

## Study on Labour Safety for Construction Companies in Mogadishu, Somalia

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### ABSTRACT

In Somalia, one of the main economic sectors is construction. The construction industry has had tremendous expansion globally, especially in the previous ten years. Building safe structures and giving workers a safe workplace is essential for a successful construction business. As a result, managing safety is crucial to the success of construction projects. Safety must be a priority from the beginning of the design process all the way through to the owner receiving the facilities. The majority of the workforce in the construction business, which employs a sizable workforce, are laborers and skilled workers. The study goals are to find obstacles to implementing construction safety, identify the main factors that contribute to accidents on projects undertaken by construction companies, and examine the contribution of construction safety practices to the incidence reduction in the workplace on such projects. The study's descriptive design was used. 70 employees of construction enterprises made up the study's population. To choose the respondents of the research, a purposeful selection technique was utilized. The study has 59 people as its sample size. The surveys made it easier to gather the primary data that was utilized. To get at the results, a quantitative research strategy was used. The study used SPSS, version 20, to do panel data analysis. The study's findings show that 34 (58%) of the respondents strongly agree with the researchers' recommendation that managers of construction companies should provide their workers with safety gear in order to improve the efficiency of those businesses. To reduce risk and accidents on the job site, construction company managers should encourage safety among their staff.

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### Introduction

The conception, planning, implementation, and maintaining of a building and civil engineering projects collectively comprise the construction industry. These projects often involve large-scale capital investments in the form of dams, power plants, irrigation systems, health care facilities, hospitals, educational institutions, warehouses, industries, offices, and residential properties. Most agree that the most significant element of an investment program in a developing nation is construction. A nation's economic development is significantly impacted by the building sector as a result of its significant contribution [1]. One difficulty that the building sector in developing nations must overcome is safety. One fatal accident happens every ten minutes at construction sites worldwide, according to estimates of 55,000 fatal incidents every year [2]. The death and injury rates for the construction industry in sub-Saharan Africa are 21 and 16,012 per 100,000 employees, respectively [3]. The United States of America (USA) had a fatality rate in the construction industry of 9.6 per 100,000 workers in 2008, which was higher than the nation's overall mortality rate of 3.6 per 100,000 workers. The rate of death in the construction business in Spain, a nation with among of the worst accident rates in the EU, was 20.1 per 100,000 workers in 2003 as opposed to 7.5 per 100,000 workers nationwide (all sectors) [2]. The rates of fatalities and injuries per 100,000 employees

in Asia are 21.5 and 16,434 correspondingly [3]. Construction accident data in poor nations may not be as accurate as they should be because of inadequate documentation and notification mechanisms. Nevertheless, the aforementioned data show that building safety is a global issue, and that poor nations are more affected than industrialized ones [4]. A particularly dangerous area of the economy is construction. The performance of the sector in terms of occupational health & safety is quite low. The standard of workplace health and safety is noticeably lower in less developed countries. Construction-related OHS has never been prioritized in Somalia. Despite the fact that Somalia's construction sector is greatly expanding, the government has not taken the appropriate steps to adopt OHS laws and regulations. In developed nations, worker health and safety has recently improved, but in developing nations like Somalia, particularly in public construction projects in Mogadishu, it has not. The real number of accidents is therefore larger than the number that was reported, and there is a wealth of information on worker health and safety. For instance, in Mogadishu, the construction sector is marked by a high occurrence rate of accidents.

### Literature Review

According to a study, failure to utilize personal protective equipment is one of the top five causes of accidents in Addis Ababa public building construction projects, making it a practice that has to be improved significantly (PPE), Lack of safety training, improper

