R ²	Std. error of the estimate	Sig.
1	0.492 ^a	0.242	0.232	0.27044	0.000

Predictors: (Constant), occupational health practices.

Based on **Table 3**, the r^2 score = 0.232 suggests that occupational health practices explained a 23.2% variance in Uganda's construction sector's project performance. The variance of 76.8% was attributed to other factors. Therefore, hypothesis

occupational health practices significantly affect project performance was accepted.

5.3. Occupational Safety Practices and Project Performance

The second objective of the study was to find out the effect of occupational safety practices on Uganda's construction sector's project performance. Occupational safety practices were measured using eight questions from which provided in **Table 4** are the responses that were obtained.

Table 4. Views on occupational safety practices.

Questions on occupation safety practices	Descriptive responses						
	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean	Std Dev (σ)
I understand organizational safety practices	5%	63%	0%	17%	15%	3.28	1.239
Safety gears are provided to staff	0%	78%	0%	9%	13%	3.42	1.111
The safety gears are adequate	72%	9%	0%	12%	7%	3.66	1.027
There is safety training/awareness	0%	66%	0%	13%	21%	3.18	1.174
Safety training/awareness enhances staff skills and competences	4%	65%	0%	12%	19%	3.21	1.299
I am aware of existing equipment used by my company	9%	65%	0%	5%	21%	3.53	1.089
I am tasked to use company equipment	0%	82%	0%	12%	6%	3.51	1.052
I use the right equipment for my work	8%	79%	0%	4%	9%	3.78	0.873

Source: Primary data (2019).

Questions were asked about provision of safety gear. The following were respondents' opinions. 68% respondents agreed that they understood organizational safety practices and 32% disagreed. While 78% respondents agreed that, safety gears were provided to staff however, 22% disagreed.

In addition, 81% of the respondents agreed that, the safety gears were adequate and 19% disagreed respectively which implies that the company considers safety as number one priority for all its staff as it is intended to provide adequate safety for elimination of any possible injuries that may occur during work thus saving time and possible costs for increased productivity.

Responses to the questions about safety training awareness included; mean = 3.18 indicates that, majority of the respondents agreed that there was safety training/awareness. Further still, the mean = 3.21 suggests that many of the respondents agreed that safety training/awareness enhanced staff skills and competence meaning that the construction sector engages all its existing and newly recruited workers in safety awareness programs using workshops. "*Training of Workers on safety awareness has inculcated a sense of responsibility among workers, especially*

in regard to wearing safety gear during work which has reduced site injuries” said a Key Informant (SO₂).

The responses on the use of the right equipment as one of the IV indicators were as follows. The majority of the respondents agreed (74%) that, they were aware of existing equipment used by their company and 36% of the respondents disagreed. In another context, 82% of the respondents agreed that they were tasked to use company equipment however, 18% disagreed. Furthermore, 87% of respondents agreed that they used the right equipment for their work although 13% of the respondents disagreed. The findings suggest that construction sector stakeholders avail work-related tools for instance wheel barrows, site plate compactors, concrete mixers, and vibrators among others for its workers to use. This simplifies their work and enables improved performance.

The findings mirror what an interviewee said; “*At every road project that we have, a number of tools have been put in place to aid the execution of work.*”

5.3.1. Regression Results for Occupational Safety Practices and Construction Sector’s Project Performance

The study adopted the linear regression coefficient so as to establish the effect of occupational safety practices on project performance.

The details of the computations are provided in **Table 5**.

Table 5. Regression results for occupational safety practices.

Model	R	R ²	Adjusted R ²	Std. error of the estimate	Sig.
1	0.757 ^a	0.573	0.568	0.36214	0.000

Predictors: (Constant), occupational safety practices.

Based on **Table 5**, the r^2 score = 0.573 suggests that occupational safety practices explained up to 57.3% variance in project performance. The variance of 42.7% was attributed to other factors. Therefore, hypothesis statement two that, *occupational safety practices significantly affect project performance* was accepted.

5.3.2. Project Performance

Project performance as a dependent variable was measured in terms of maintenance of quality standards, reduction of accidents and other hazards, reduction of occupational health associated diseases. These sub-dimensions were measured using seven questions and **Table 6** shows the responses.