loading arrangement and placement, illiteracy, negligence and carelessness, inadequate work environment management, adopting risky attitudes or postures, and lack of experience all contribute to accidents [5]. Putting less emphasis on safety because of organizational culture differences and subcontractors' weaker negotiating position compared to major contractors, deadline-driven projects, improperly conducted drug tests, subcontractor obstruction, and project members' lack of involvement in the SMS implementation were found to be the top obstacles [6]. An efficient SMS for the construction industry may significantly reduce occupational accidents and sickness. Lower accident-related expenditures are the result. Reduced absenteeism, decreased turnover, increased output, and enhanced staff morale are further advantages [7]. Furthermore, the most recent figures show that falls from heights were the cause of the greatest number of fatalities in the construction industry in Europe. This amounts to 52% of all incidents, with 36% of accidents on construction sites resulting in fatalities as a result of things falling from above [8]. According to "Safety training and awareness" is rated as the first factor influencing proper or improper safety management in the construction sector, "Workers' Attitude Toward Safety," safety inspections, and organization safety policy come in order of importance (ranked third, fourth, and fifth, respectively) [9]. According to safety concerns must be taken into account at every step of the building's construction, including design and handover [10]. Workers in the construction industry, both skilled and unskilled, confront health and accident risks on the job site. For safe working conditions, which are severely lacking in Indian construction enterprises, effective coordination between contractors, customers, and the employees is required. Despite the existence of labor safety standards, there are still a lot of accidents occurring on construction sites. The management's dedication to the workers' health and safety is also behind. Because Somali construction companies do not implement construction safety practices, our study sought to raise awareness among construction companies about the need for effective construction safety. Finally, we sought to achieve effective management in the construction sector to prevent worker injuries and to maintain work activity [11-19].

**Methodology**

This investigation was conducted in Mogadishu, Somalia. This study employed quantitative methods and carried out an appropriate examination of the data. Descriptive research methods were employed in the study. A descriptive survey design illustrates current events by assessing people's opinions, attitudes, behaviors, and values (Kothari, 2008). The descriptive and inferential statistics in SPSS were used to produce tables containing the analyzed data. This inquiry was divided into three main sections. The target group, which also includes senior management, labor management, and engineers, consists of 70 individuals from the construction industry.

**Results and Discussion of The Study**

Table 1 shows the majority of participants are male and females are lowest participant population. 85% of participants are male and 15% are female. The majority of participants' age is 15-25 it performs 35% of total participants, and 28% of participants age is 46-55, and 21% of participants age is 26-35 and, while 10% of participant's age is 36-45 and in last 6% of participants' age is 46-55. Table 1 shows that 34% of participants experience are less than 5 year, 32% of participants experience are 5-10years, 34% of participants experience is between 10up to 15years. The position of participants is varied, Table 1 shows that 15% of participants are managers, 25% of participants are site engineers, and 60% of participants are labors.

**Table 1**

Demographic data	Categories	Frequency	Percent%
Gender	Male	50	85
	Female	9	15
Age	15-25	21	35
	26-35	12	21
	36-45	6	10
	46-55	16	28
	56-65	4	6
Work experience	Less than 5years	20	34
	5-10 years	19	32
	10-15 years	20	34
Position	Managers	9	15
	Engineers	15	25
	Labors	35	60

**Table 2: Lack of Personal Protection Equipment Is One of The Primary Causes of Accidents in Construction Projects.**

In the table 2 indicated that 27(46%) of the respondents were answered agree the primary causes of accident in construction companies' projects is lack of personal protective equipment followed by 14(24%) were answered strongly agree the same idea while only 11(19%) of the respondents were answered disagree and finally 7(12%) of the respondents were said strongly disagree. and this shows The major causes of accident in construction companies projects is lack of personal protective equipment.

Items	Frequency	Percent%
Strong disagree	7	12
disagree	11	19
agree	27	46
Strongly agree	14	24
total	59	100

**Table 3: Preventing Accidents Is So Important for Projects in Construction Companies.**

In the table 3 indicated that 32(54%) of the respondents were answered agree that Preventing accident is so important for projects in construction companies. Followed by 14(24%) were answered strongly agree the same idea while 11(19%) of the respondents were answered disagree and finally 2(3%) of the respondents were said strongly disagree and this shows Preventing accident is so important for projects in construction companies.

Items	Frequency	Percent%
Strongly disagree	2	3
disagree	11	19
agree	32	54
Strongly agree	14	24
total	59	100

**Table 4: Every Project Have Safety Supervisor on Site.**

In the table 4 indicated that 20(34%) of the respondents were answered strongly agree Every project have safety supervisor on site followed by 19(32%) were answered agree the same idea

while 15(25%) of the respondents were answered disagree the same idea and finally 5(8%) of the respondents were said strongly disagree and this shows preventing accident is so important for projects in construction companies.

Items	Frequency	Percent%
strongly disagree	5	8
Disagree	15	25
Agree	19	32
strongly agree	20	34
Total	59	100

**Table 5: Lack of Training Is Factor Affect Constraints in Implementing Construction Safety in Construction Company's Projects**

In the table 5 indicated that 34(58%) of the respondents were answered strongly agree Lack of training is factor affect constraints in implementing construction safety in construction company's projects followed by 17(29%) were answered agree the same idea while 6(10%) of the respondents were answered disagree the same idea and finally 2(3%) of the respondents were said strongly disagree and this shows Lack of training is factor affect constraints in implementing construction safety in construction company's projects.

Item	Frequency	Percent%
Strong disagree	2	3
Disagree	6	10
Agree	34	58
Strong agree	17	29
Total	59	100

**Table 6: Implementing Construction Safety Is High Quality for Safety in Construction Companies' Projects.**

In the table 6 indicated that 27(46%) of the respondents were answered agree Implementing construction safety is High quality for safety in construction companies' projects. followed by 16(27%) were answered strongly agree the same idea while 15(25%) of the respondents were answered disagree the same idea and finally 1(2%) of the respondents were said strongly disagree and this shows Implementing construction safety is High quality for safety in construction companies' projects.

Items	Frequency	Percent%
Strongly disagree	1	2
disagree	15	25
agree	27	46
Strongly agree	16	27
total	59	100

**Table 7: Absence of Equipment Is Most Factors Causes Constraints in Implementing Construction Safety in Construction Companies' Projects.**

In the table 7 indicated that 26(44%) of the respondents were answered agree Absence of equipment is most factors causes constraints in implementing construction safety in construction companies' projects. followed by 21(36%) were answered strongly agree the same idea while 7(12%) of the respondents were answered disagree the same idea and finally 5(8%) of the

respondents were said strongly disagree and this shows Absence of equipment is most factor causes constraints in implementing construction safety in construction companies' projects

Item	Frequency	Percent%
Strong disagree	5	8
Disagree	7	12
Agree	26	44
Strong agree	21	36
Total	59	100

**Table 8: Educated Workers Reduces Constraints in Implementing Construction Safety in Construction Companies' Projects**

In the table 8 indicated that 30(51%) of the respondents were answered agree Educated workers reduces constraints in implementing construction safety in construction companies projects followed by 16(27%) were answered disagree the same idea while 12(20%) of the respondents were answered strongly agree the same idea and finally 1(2%) of the respondents were said strongly disagree and this show Educated workers reduces constraints in implementing construction safety in construction companies projects

Items	Frequency	Percent%
Strong disagree	1	2
disagree	16	27
agree	30	51
Strongly agree	12	20
total	59	100

**Table 9: Managers Encourage and Support Workers for Safety Programs**

In the table 9 indicated that 26(44%) of the respondents were answered disagree Managers encourage and support workers for safety programs followed by 15(25%) were answered strongly disagree the same idea while 14(24%) of the respondents were answered agree the same idea and finally 4(7%) of the respondents were said strongly agree and this show Managers encourage and support workers for safety programs

Items	Frequency	Percent%
Strongly disagree	15	25
disagree	26	44
agree	14	24
Strongly agree	4	7
total	59	100

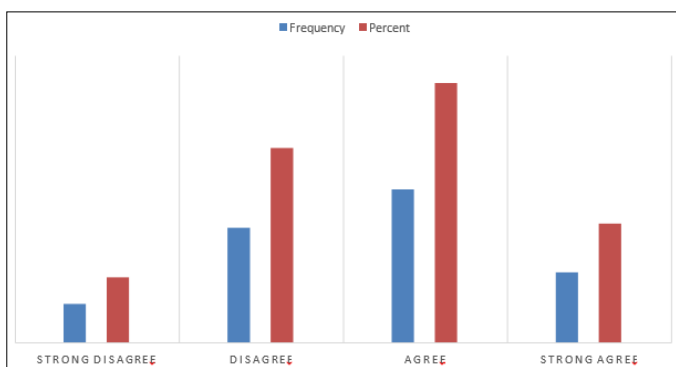
**Table 10: Safety Shoes is Safety Equipment in Working Area For Construction Companies' Projects.**