Questions on maintenance of quality standard were answered as follows; a mean of 3.57 and std dev of 0.934 indicates that majority of the respondents agreed that, the construction sector has quality standards in place and mean of 3.36 indicates that staff contribute to the required quality standards which implies that the construction sector staff are required to implement and work in conformity with the set engineering procedures thus improving expected performance.

Two questions were asked about the reduction of accidents and other hazards. These were answered as follows; 92% of the respondents agreed that there are accidents and hazards encountered by staff within the company while 8% disagreed.

The majority of the respondents (72%) agreed that the accidents and hazards have been reduced, but 28% disagreed implying that reduced accidents lead to increased time saved for more productive work that leads to improved project performance.

Table 6. Views on project performance.

Questions on project performance	Descriptive responses						
	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean	Std Dev (σ)
The construction sector has quality standards in place	0%	81%	0%	10%	9%	3.57	0.934
I contribute to the required quality standards of the construction sector	0%	75%	0%	11%	14%	3.36	1.151
There are accidents and hazards encountered by staff in the construction sector	0%	92%	0%	3%	5%	3.82	0.647
The accidents and hazards have been reduced	0%	72%	0%	7%	21%	3.39	1.156
Staffs are affected by occupation health related diseases	16%	29%	0%	55%	0%	2.95	1.221
The diseases reduce on the way they are expected to perform	0%	80%	0%	20%	0%	3.61	0.801
The construction sector has measures in place to deter occupation health related diseases from re-occurring	0%	82%	18%	0%	0%	3.82	0.390

Source: Primary data (2019).

Evidence obtained from one of the documents reviewed that, safety signs were installed at potential vulnerable work areas to deter possible accidents (Occupational Health Act 2013). The responses on the reduction of occupational health diseases with results were recorded for instance 55% of respondents agreed that staff are affected by occupational health-related diseases however, 45% disagreed. Findings recorded revealed that many of the respondents (80%) agreed that, the diseases reduced on the way workers are expected to perform nonetheless 20% disagreed.

Further findings revealed that many of the respondents (82%) agreed that, the construction sector has measures in place to deter occupation health-related diseases from re-occurring however, (18%) disagreed meaning reduced disease occurrence has facilitated increased work output leading to improved project

performance.

5.4. Summary of Findings

5.4.1. Occupational Health Practices and Construction Sector's Project Performance

The study found that occupational health practices had a significant effect (23.2%) on Uganda's construction sector's project performance. The hypothesis that, occupational health practices significantly affect project performance was accepted. Therefore, it is summarized that, occupational health practices are critical for a construction project. While putting sanitary facilities in this place improves hygiene, installing and using first aid kits stabilizes the health of construction workers.

5.4.2. Occupational Safety Practices and Construction Sector's Project Performance

The findings established that occupational safety practices were key to project performance. Therefore, it is summarized that, putting in place occupational safety and health management plan implementation strategies and the use of protective gear while on site can reduce project site accidents and injuries which ultimately results in improved project performance. This improved performance can be seen through employees' satisfaction and reduces rates of staff turnover since employees find the work environment suitable for work.

5.5. Discussions

The section of the study facilitated a discussion based on two objectives, namely, to assess the effect of occupational health practices on Uganda's construction sector's project performance and to find out the effect of occupational safety practices on Uganda's construction sector's project performance.

5.5.1. Occupational Health Practices and Construction Sector's Project Performance

Key findings obtained on objective one of the study showed that, availability of occupational safety practices in form of provision of safety gears, safety training/awareness and use of the right equipment by the company workers would trigger an improvement in the working environment of the road sector employees and drive them towards executing their tasks thus leading to an improvement in project performance. The study findings further revealed that, occupation health practices are instrumental in realizing Uganda's construction sector's project performance.

These inferential findings show a similar trend with the descriptive statistics that, were obtained for instance, it was found out that, the construction sector purchased and installed adequate sanitary facilities for its employees and engaged in conducting site health checks for its employee, all intended to improve their productivity and realize improved project performance.