In the table 10 indicated that 31(53%) of the respondents were answered agree Safety Shoes is safety equipment in working area for construction companies' projects followed by 11(19%) were answered strongly agree the same idea while 12(20%) of the respondents were answered disagree and finally 5(8%) of the respondents were said strongly disagree and this show Safety Shoes is safety equipment in working area for construction companies' projects

Items	Frequency	Percent%
Strongly disagree	5	8
disagree	12	20
agree	31	53
Strongly agree	11	19
total	59	100

**Table 11: Company Have A Written Safety Rules & Regulations Is Significant for Safety Practice**

In the table 11 indicated that 24(41%) of the respondents were answered strongly agree Company have a written Safety rules & regulations is significant for safety practice followed by 18(31%) were answered disagree the same idea while 11(19%) of the respondents were answered agree the same idea and finally 6(10%) of the respondents were said strongly disagree and this show Company have a written Safety rules & regulations is significant for safety practice



Items	Frequency	Percent%
Strongly disagree	6	10
disagree	18	31
agree	24	41
Strongly agree	11	19
total	59	100

During information gathering of this study, we have met more than 59 respondents from different Construction Companies; basically, we have asked three questions of study we are analyzing. The first questions were: What are identify the constraints in implementing construction safety in construction companies' projects? 42 The highest of percentage 27(46%) of this question for respondents were answered agree implementing construction safety is High quality for safety in construction companies in projects. Followed by 16(27%) were answered strongly agree the same idea while 15(25%) of the respondents were answered disagree 1(2%) were answered strongly disagree, so finally the most of respondent agree implementing construction safety. The second question was: What are the main reasons accidents happen on projects for construction companies? The majority of the primary causes of accident in construction firm projects are, according to this proportion, 27 (or 46%) of the respondents who were asked if they agreed that a lack of personal protective equipment is a major cause of accidents on projects. Followed by 14(24%) were answered strongly agree the same idea while only 11(19%) of the respondents were answered disagree and finally 7(12%) of the respondents were said strongly disagreed. And third question we have asked was what are role construction safety practices in incidence reduction in working area in construction companies' projects? Finally, the percentage

24(41%) of the respondents were answered strongly agree Company have a written Safety rules & regulations is significant for safety practice followed by 18(31%) were answered disagree while 11(19%) of the respondents were answered agree and finally 6(10%) of the respondents were strongly disagree and this show Company have a written Safety rules & regulations is significant for safety practice. The respondents are given different answers according different aspects but the majority is recommended to increase the quality of high safety Materials.

### Conclusion and Recommendations

Safety in construction projects is essential since it affects people's health and lives. By carrying out safety management responsibilities and creating a supportive safety atmosphere, project management professionals have a crucial duty and role to play in providing safety leadership and controlling safety hazards. To fulfill these duties and functions, construction project management employees must develop a variety of talents, including conceptual, human, political, and technical skills. In order to lower the likelihood of workplace injuries, safety on building sites must be given first priority. One of the key elements influencing the perception of the project manager and the company is safety, according to research. The main purpose of this study is to investigate the issue of inadequate construction safety. Researchers discovered that safety materials are crucial for all construction firms, and they advised doing so in order to increase productivity Site layout, first aid, illumination, personal protective equipment, and welfare services are just a few strategies that can be used to ensure worker safety. These tactics include 44 safety policies, 44 safety organizations, 44 safety training programs, and 44 safety committees. When a company provides personal protective equipment (PPE) to its workers, fewer accidents occur during construction. Additionally, PPE helps When a company provides personal protective equipment (PPE) to its workers, fewer accidents occur during construction. Additionally, PPE helps to: improve safety procedures and construction productivity; develop occupational health and safety concerns; improve labor training to become skilled personnel; supervise and implement safety measures. Managers of the firms will recommend Safety items to their workforce. Materials to be utilized by competent staff.

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