Further qualitative evidence recorded revealed that, *sanitary facilities have promoted good sanitation and hygiene for our workers thus improved health* and another responding project official voiced out that, “*once there are good health facilities for toilets, hand washing facilities have been provided to eliminate certain diseases like cholera thus saving the would be medical costs*”. The findings concur with evidence as was provided by (Venugopal *et al.*, 2016) [2] study on occupation health which revealed that, inadequate sanitary facilities including access to toilets in a workplaces was an abuse to workers especially women workers. (Venugopal *et al.*, 2016) [2] add that, such inadequate facilities causes some women to consume less, in order to avoid visiting facilities for long hours, thus exposing them to a risk for malnutrition and other health vices. The researcher argues that, availability of sanitary facilities allows workers to have access to toilets and bathrooms among others which are required for workers hygiene respondents. However, some negative recordings were made and complemented by the disagreed scores where it was found out that, few workers had the right to obtain proper information on availability of sanitary facilities which increased their indiscriminate defecation of human waste within the nearby bushes. Another issue of concern during the study regarding sanitary facilities was that, these facilities as installed by the construction sector were of substandard and seemed not to conform to the acceptable standard. Linked to the above, were findings obtained where it was found out that, the construction sector stakeholders had purchased and installed first aid kits and used them. The findings are supported by Kinyili, J. M. (2019) [12].

who argued that the promotion of safety and health in an organization meant that the work environment was suitable as well as enjoyable for the workers. The scholars further added that unfriendly work environments manifested boredom, routine fatigue and more stress which contributed to accidents. More still, Abihud's (2013) [13] study on OHS in Tanzania established that, OH improved employees' performance as employee absenteeism would be neutralized, productivity would up, and organizations would profit from employee tasks executed. From the researcher's point of view, first aid kits are necessary to support the treatment of ailments as well as injuries whether minor or major while at work. In addition, first aid kit helps to reduce the risk of infection or the severity of the injury. However, it was established that, despite having first aid kits in place, first aid health and safety procedures were lacking and yet sensitization was inadequate deviating from the existing down policies, rules and safety precautions to deter rampant accidents within the construction sector.

Further evidence recorded indicated that the construction sector conducted checks for its staff. These revelations concur with (Wong *et al.*, 2015) [14], who according to their study on OHS recommended that, adopting site checks was one of the avenues for overcoming the barriers to effective OHS practice in small construction companies. The scholars further argued that, routine monitoring and evaluation of an entity's safety performance would deter any possible threats and

risks that trigger underperformance in any entity.

To the researcher, health site inspections can help prevent work associated accidents, incidents and injuries among others that may derail the workers from executing assigned tasks.

Regular site inspections are an important component of the overall occupational health and safety program and administration system that is demanded for a good working environment in the construction industry. However, disturbing issues were provided by some of the respondents who disagreed to the statement.

They cited issues such as delays in conducting health site surveys were common while mistiming of such visits was common and the project was seen to deviate away from being solely responsible for the application of the safety and health measures in respect of the employees placed under their authority. A combination of these was found to compromise expected project performance and lead to sub-standard services.

5.5.2. Occupational Safety Practices and Construction Sector's Project Performance

Key findings guided by the second objective of the study which was to find out the effect of occupational safety practices on Uganda's construction sector's project performance revealed that OS practices positively contributed to an improvement in the performance of projects. This said, it was noted by the many respondents that, the construction sector was found to provide safety gear as a form of occupation safety practice while further evidence recorded revealed that, such gears were actually adequate. These revelations are supported by (Balkhyour *et al.*, 2019) [8] who argued that, personal protective equipment (PPE) including clothing and equipment as worn by workers/employees among others protect them from encountering workplace hazards/accidents.

They recommended that, PPE as a preventive work-associated and the measures supplement on hazard control intended to deter risk of injury. It promotes productivity and overall performance of an entity. The results of the study indicate the use of protective gear while on site as part of an effective occupational safety and health management plan can help reduce project site accidents and injuries. This is illustrated by the 61% respondents representing a majority that, strongly agreed that enforcing the use of protective gear while on site can help reduce project site accidents and injuries. This shows that, indeed OSH practices significantly affect project performance. Nonetheless, opinions gathered on the other hand, revealed that, the quality of the safety gears were an issue of concern that, threatened the lives of workers including head injuries etc. Further to note, pockets of inadequate precautions were still evident which threatened workers' safety environment.

Many of the respondents indicated positively that, training on OS practice was done. Similarly, many of the respondents agreed that training led to improvement in staff skills and competences. The findings of the study indicated that sensitization

of site personnel on occupational safety and health (OSH) is one of the measures put in place by site supervisors to promote occupational safety and health (OSH) on project sites. This finding is in line with recommendations of the World Health Organization (WHO) in a report produced in 2014 which recommends that occupational safety training be conducted to keep all workers aware/ informed about health associated hazards in their workplaces. WHO further highlights that remedies to protect the health of the workers should be thoroughly laid for the workers to understand and adhere with for better results.

Further to note, the revelations provided above are in line with Huang *et al.*, (2011) [15] conceded top level training for employees in line with OSH practices. They argued that such training should prioritize and have a greater effect on the organization and its overall performance.

The authors' further note that training was a self-assessment method for OSH and thus a useful tool for continuous improvement in the working conditions of workers. While the Uganda's Occupational Safety and Health Act (2013) stipulates for the provision of a safe working environment for all; ensured absence of risks and potential health threats in terms of handling, storage, transport of articles and substances. The Act further highlighted for the need to avail key information, manuals/instructions, localized training and tight supervision associated with OSH. On the negative, it was found out that, inadequate sensitization of existing and newly recruited workers on OSH policy was one of the main reason to why sterling construction company in Uganda had partially failed to fully embrace OSH practices and hence an avenue for reduced performance.

On the issue of equipment, it was established that, the construction sector had adequate equipment in place while respondents agreed that, they were tasked to use the company equipment. To supplement, Robert and John (2004) [16] conducted a study on safety management found out that management played an instrumental role in ensuring a comprehensive safety effort. The scholars argue that employers needed to train on safety, equipment management for instance machinery including emergency switches, safety rails, lighting, heating and air conditioning to help them set up a safer working environment.

The ease of use machinery, plant, and equipment including hand tools, both manual and power-driven indicated the presence of key tools for the workers and therefore an avenue to improved productivity and increased performance. However, it was noted that safe operating procedures were restricted to a few places meaning that few workers were informed about protective guards, shields, or other devices as required by the standards. Furthermore, supervision gaps since supervisors were insufficient thus trained personnel were partially available during all working periods. This restricts the full deployment of equipment to be used at the site thus affecting performance.

6. Conclusion of the Study

The conclusion of the study was based on two objectives, namely, to assess the

effect of occupational health practices on Uganda's construction sector's project performance and to find out the effect of occupational safety practices on Uganda's construction sector's project performance.

6.1. Occupational Health Practices and the Construction Sector's Project Performance

The study found that occupational health practices and project performance moved in the same direction. In addition, the availability of sanitary facilities, the presence of first aid kits, and ensuring proper site health checks would improve project performance. The study concludes that occupational health practices significantly affect project performance.

6.2. Occupational Safety Practices and Construction Sector's Project Performance

The study established that occupational safety practices had a 57.3% variance in Uganda's construction sector's project performance. In addition, safety gear, safety training/awareness, and the right equipment must be provided.

Therefore, it is concluded that occupational safety and health significantly lead to proper project performance in the construction sector.

7. Practical Implications

Following the discussion held on why construction companies in Uganda fail to embrace OSH practices which hinders their performance. The following were recommended based on the objectives.

7.1 Occupational Health Practices and Construction Sector's Project Performance

Active OHS committees should be formed to enforce and promote the adoption of site health and safety practices, which will lead to time and cost savings by reducing and eliminating injuries. Construction companies should put in place active and responsive health and safety committees which should be given full mandate to implement their recommendations.

As suggested by Assey (2019) [17], copies of organizational health and safety procedures should be given to employees in order to make them aware of the laid down policies, rules, and safety precautions to reduce accidents in the organization.

7.2 Occupational Safety Practices and Construction Sector's Project Performance

There is a need for the government to establish a monitoring team to visit construction projects and companies and evaluate their safety policies and measure their levels of compliance. The safety policies of business organizations must not be taken for granted and must be effectively implemented to the letter and adherence must be monitored at every instance.

Conflicts of Interest

The author declares no conflicts of interest.

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